

**DISMISSIVISM IN METAPHYSICS :
DEBATES ABOUT WHAT THERE IS AND DEBATES ABOUT
WHAT GROUNDS WHAT**

Laura Cecilia Porro

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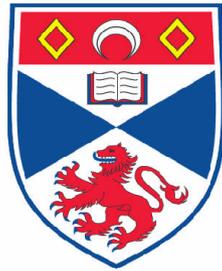
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Dismissivism in Metaphysics: debates
about what there is and debates about
what grounds what

Laura Cecilia Porro



This thesis is submitted in partial
fulfilment for the degree of PhD at the
University of St Andrews

Abstract

In this thesis I focus on dismissivism in metaphysics. Some philosophers argue that at least some metaphysical disputes are not substantial, and as a consequence should be dismissed. In this work I restrict my attention to metaphysics and focus on debates about existence and grounding. In particular I am interested in finding out whether there is a difference between the possible options available for dismissing debates about what there is and the possible options available for dismissing debates about what grounds what. I will delve into this in two different steps. First of all I explore the possibility to dismiss debates about what there is, and as a case study I analyse the debate between three-dimensionalism and four-dimensionalism. Secondly I delve into whether it is possible to dismiss debates about what grounds what, thanks to the discussion of another case study, i.e. the debate between tropes ontologies and universals ontologies. It is worth exploring the nature of dismissivism, because it bears on the future of philosophy. If philosophy has to have a future, we have to make sure that at least some disagreements within it are substantial.

My conclusions will be that metaphysical debates about what there is can be dismissed for a variety of reasons (semantic, epistemic, . . .). I also argue there is no general formula to find out whether a specific debate should be dismissed. On the other hand I argue that debates about what grounds what should be dismissed. I offer two distinct arguments in favour of my claim. Firstly, I argue that disputants are having a verbal dispute when they talk about what grounds what, and thus their disagreement is non genuine. Secondly, I argue that the notion of grounding is underspecified, because it cannot be properly distinguished from causation.

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Introduction

If an American English speaker asks for chips in a UK pub, he might be surprised to be given long cuts of fried potato. He complains to the waiter because he wanted flat round slices of fried potato instead. That, he says, is what the word ‘chips’ means. The waiter replies that what the customer wants are crisps, not chips. With a simple ordinary dispute like this one it is easy to find the reason why people disagree, and help people get out of the disagreement, without too much fuss. Nobody would trouble himself to think about this much, not even a philosopher. The customer speaks American English, and the waiter British English. In the former language, ‘chips’ refers to flat round slices of fried potato, while in the latter language ‘chips’ refers to long cuts of fried potato. The American speaker can quickly learn that in the UK ‘crisps’ means what he normally means by ‘chips’ and happily get the food he wants.

Consider now Manley [2009, p. 8]’s example of a common verbal misunderstanding:

John: Footballs are round and usually black and white.

Ted: No, footballs have two points and are usually brown.

John and Ted are having a verbal misunderstanding because John speaks British English, while Ted speaks American English. It is usually easy to solve this kind of dispute, when only footballs at stake. Things are not so easy when we turn to philosophical disagreements. In this field philosophers disagree about all sorts of topics: existence, methodology, logic, ethics, aesthetics, historical analysis, . . . For instance, take the following ontological dispute about the existence of footballs:

John: There are footballs (by which I mean round objects, usually black and white).

Ted: No, there are no footballs (by which I mean round objects, usually black and white).

Since philosophical disputes about, e.g., what there is are usually more complex than ordinary disputes about food, and it is much tougher to find out why philosophers disagree. The first question that comes to mind is: are philosophers disagreeing because they use words differently? John and Ted are not disagreeing about what ‘football’ means this time, but could they be disagreeing about what ‘there are’ means? In other words, are philosophers talking past each other without realising it? This is an important question because if philosophical disputes are as deep as a discussion about the name of a common food, then it is appropriate to treat

philosophical discussions with the same attitude as one treats discussions about names for food: a small shrug.

In philosophical jargon, the small shrug is called ‘dismissivism’. It is important to distinguish between two different reasons not to take a disagreement seriously. One is that the disagreement is not interesting. This reason could apply to the chips and crisps case, which is a case of two people talking past each other, and not a deep disagreement about the nature of potatoes (this case is arguably not really a disagreement). Another example of this kind of reason not to have a certain debate is provided by Bennett [2009, p. 39]:

For example, I cannot get very excited about how many commas appear in the original manuscripts of Shakespeare’s plays, but it is not because I think the question is malformed, or that there is no answer, or anything like that.

There are genuine questions about how many commas Shakespeare uses, and their poetical interpretation, but Bennett is not gripped by this topic and this is why she would not want to have a debate about it.

A completely different reason not to have a debate challenges in general how people debate, or should debate, in the philosophical field. The idea is that there is something fishy about philosophical disagreement. Philosophers who think this are not simply saying that some philosophical debates are not interesting, but rather they make a normative claim that some debates should not be had. This is a philosophical position in its own right and not just the voice of someone who does not care.

In other words, there are many reasons why some philosophical disagreements may not be genuine, and it is one of the purposes of this work to explore some of these reasons. For instance Manley [2009, pp. 4-5] thinks that some disputes may not be substantial, for one of the following reasons:

- The dispute is ‘merely verbal’ - it is due to differences in the way the disputants are using certain terms.
- Neither side succeeds in making a claim with determinate truth-value.
- The right answer is much harder or easier to reach than the disputants realize, and as a result, the way in which they attempt to reach it is misguided.

Bennett [2009] is on the same wavelength as Manley and in particular she focuses on the third type of dismissivist strategy, which she calls epistemicism. She argues that in some metaphysical debates disputants are not able to find out who is right and who is wrong. On the other hand Chalmers [2011] mainly discusses verbal disputes, exploring how to define them and how to solve them.

My thesis focuses on the problem of dismissivism. Dismissivism is not only a marginal worry in philosophy. It lies at the very heart of the discipline. It is worth

discussing dismissivism, because issues to do with dismissivism bear on the future of philosophy. If philosophy has to have a future, we have to make sure that at least some disagreements within it are substantial. We do not want to waste time on debates generated by non-genuine disagreement.

I will restrict my attention to metaphysics and focus on debates about existence and grounding. Debates about existence ask what there is. For instance, some philosophers debate whether there are composite objects, temporal parts, or tropes, . . . , often these disagreements arise because one side thinks x exists while the other side thinks it does not. Debates about grounding ask the question of what grounds what. Lowe [2010] describes grounding as follows:

A crucial notion in metaphysics is that of one entity *depending for its existence upon* another entity - not in a merely causal sense, but in a deeper, ontological sense.

Philosophers disagree about what grounds what. For example, some philosophers think that tropes are fundamental, while others think that universals are fundamental. They also disagree about whether anything grounds anything at all. Some philosophers think that the notion of grounding is not needed.

In particular I am interested in finding out whether the options available for dismissing debates about what there is are different from the options available for dismissing debates about what grounds what. The reason why I think this question is interesting is that there is a gap in how much attention has been dedicated to exploring the possible reasons to dismiss debates about what there is, and the possible reasons to dismiss debates about what grounds what. This is partly because interest in the notion of grounding has flourished only recently. My thesis aims at reducing the gap and discussing whether some of the things philosophers say about dismissivism in existential debates apply to debates about what grounds what as well.

I will answer this question in two different steps. First of all I discuss the possibility of dismissing debates about what there is. I analyse the debate between three-dimensionalism and four-dimensionalism, as a case study. Secondly I delve into whether it is possible to dismiss debates about what grounds what. I take the debate between tropes ontologies and universals ontologies, as a case study.

My conclusions will be that metaphysical debates about what there is can be dismissed for a variety of reasons (semantic, epistemic, etc). I also argue there is no general formula to find out whether a specific debate should be dismissed. Nor is there a formula for finding out why it should be dismissed, if it should be dismissed. On the other hand my conclusion with respect to the possibility to dismiss debates about what grounds what is that they should all be dismissed. I will offer two separate sets of arguments in favour of my claim.

In this introduction I first of all discuss some important terminological distinctions, in order to avoid misunderstandings in what follows. Then I present the structure of the thesis and a short summary of each chapter.

I start with a clarification about the difference between ‘metaphysics’ and ‘ontology’. I am going to use these words a lot, so I need to clarify what I mean by them. Philosophers have expressed different opinions about what the difference amounts to. Varzi [2011, pp. 407-408] distinguishes various uses of the labels ‘metaphysics’ and ‘ontology’:

[...] ontology is concerned with the question of what entities exist [...] whereas metaphysics seeks to explain, of those entities, what they are (i.e., to specify the ‘ultimate nature’) [...] ontology is in some way prior to metaphysics. One must first of all figure out what things exist (or might exist); then one can attend to the further question of what they are.

Van Inwagen [2009, pp. 289-290] argues that:

Philosophers call the branch of metaphysics that addresses the ontological question ‘ontology’. [...] Ontology is the study that attempts to answer the question ‘What is there?’, and to answer it in the most general terms possible. [...] There are, in fact, metaphysical questions about what there is that are not the province of ontology: for example, the question whether there is design in nature, the question whether there is free will, and the question whether there is such a thing as objective truth.

According to Sider [2008, p. 1 and fn. p. 7] (original emphases):

Metaphysics asks what the world is like, as opposed to [...] what the world *ought* to be like [...], what we *know* about the world [...], how we *think of* and *talk about* the world [...]

Ontology, according to Sider, is a branch of metaphysics. Namely, the branch that focuses on questions about what exists (*ibid.* p. 4, original emphases):

Ontological questions include the question [...] of whether properties exist, the question of whether numbers exist, and even the ‘metaontological’ question of what it *means* to investigate whether objects of a certain sort ‘really’ exist.

This passage highlights that as we worry about the difference between metaphysics and ontology, we should worry about the difference between metametaphysics and metaontology as well. On this issue, Manley [2009, p. 1] presents a rather different view from Sider’s:

Metametaphysics is concerned with the foundations of metaphysics. It asks: Do the questions of metaphysics really have answers? If so, are these answers substantive or just a matter of how we use words?

Manley does not specify what he means by ‘ontology’ or by ‘metaphysics’, but he seems to be using the two words as synonyms throughout his paper. Moreover, it seems reasonable to infer, from what Manley says, that if metametaphysics is concerned with the foundations of metaphysics, then metaontology is concerned with the foundations of ontology. The difference between Manley and Sider is that Sider considers metaontological questions to be a subset of ontological questions, whereas Manley would probably argue that metaontological questions are different from ontological questions.

I do not think that any important philosophical issues hinge on this distinction. However, in case anyone thinks that they do, I would like to specify that I agree with Sider [2008] on his definition of ‘metaphysics’ and ‘ontology’ and I will stick to this use of the terms throughout my work. When I talk about metametaphysics I will use the term in Manley’s sense. I will use the words ‘metametaphysics’ and ‘metaontology’ as interchangeably, as does Manley.

In chapter one I discuss [Bennett, 2009] and describe her view of dismissivism. Bennett argues that there are three main reasons to be a dismissivist about some metaphysical debate. These reasons take the forms of antirealism, semanticism, and epistemicism. In particular I focus on the strategy Bennett uses to argue that the composition and colocation debates should be dismissed for epistemic reasons. If this strategy could be generalised and used in other metaphysical debates, this would be helpful to answer my research question, because it would act as a sort of ‘dismissability test’ that promptly verifies whether a dispute should be dismissed for epistemic reasons or not. I argue that such a strategy cannot be applied to all metaphysical debates, and I describe in detail the reasons why this is so. This chapter achieves two purposes. First of all it further clarifies the central topic of this work, i.e. dismissivism, thanks to a concrete example of how to dismiss two important metaphysical debates. Secondly it introduces some key notions that I will make use of in subsequent chapters.

In chapter two I narrow down the scope of my analysis and focus more on the first part of my research question, i.e. what are the possible options available for dismissing debates about what there is. In order to explore this topic I discuss a different debate from the ones Bennett uses as an example. This is the debate between three-dimensionalism and four-dimensionalism (I will normally refer to these two views as *3D* and *4D*, respectively). I start by asking these questions:

- is the disagreement genuine, i.e. is this debate really about what exists, as it seems to be?
- if the disagreement is not genuine, why not?

Instead of offering my own answers to these questions I analyse the work of a few philosophers who argue that the disagreement between *3D* and *4D* is not substantial ([McCall and Lowe, 2006, Miller, 2005a, Hofweber and Velleman, 2010]) and describe their attempts at explaining why this is the case. The discussion of

these works highlights two important points. First of all, McCall-Lowe, Miller, and Hofweber-Velleman dismiss the *3D-4D* debate for reasons that do not appear in Bennett's taxonomy, described in chapter one. Secondly, it will turn out that it is important to provide more details about what 'dismissivism' means. I discuss how I am going to use the word in the thesis. I also discuss the sense in which McCall-Lowe, Miller, and Hofweber-Velleman may be regarded as dismissivist. In the conclusion of this chapter I show why both issues are relevant to answering my research question.

In chapter three I analyse the debate between tropes ontologies and universals ontologies (I will normally refer to these two views as \mathcal{T} and \mathcal{U} , respectively). I here follow a different strategy from chapter two because the \mathcal{T} - \mathcal{U} debate has not received as many dismissivist attempts as the *3D-4D* debate. I use Bennett's methodology as a guideline and try to mirror the dismissivist strategy she uses in the cases of composition and colocation. I argue that such strategy will not enable us to find out whether the disagreement between \mathcal{T} - \mathcal{U} is genuine and whether this debate should be dismissed. I then try other methods to find out whether the disagreement between these two views is genuine, but I do not manage to reach a definitive answer. In the conclusion of this chapter I ask myself why I am not able to determine the type of disagreement \mathcal{T} - \mathcal{U} are having. Answering this question brings to light an interesting connection between dismissivism and the notion of grounding. It seems that I cannot find a reason to dismiss this debate because the notion of grounding plays an important role in it. However this is only a hypothetical claim at this stage and it requires more convincing support, provided in chapter four.

In the fourth and last chapter I delve into the notion of grounding, thus addressing the second part of the research question of what the options available for dismissing debates about what grounds what are. The notion of grounding is at the centre of recent metaphysical disputes, and philosophers debate about what it means, and what role it plays. I briefly survey the most popular views about the topic. Having done this, I focus on the relationship between dismissivism and grounding. The starting point of my analysis is the conclusion of chapter three, i.e. the suspicion that grounding may play a role in making some debates not dismissible. However there are various reasons to think this hypothesis is false. For instance the dismissivist moves of Miller and Hofweber-Velleman (see chapter two) and Schaffer [2009, p. 347]'s view of dismissivism (original emphases):

Metaphysics [...] does not bother asking whether properties, meanings, and numbers exist. Of course they do! The question is whether or not they are *fundamental*.

Along similar lines, Sider [2011, p. 1] says:

Metaphysics, at bottom, is about the fundamental structure of reality. Not about what's necessarily true. Not about what properties are essential. Not about conceptual analysis. Not

about what there is. Structure. Inquiry into necessity, essence, concepts, or ontology might help to illuminate reality's structure. But the ultimate goal is insight into this structure itself - insight into what the world is like, at the most fundamental level.

Schaffer's and Sider's view (shared by other philosophers) is that genuine metaphysical disputes are about what grounds what. On the contrary, disputes about what there is are shallow and uninteresting, because the answer to the question of what exists is obvious. Against this line of thought, I express doubts against the claim that the disagreement about what grounds what is genuine. First of all I argue that it is plausible that philosophers are having a merely verbal dispute when they use the word 'ground', and secondly I show that the notion of grounding is underspecified because it is not clear why it is different from causation. I conclude that if my analysis is correct, then debates about what grounds what should be dismissed.

In the final conclusion I will summarise my results and show how the research question has been answered. I will also discuss possible future directions of research in this area and how the debate about what grounds what may be continued.

CHAPTER 1

Bennett on Dismissivism

Introduction

In this chapter I introduce the topic of dismissivism in metaphysics. In particular I engage with the view of a recent important philosopher, Karen Bennett, who has addressed this issue in [Bennett, 2009]. A discussion of Bennett's work will prove useful when it comes to answering my research question, in several ways. First of all Bennett delves into the reasons why one may want to be a dismissivist. She describes three main reasons (antirealism, semanticism, and epistemicism). It will be useful to keep these in mind when I move on to the discussion of my own case studies in chapters two and three (and to some degree in four) because Bennett's three reasons will constitute a guideline or framework to help me diagnose what is going on in various metaphysical debates. Secondly, Bennett offers a strategy for finding out when a debate should be dismissed for epistemic reasons. I explore some general features of this strategy and investigate whether it can be applied beyond the case studies Bennett addresses. In chapter three I will try to apply Bennett's strategy to a case study and see how it fares.

By the end of this chapter I will have familiarised the reader with the main topic of this thesis, and also with some of the terms and philosophical positions I will be referring to in later chapters.

1. Three reasons to be a dismissivist

The purpose of this section is to present Bennett's view. Bennett [2009] focuses on questions such as: what is the type of disagreement philosophers are having? Is it substantive or not? What are the ways, if any, to solve metaphysical disagreement? She discusses the dismissivist attitude in metametaphysics. She uses 'dismissivism' as a label 'for the view that there is *something* deeply wrong' (p. 39) with (at least some) metaphysical questions. In particular, in her paper, she addresses three questions:

- What are the possible reasons to be a dismissivist?
- How do we assess whether it is appropriate to be a dismissivist in each specific case?
- What is the appropriate method of this inquiry?

Bennett thinks philosophers like Putnam, Sidelle, and Carnap endorse dismissivist attitudes towards some metaphysical questions in that they would answer them 'who cares?'. She calls them 'neo Carnapian naysayers' (p. 38). She uses this

expression to refer to all philosophers who would react to at least some metaphysical questions by saying ‘who cares?’.

Bennett lists three different reasons to be a dismissivist about metaphysical disputes. Bennett does not argue for the claim that these are the only three possible reasons to be a dismissivist. The first reason to be a dismissivist Bennett labels ‘antirealism’ and is defined as follows (p. 39):

There is no fact of the matter about whether or not there are *F*s. “There are *F*s” does not have a determinate truth-value.

The description of antirealism offered by Bennett can be interpreted in different ways. However, given that after antirealism Bennett explores semantic and epistemic reasons to dismiss philosophical debates, I think it is best to interpret antirealism as a type of metaphysical reason to dismiss philosophical debates. In this spirit, we should interpret it as saying that the claim that ‘There are *F*’s’ does not have a determinate truth-value, because the world is metaphysically indeterminate (at least in the relevant respects). To understand this more clearly, take for instance the dispute about whether there are *F*s from the point of view of someone who thinks that an *F* is a metaphysically vague object. According to van Inwagen, as paraphrased by Hawley [2002, p. 5]:¹

[...] there are borderline cases of lives: an example may be the activity of the simples in a region we would ordinarily describe as “occupied by a virus”. If it is indeterminate whether the activity of some things constitutes a life, then it is indeterminate whether those things compose an organism and thus, for van Inwagen, it is indeterminate whether they compose anything at all. Roughly speaking, it is a vague matter whether the virus exists, and a vague matter whether there are any viruses.

If it is vague whether there are viruses, then ‘There are viruses’ does not have a determinate truth-value. In this scenario, a philosopher who likes antirealism might think that there is no point discussing whether *F* exists. Rather, the dispute should be dismissed.

I think antirealism is not a good reason to be a dismissivist for two reasons. First of all, Bennett (and I agree with her on this point) is not convinced that antirealism is a good reason to be a dismissivist, because she is not ‘entirely sure what it means’ ([Bennett, 2009, p. 40]). As a result, she explicitly drops discussion of antirealism in her paper. Secondly, assuming that it is right to interpret antirealism in the metaphysical spirit just described, the view that the world is metaphysically indeterminate is problematic. Although some philosophers support that objects may be vague (e.g. have fuzzy boundaries), such as van Inwagen and Barnes, others strongly oppose this, such as Russell, Dummett, Evans, and Merricks. Metaphysical indeterminacy is a complex concept and whether objects are

¹Let us leave aside doubts about the consistency of van Inwagen’s or similar views, for the sake of the example.

vague is not something that can be settled straightforwardly or quickly. A discussion whether metaphysical indeterminacy is a tenable position would take me too far from the central topic of my work. Moreover, I think a discussion of other reasons to be a dismissivist will provide useful enough insights to answer my research question. For these reasons, I do not delve into antirealism any further.

The second reason to be a dismissivist is called ‘semanticism’ (p. 40):

The dispute about whether there are *F*s is purely verbal. The disputants assign different meanings to either the existential quantifier, the predicate *F*, or the negation operator, and are consequently just talking past each other.

Bennett highlights the distinction between antirealism and semanticism. As she points out, two disputants can agree that there is a fact of the matter about whether there are *F*s, yet disagree about what ‘There are *F*s’ means, because they use words in different ways. An example of semanticism, according to Bennett, is [Hirsch, 2002].

Bennett’s definition of semanticism raises a number of interesting questions about what a verbal dispute is. To clarify this further, consider the example I described at the beginning of this thesis, i.e. the dispute between an American English speaker and a British English speaker about chips and crisps. This scenario clearly fits Bennett’s definition of semanticism, because the disputants assign different meanings to the word ‘chips’. The crucial features of the dialogue between the American and British English are the following. First of all, the dispute about whether the potatoes in the plate are chips or crisps is not a substantial one, but a verbal one. In other words, the disputants use the same word ‘chips’ to refer to two different objects.

Furthermore, the American and the British person do not disagree. Disputants speak different languages and each utters truths in their own language. The American English speaker is right in claiming: ‘These are not chips’, and the British English speaker is right in claiming: ‘These are chips’. They are thus not disagreeing about potato-related facts. Moreover, they are not even disagreeing about which is the best or proper way to refer to potatoes. The American and British do not have different views about what long cuts of fried potatoes *should* be called. They are simply using two different dialects and thus ‘talk past each other’, as Bennett says. There is nothing more to say about why they are having a misunderstanding.

Things are not so simple when it comes to analysing philosophical disputes. In some cases it feels that a philosophical dispute is due to a verbal misunderstanding, and some have been tempted to think that philosophers sometimes use the same words with different meanings and so only seem to disagree. This suggestion has been explored in recent literature and it has run into several difficulties. Other

better ways to understand philosophical verbal disputes have been devised and, in what follows, I briefly survey and discuss a few possible options.

To start with I would like to introduce an important distinction, that between semantic meaning and speaker meaning, which is crucial to clarify in which sense philosophical disputes may be verbal. Semantic meaning is the meaning of the words uttered. Speaker meaning is the meaning that a speaker intends a word to have (see [Speaks, 2011]). For instance, in the chips case, the word ‘chips’ in American English has the semantic meaning of: flat and round slices of fried potato. This coincides with the speaker meaning of the word, as uttered by the American. On the other hand, the word ‘chips’ in British English has the semantic meaning of: long cuts of fried potato. This is the same as the intended meaning of the word by the British.

The analysis of recent philosophical literature on this topic (e.g. [Manley, 2009], [Chalmers, 2011], and others) highlights three main ways to describe what is happening in verbal disputes. I am going to discuss the merits and shortcomings of each of the following approaches in turn.

- (i) Talking past each other. Disputants utter words which have different semantic meanings and different speaker meanings.
- (ii) Both disputants are right in their own idiolect. Disputants utter words which have same semantic meaning in the public language.
- (iii) Verbal dispute. Disputants utter words which have the same semantic meaning, but different speaker meanings.

(i) correctly describes the chips case. The word ‘chips’ has a different semantic meaning in American and British English. Moreover, the American speaker intends the word ‘chips’ to mean something different from what the British speaker intends it to mean. Nonetheless, (i) does not seem a good way to explain how philosophers have verbal disputes, because philosophers have their philosophical disputes within the same language. The problematic feature of (i) is that the semantic meaning of the words uttered in the dispute is different. This means that disputants are not disagreeing, because they are talking past each other, or in other words they are speaking different languages. This is what makes (i) an unsatisfying diagnosis of what happens in philosophical debates. It is more interesting to find a way to understand philosophical disputes in such a way that disputants do disagree.

(ii) is an improvement over (i) because it addresses the issue just highlighted. Chalmers [2011, p. 521] discusses and challenges (ii). He in particular focuses on a way of defining verbal disputes which he attributes to Hirsch [2009, pp. 238-240].² Hirsch suggests the following criterion to find out whether a dispute is verbal or not.

²I am not delving here into whether this correctly represents Hirsch’s view. I will refer to it as if it did.

Two parties *A* and *B* are having a verbal dispute iff, were *A* and *B* to inhabit an *A*-community and a *B*-community (respectively) in which everyone exhibits the same sort of linguistic behavior that *A* and *B* actually exhibit (respectively), then on the correct view of linguistic interpretation, *A* and *B* would agree that both speak the truth in their own language.

Chalmers argues that Hirsch's condition is inaccurate, because it does not classify as verbal disputes that we would rather classify as such. Chalmers offers a counterexample to substantiate his claim. Consider the following dispute between *S* and *P*:³

S claims: telephones exist;

P claims: telephones do not exist.

Additionally, *P* thinks 'telephone' in English means 'fairy'. The dispute just described about the existence of telephones seems to be clearly verbal. If this is right, then Hirsch's criterion should classify it as verbal. According to Hirsch, basically *S* and *P* are having a verbal dispute iff they would agree that both speak the truth in their own language. Hirsch is saying that there is a public language which both *S* and *P* speak. In that language the word 'telephone' has a fixed semantic meaning, and so it is not possible that both *S* and *P* are both right. However, one can consider that *S* and *P* each speak their own idiolect, i.e. they exhibit a linguistic behaviour that is unique to them (or to a community of speakers to which they belong). If this is so, both *S* and *P* are speaking the truth in their own idiolects.

Chalmers disagrees that the dispute between *S* and *P* fits Hirsch's criterion in the way just described, because *P* is simply and obviously wrong about the meaning of the word 'telephone'. In other words, one party 'has false beliefs about the meaning of a term' ([Chalmers, 2011, p. 520]). Thus *S* and *P* would not agree that each speaks the truth in his own idiolect; rather, *S* would claim that *P* is wrong. If this is right, then the dispute between *S* and *P* does not fit Hirsch's criterion, and so it is not a verbal dispute. For this reason, Chalmers thinks that Hirsch's criterion is ultimately unsatisfactory in characterizing what verbal disputes amount to.

Manley [2009, p. 30] presents another issue for Hirsch's criterion. He makes use of an example, taken from the debate about persistence:

[Even] a highly conciliatory perdurantist who grants that the endurantist speaks another idiolect [...and] understands what [...] the endurantist's [claims mean] will consider them to be false.

What Manley is saying is that, even if one disputant in a debate is able to understand and express what the opponent is saying, this does not mean that he

³The example is mine, not Chalmers', although it is designed along similar lines to Chalmers' original criticism (see pp. 520-521).

would grant that his opponent is speaking the truth. This shows why Hirsch's is ultimately an unsatisfactory way of characterizing what happens in certain philosophical disputes. Philosophers want to disagree, not to acknowledge that in some sense their opponent is right. This motivates us to look for a better strategy.

Option (iii) addresses precisely this issue and is crucially different from (i) and (ii) in that it is the only one to grant that disputants are disagreeing. For instance, consider this scenario:

A claims: $\exists x$.

B claims: $\neg\exists x$.

After analysis it turns out that disputants are using their quantifiers in different ways, so *A*'s real claim is $\exists_r x$, and *B*'s real claim is $\neg\exists_u x$. The '*r*' subscript stands for 'restricted', while the '*u*' subscript stands for 'unrestricted'. The diagnosis given in (iii) of what is happening is that *A*'s and *B*'s quantifiers have the same semantic meaning, because *A* and *B* are speaking the same language. However the two quantifiers have different speaker meanings, because *A* and *B* intend their own quantifier to have a slightly different meaning from their opponent's (see [Manley, 2009, p. 14]). (iii) correctly classifies this dispute as verbal, and it also guarantees that this dispute has the following desirable features: disputants disagree, they are not talking past each other, they do not have to acknowledge that their opponent speaks the truth in their own idiolect.

Another way of formulating (iii) is Chalmers [2011, p. 522]' own definition of a verbal dispute:

A dispute over *S* is (broadly) verbal when for some expression *T* in *S*, the parties disagree about the meaning of *T*, and the dispute over *S* arises wholly in virtue of this disagreement regarding *T*.

It is important to avoid confusion between this passage and Manley's (iii), and Bennett's semanticism. Chalmers and Manley are on the same wavelength when it comes to defining verbal disputes, while Bennett's definition of semanticism describes disputes where disputants talk past each other, i.e. disputes that fit (i). Nonetheless, Bennett is aware that her definition of semanticism sheds light only partly on the issue of verbal disputes. Bennett [2009, p. 41] says:

There can be verbal disputes even in cases in which there are facts of the matter both about what the world is like, and about the correct use of the expressions in the disputed sentences.

Here Bennett is highlighting a point similar to one raised in conjunction with Chalmers' criticism of Hirsch. There may be verbal disputes even when all speakers are competent and nobody has a false belief about a word's meaning. The reason why Bennett does not dwell on this and the other distinctions discussed above is that it is not relevant to her paper.

To sum up, as I said in the introduction to this thesis, my research question stems from reflection on the problem of disagreement. There I pointed out that dismissivism is one possible way to react to a non-genuine disagreement. This means that the basis of dismissivism is that there is some disagreement between disputants. Thus from now on in this thesis when I use the expression ‘verbal dispute’, I refer to disputes which have the following features:

- disputants speak the same language;
- disputants aim to talk about the same thing;
- the words used in the dispute have the same semantic meaning, but different speaker meanings in the mouths of disputants;
- disputants disagree about something.

Note that this technical sense of ‘verbal dispute’ is very different from Bennett’s semanticism. It is important to keep this distinction in mind, because in the rest of this thesis I am going to talk about them both. In particular, in chapters two and three, where I analyse my own case studies, I will explore whether they can be dismissed for Bennett’s reason, i.e. they talk past each other, or whether they are verbal disputes. It is important to bear in mind that from now on the expression ‘verbal dispute’ will be used in the technical sense just described, and with no other meaning apart from this one. Otherwise, if I want to refer to Bennett’s notion, I will use the expressions ‘semanticism’, or ‘talking past each other’.

The third reason to be a dismissivist Bennett lists is epistemicism, which has a strong and a weak formulation. Bennett defends the weak one, whose definition is as follows ([Bennett, 2009, p. 42]):

Disputes about the truth value of ‘There are *F*s’ are not verbal disputes. But there is little justification for believing either that it is true or that it is false.

Bennett highlights that this view is compatible with as strong a form of realism as one wants. Note that the definition just given does not mention whether disputants think there is a fact of the matter about ‘There are *F*s’. This means that the view can be developed in a realist spirit as well as in an antirealist one. Epistemicism interestingly highlights the relationship between verbal disputes and dismissivism. It is easy to slide from the idea that if a dispute is verbal, then it should be dismissed, to the idea that if a dispute is non-verbal, then it should not be dismissed. Bennett emphasises that it is possible to have reasons to dismiss non-verbal disputes.

Bennett argues that two recent popular metaphysical debates should be dismissed for epistemic reasons. The first one is the composition debate, which tries to answer the question: ‘When do simples compose a larger thing?’. Believers answer: always. Nihilists answer: never. The second debate is about collocation: ‘Can different objects spatio-temporally coincide?’ Multi-thingers answer: yes. One-thingers

answer: no. Bennett argues that these two debates are not verbal. This means that in these debates disputants are not having a verbal misunderstanding, nor are they discussing what is the correct way to use words in English. Rather, these are substantive questions about existence, however we cannot *know* which is the best answer.

Bennett shows this by means of an argument that starts from conditions a debate needs to meet, in order for it to be dismissed for epistemic reasons. I am going to summarize the argument now. It is appropriate to dismiss a debate for epistemic reasons when the following conditions are met (note that these are sufficient but not necessary conditions):

- (1) One of the disputants postulates more entities than the other;⁴
- (2) ‘Both sides try to minimize their differences from their opponents’ (p. 62):
 - (2a) The disputant who postulates more entities ‘insists that her extra ontology is nothing over and above what the [other disputant] accepts’ (*ibid.*);
 - (2b) The disputant who postulates less entities ‘tries to recapture most of the claims that the [other disputant] accepts’ (*ibid.*);
- (3) ‘It is not obvious that the low-ontologist’s view is simpler than the high-ontologist’s view’ (p. 63);
- (4) ‘The problems for the high-ontologist rearise for the low-ontologist’ (*ibid.*).

If all this is the case, then the debate should be dismissed for epistemic reasons.

I am going to show how the debate about composition meets the above requirements, according to Bennett. This is useful because I am going to mirror the same strategy in chapter three, when I discuss the debate between tropes and universals ontologies. According to Bennett in the debate about composition, the believer plays the role of the high-ontology side, because she postulates more types of entities than the nihilist. According to the believer (the high-ontology side) composite objects and simples exist, while according to the nihilist (the low-ontology side) only simples exist. Condition (1) is thus met. The words ‘believer’ and ‘nihilist’ are used in the technical sense just explained throughout this chapter.

Bennett also shows that believers try to minimize their differences from the nihilists by arguing that composite objects are nothing over and above simples. The believer says: ‘Necessarily, if there are simples arranged *F*-wise in region *R*, then there is an *F* in *R*.’ (p. 48). The believer tries to show the nihilist that composite objects supervene on the simples. The believer is trying to convince the nihilist that composite objects are not an extra addition to one’s ontology, but rather automatically come once the existence of simples is acknowledged. Thus once one accepts simples, composite objects are an ontological ‘free lunch’.

⁴From now on I will follow Bennett in referring to the disputant who postulates more entities as the ‘high-ontologist’, and to the disputant who postulates less entities as the ‘low-ontologist’.

From the opposite side, the nihilist tries to minimize the difference between the claims he makes and the claims the believer makes. Since for the nihilist there are no composite objects, claims such as ‘There is a table’ are either inaccurate or false (different versions of nihilism endorse one or the other). The nihilist then tries to recapture the believer’s claim, with paraphrases such as: ‘There are simples arranged table-wise’. These examples show how the composition debate meets conditions (2a) and (2b).

From these first remarks, Bennett argues that it is not possible to establish whether the nihilist’s view is simpler than the believer’s or vice-versa (condition (3)). This happens because on one hand the believer combines a less parsimonious ontology with easily understandable claims (such as ‘There are tables’), while on the other hand the nihilist combines a more parsimonious ontology with not-so-easily understandable claims (such as ‘There are particles arranged table-wise’). Bennett explains this as follows (p. 64):

The high-ontologist multiplies objects while the low-ontologist multiplies properties. [The nihilist] buys her way out of ontology with the coin of ideology.⁵ So even if the low-ontologist wins the battle of ontological commitment, he does not win the war of simplicity. On at least one way of reckoning simplicity, the two come out roughly on a par.

Lastly, Bennett describes in details four challenges that arise both for the believer and the nihilist. This shows, according to Bennett, that both views have the same amount of negative features, since they run into the same issues. A detailed analysis of these four challenges is not relevant to the pursuit of my research question, thus I am not going to discuss them here.⁶

According to Bennett, since the composition debate meets the four requirements listed above, it should be dismissed for epistemic reasons. The question whether simples compose larger things is a genuine one, and the debate over the correct answer is not due to a misunderstanding about what ‘simples’, ‘things’ or ‘exist’ mean. However the two views seem to display the same positive and negative features, while neither is more complex than the other. Thus we have no good reasons to prefer one over the other. In turn this is, according to Bennett, a good reason to dismiss the debate about composition, i.e. stop trying to find out which view is right.

Taking into account what Bennett says, I think it is helpful to clarify how I am going to use the word ‘dismissivism’ in this work. Being a dismissivist about a philosophical dispute means providing reasons why the dispute is not worth having anymore. This has to be carefully distinguished from providing reasons why one disputant is right while the other one is wrong. Consider as an example the dispute

⁵The ideology of a theory is ‘a theory’s choice of primitive notions’ ([Sider, 2011, p. i]).

⁶The reader can see the details in [Bennett, 2009, pp. 66-71].

whether x is F . A holds that x is F , while B holds that it is not. Dismissing the dispute whether x is F means providing a reason why there is no point talking about this. For instance, it may be the case that it is metaphysically indeterminate whether x is F and as a consequence the sentence ' x is F ' does not have a determinate truth-value. Alternatively it could be the case that disputants assign the same semantic meanings to x and/or F and/or 'exists', but different speaker meanings, thus making the dispute verbal in the sense specified above. Lastly, it could be the case that disputants can never, in principle, find out whether x is F . These are all good reasons not to talk about whether x is F anymore.

On the other hand, if one was to show that A is right in claiming that x is F , this would not amount to dismissing the debate, but rather to solving it. Moreover, that one disputant is right, while the other one is wrong, does not necessarily make a dispute about it pointless. The process by which A convinces B that B is wrong may be very interesting and shed light on the topic in question.

Lastly, I would like to highlight that dismissing a debate might not be the end of one's analysis of a dispute. Spotting the reason why a debate should be dismissed may provide useful insights into the debate itself. This means that one might be able to improve the debate, by paying attention to the issues that the dismissivist has highlighted. For instance, in the case of a verbal dispute, finding out that speakers mean different things by a certain word is a reason to dismiss a dispute that revolves around that word. However, it may also be the case that the meaning of that word can be clarified. Disputants can be more explicit and precise about what they mean, and the dispute can thus be reformulated in a refined fashion. As a consequence, a new dispute may arise, based on a genuine disagreement rather than on a verbal one. I will address how to take debates forward, after a diagnosis of dismissivism, in the conclusion of this thesis.

2. Moving forward

So far I have discussed Bennett's work in general, describing her taxonomy of reasons to be a dismissivist. It is important to keep this taxonomy in mind in the remaining part of this work, because I will use it as a guideline to diagnose what is going on in other metaphysical debates. I have also described her argumentative strategy for showing that some debate should be dismissed for epistemic reasons. Now I turn to analyse and criticize her argument in favour of epistemicism. This bears great relevance for my work, because I would like to try to apply such an argument to other debates. If Bennett's argument is sound, it can be used as a general 'dismissability test' for all metaphysical debates. If some metaphysical debate meets conditions (1) to (4) above, then it should be dismissed for epistemic reasons. This would clearly be of help in answering my initial question. The purpose of this section is to discuss this argument in detail, to check whether it is sound and applicable in general.

Before I start it is important to highlight an aspect of Bennett's thought about this. Bennett states the argument in general terms. However she never explicitly says that this argument is meant to provide a general strategy that we can use to diagnose other metaphysical debates, apart from composition and colocation. Her conclusion is that the composition and colocation debates should be dismissed for epistemic reasons, and not that all debates that fit the described argument strategy should be dismissed for epistemic reasons. However, since she states the argument in general terms, it is reasonable to think that Bennett hopes that her strategy could be used in other debates. Even if this is not Bennett's intention though, I still think it is a possibility worth exploring, in the context of my project. Given these remarks it should be clear that when I argue that Bennett's strategy cannot be generalised, I do not mean this as a criticism of her view, because she might not have meant it to be generalisable.

Let us start by briefly summarising Bennett's argument: if in a debate there are high and low-ontology sides, if a debate is difference-minimizing, then no view is simpler than the other, and both face similar issues, then we should dismiss the debate for epistemic reasons. I will refer to the various parts of this argument with the numbering introduced on p. 8. The argument holds in one direction and is not a bi-conditional, thus it could be the case that a debate should be dismissed for epistemic reasons even though it is not difference-minimizing. I am going to challenge the conditions Bennett places on debates being dismissable on epistemic grounds, i.e. conditions (1) and (2), but it is important to note that this does not block the argument from (3) and (4) to the conclusion. The strategy I will use to challenge conditions (1) and (2) is motivated by two reasons. First of all, my purpose is to ask whether we can generalize this argument to all metaphysical debates (apart from composition and colocation), thus I am going to explore whether we can expect conditions (1) and (2) to be met in general by metaphysical debates. In particular, in the case of (2) I would like to find out whether disputants *should* difference-minimize, or rather whether difference-minimizing is a mistake.⁷

The second reason why I want to challenge condition (2) comes from a suggestion Bennett makes in her paper (p. 72, original emphases):

One way to resist the lessons I am drawing is to say that it is a mistake to difference-minimize. In particular, one way for the low-ontologist to resist is to embrace his view with a braver heart, and *stop trying to say everything the other side says!*

This suggestion amounts to rejecting condition (2b) listed above (see p. 8). I am going to delve into Bennett's suggestion, exploring the reasons why we could consider this type of difference-minimizing a mistake.

⁷I am aware that Bennett herself does not ask this question, and I am not criticizing her on the ground that she does not. I just want to expand Bennett's project in the direction I highlighted in the introduction, and this is the reason why I ask this question now.

In what follows I will firstly express some worries about condition (1), then show that there is no good reason for a philosophical view to recapture its opponent's claims (challenge to condition (2b)). Finally, I will show that only in a very small number of debates is it possible for the high-ontology side to downplay excess ontology (challenge to condition (2a)). My remarks will lead me to be sceptical about the possibility of applying Bennett's argumentative strategy to other metaphysical debates.

2.1. A problem with high and low ontology sides. The first condition a debate needs to meet is that one side of the debate postulates the existence of more entities than the other does. Bennett thinks that this condition is met by both the composition and colocation debates, because in both cases one side (believers/multi-thingsers) postulates more *types of entities* than the other (nihilists/one-thingsers). I would like to raise the question of how we count entities. In order to answer this question I need to decide first of all *what* it is that we count. Various options open up here, which I describe, drawing on an important distinction made by Schaffer [2008].⁸ Firstly, I could count the entities each theory says exist, or secondly I could count the entities each theory says are fundamental. Or thirdly I could, as Bennett does, count the types of entities whose existence is acknowledged by each theory.

Bennett does not state the rationale behind her choice. This is a problem, because had we chosen to count the number of entities, rather than the number of types of entities, both the composition and colocation debates would fail to meet condition (1). This happens because if we count the number of entities, both parties in each debate turn out to be committed to an infinite number of entities, thus there are no high/low-ontology sides. From this it emerges that Bennett is somehow begging the question. She says that a debate should be dismissed for epistemic reasons if it meets conditions (1) to (4), and then chooses a counting method that makes the debate meet condition (1), without giving any reasons for choosing that method. It seems wrong to adopt a counting method or another just to make a debate fit the argument strategy. Rather, a counting method should be adopted for independent theoretical reasons and upon reflection on quantitative and qualitative parsimony.

If this is right, then it seems that before being able to apply Bennett's argument strategy, we need to figure out the best method for counting entities, which in turn requires us to delve into a methodological enquiry about the concept of parsimony. Unfortunately, the status of the debate about parsimony in the literature is not encouraging, because philosophers do not seem to have reached any agreement about a definition of parsimony (see for example [Nolan, 1997], especially section 3). We thus find ourselves stuck on the following two horns of a dilemma:

⁸Schaffer does not address directly the issue of how to count entities, however he highlights that 'the quantifier commitments are what a theory says exists, while the truthmaker commitments are what a theory says is fundamental' (p. 18). For further discussion on this see [Hawley, Forthcoming].

- either address questions about what parsimony is, and suspend questions about dismissivism until those are answered;
- or use a strategy to find out whether a debate should be dismissed for epistemic reasons that does not need to answer questions about parsimony first.

If we face this dilemma, the probability that we can apply Bennett's argument strategy to other debates is lowered.

2.2. A problem with up-playing expressive powers. I now turn to discuss the attempt that the low-ontology side makes to minimize the difference between their claims and the high-ontology side's claims. First of all, Bennett discusses different possible strategies the nihilist has to preserve ordinary judgements about what exists, and what does not exist (pp. 57-58). Then Bennett says (pp. 58-59):

All nihilists want somehow to recapture the claims that the believer takes to be true.⁹ [...] As long as they do not simply proclaim statements about composites false, and stop there, revolutionary nihilists are still up-playing their expressive power. They are still difference-minimizers.

This implies:

- Recapturing believers' claims is a way for the nihilist to minimize the differences between nihilists and believers.
- Up-playing expressive power has the purpose of difference-minimizing.

Bennett is not explicit about the reason why nihilists try to recapture believers' claims.¹⁰ In general, Bennett says (p. 72):

All the participants [i.e. believers and nihilists] want somehow to preserve our ordinary judgements of persistence, of sameness and difference, of what there is and isn't.

Intuitively, the reason why the nihilist wants to preserve ordinary judgements is that he does not want to say: 'there are no toasters; revise your breakfast plans' (p. 58). The more interesting question is why nihilists try to recapture believers' claims. This question is important because if it turns out that nihilists have no reason to recapture believers' claims, this should make us suspect that there are issues with difference-minimizing. I do not think it is easy to find out why nihilists have reason to recapture believers' claims. It is apparent from pp. 57-58 that Bennett takes the task of preserving ordinary intuitions and claims and the task of recapturing believers' claims to be related. However, all examples Bennett offers to show that the nihilist tries to recapture the believer's claims could just as well be examples of how the nihilist tries to recapture ordinary claims. As I said above, Bennett does

⁹Bennett argues that also one-thingers try to recapture multi-thingers' claims.

¹⁰There are different types of believers. Some believe in ordinary objects only, others also believe in unrestricted composition. What I am going to say targets all types of believers.

not say anything about the reason to difference-minimize and the relation between recapturing one's opponents' claims and ordinary judgements. This is a problem because she does not adequately justify a claim which is far from obvious, i.e. the claim that nihilists recapture believers' claims.

Nonetheless, I would like to set aside this difficulty and keep exploring Bennett's strategy. I may be wrong in faulting Bennett for not providing a reason why nihilists try to recapture believers' claims, but even then I have arguments to show that difference-minimizing runs into other issues. Since I lack any explicit claim by Bennett, about why nihilists try to recapture believers' claims, I now try to interpret her words. There are two ways to formulate Bennett's thought. The first version is most supported by textual evidence and is:

- (5-) Nihilists try to recapture believers' claims by up-playing their expressive powers.

This claim refrains from stating the reason why this is the case. A second possible version tries to interpret Bennett's words, and thus runs the risk of not reflecting properly Bennett's thought:

- (5) Nihilists try to recapture believers' claims by up-playing their expressive powers, because they want to preserve ordinary judgements.

I cannot show that Bennett definitely endorses (5), but this is not a big issue, because what I am about to say should undermine both (5-) and (5).

I am going to argue against claim (5), but what I say should also show that there are issues with (5-). First of all let us clarify what claim (5) says. There are two ways of interpreting it:

- (6) Nihilists try to recapture some of believers' claims by up-playing their expressive powers, because they want to preserve ordinary judgements.
 (6*) Nihilists try to recapture all believers' claims by up-playing their expressive powers, because they want to preserve ordinary judgements.

Bennett [2009, p. 62] explicitly endorses (6) and not (6*). I will discuss two sets of reasons for rejecting (6).

- (α) Bennett misinterprets the debate. It is not the case that nihilists try to recapture believers' claims, because the purpose 'trying to preserve ordinary judgements' cannot be achieved by means of recapturing believers' claims.
 (β) In general no philosophers should try to recapture his opponent's claims.

If (α) and (β) are correct, then it will have been shown that difference-minimizing in this way is a mistake. Note that my second argument is more general than the first one. If one disagrees with (α) and agrees with Bennett that nihilists are in fact difference-minimizing, this is not enough to show that my second argument (β) is wrong. Furthermore, if one thinks that (5) misrepresents Bennett's thought, and

(5-) is correct, (β) shows that even if the nihilist is in fact recapturing believers' claims, he is nonetheless making a mistake and should stop doing so.

I now provide support for (α) by analysing what is going on in the composition debate. I would like to argue, against (5) and (6), that the nihilist up-plays his expressive powers in order to recapture ordinary judgements, and not believers' claims. Consider Bennett's following example from the composition debate.

(B) Believer's claim: 'There are tables and they are composite objects'.

(N) Nihilist's claim: 'There are particles arranged tablewise'.

Bennett holds that (N) is a way of recapturing (B). However it seems that both (B) and (N) are also ways of recapturing:

(O) Ordinary claim: 'There are tables'.

I would like to argue that (N)'s first aim is that of recapturing (O), rather than (B). Consider the following example:

(B1) Believer's claim: 'The right ontology should countenance composite objects and simples'.

(N1) Nihilist's claim: 'The right ontology should countenance only simples'.

The difference between these two claims will help me clarify why I disagree with claim (6). Bennett argues that (N) is a way to recapture (B), but also that the nihilist does not try to recapture (B1). Bennett and I agree on the second example, i.e. that the nihilist has no interest in recapturing (B1) and does not try to do so.

Note that this is a counterexample to (6*), because it presents a case in which the nihilist is not trying to recapture a claim made by believers. However, this may raise a difficulty to my argumentative strategy, because, as already highlighted, Bennett never claims that the nihilist tries to recapture *all* of the believer's claims (see p. 62). Bennett can thus point out that since (N1) is not a way to recapture (B1), this bears no relevance to the validity of (6), because (B1) is one of believer's claims that the nihilist does not try to recapture. Nonetheless, I want to argue not only against the claim that sometimes nihilists recapture believers' claims, but also against the stronger claim that nihilists ever try to recapture any of opponents' claims.

I am going to argue for the stronger claim by showing that recapturing believers' claims does not do any good to the nihilist's view. My argument is based on thinking about what the nihilist wants to achieve. Bennett says the nihilist wants to preserve ordinary judgements, thus showing his opponents and ordinary people that his view can answer the composition question and does not lose his battle with the believer on the ground of expressive power. It is not clear at all how exactly recapturing believers' claims helps the nihilist preserve ordinary judgements, and Bennett does not say anything to enlighten us on the matter. The tricky point, which is at the root of the disagreements between Bennett and myself I suspect, is that in the case of claims about ordinary objects, the believers' claims are very close

to ordinary claims. (B) is similar to (O) more than (N) is similar to (O), because the believer's language is closer to commonsense in this respect than the nihilist's is. This may give the impression that the nihilist is in fact trying to recapture the believers' claims. However, if we think about (B1) and (N1), it becomes apparent that the nihilist has no reason to recapture (B1). This is because recapturing (B1) does not help the nihilist preserve ordinary judgements, or boost his position's expressive power, or answer the composition question. If this is true in the case of (N1) and (B1), then I can use similar reasoning in the case of (B) and (N). Recapturing (B) does not help the nihilist preserve ordinary judgements or show how the nihilist can answer the composition question. Thinking about (N1) and (B1) helps us to understand what is happening in the debate, whereas thinking only about (B), which is so similar to the ordinary judgement's claim, can be misleading.

So far I have argued that Bennett's diagnosis of what is happening in the composition debate is wrong. However I can make a further step ahead and make a more general claim. I want to argue that in general it is a mistake for a philosophical view to recapture his opponents' claims (β). Thus even if some are not convinced by my argument (α) and still think that nihilists are difference-minimizing, I am going to give them further reasons to be worried about this aspect of difference-minimizing. Let us think about some of the purposes philosophical views usually have (in no particular order):

- explain what it is supposed to explain;
- have its position understood;
- preserve ordinary judgements;¹¹
- show its opponents are wrong or at least worse off;
- ...

Re-expressing or re-stating opponent's claims is useful in order to show why the opponent's position is wrong. However it does not serve any of the other purposes just listed. Moreover, even when one recaptures his opponent's claims in order to prove them wrong, this is most definitely not a case of difference-minimizing. The reason why one recaptures his opponent's claims here is rather to *maximize* the differences between himself and the other, to show why he is right and the other is wrong. A very clear example of what I am saying comes from a metaphysical debate I am going to analyse later on, i.e. the debate between tropes and universals ontologies. Take the universalist's claim that a table is red because it instantiates the repeatable property of 'redness'. On the other hand the tropist claims that a table is red because it has a particular redness trope. Both claims are ways of recapturing the ordinary claim 'The table is red'. The tropist's claim (granting just for the sake of the argument that he plays the role of the low-ontology side

¹¹A further question can be raised, i.e. 'should any philosophical position reconstruct ordinary judgements?'. This is an interesting question, however it is not relevant to my enquiry at present. I am here only focusing on arguing against Bennett and thus taking for granted that at least some philosophical views try to preserve ordinary judgements.

- see chapter three for a detailed discussion about this) patently does not try to recapture the universalist's claim, rather it explains the ordinary claim in tropes' terms.

For these reasons I do not think it is the case that nihilists up-play their expressive powers in order to recapture believers' claims. (α) shows that nihilists up-play their expressive powers in order to recapture ordinary judgements, and (β) shows that they, in general, should not try to recapture believers' claims.

At this stage those who agree with me that Bennett's claim that nihilists try to recapture believers' claims is problematic, may make a suggestion to try to rescue Bennett. They may suggest that (2b) be modified to the more plausible (2b*): 'The disputant who postulates less entities tries to recapture most of the claims that ordinary speakers make'. Even though (2b*) does not run in the issues I just highlighted, this suggestion fails to rescue Bennett's strategy overall. As I have shown in section 2.1 and as I will show in the next section, there are other reasons to think that Bennett's strategy is problematic, when it is applied to other debates. For this reason, I do not think that substituting (2b) with (2b*) can change the conclusion I want to draw about Bennett's strategy.

2.3. A problem with downplaying excess ontology. The third challenge to Bennett's argument strategy concerns condition (2a) of difference-minimizing. In this case, it is the high-ontology side which tries to minimize the differences between his less parsimonious ontology and the low-ontology side's more parsimonious one. I intend to raise a doubt, very different from the one raised in the previous section. This time I am not going to argue against Bennett, rather I am going to agree with her diagnosis of the composition debate. I only focus on this aspect of difference-minimizing with respect to the possibility of generalizing Bennett's argument.

I have already described in the previous section how the believer tries to minimize the differences between his ontology and the nihilist's ontology, i.e. by appealing to the idea of supervenience. The entities of the believer's ontology are nothing over and above the entities of the nihilist's ontology, because the former ones supervene on the latter ones. I now want to highlight that the reason why the believer can argue in this way is because the debate between believers and nihilists satisfies the following condition:

$$\text{believer's ontology} = \text{nihilist's ontology} + \text{composite objects.}$$

The nihilist shares some ontological commitment with the believer, i.e. the commitment to the existence of simples. The believer's ontology is exactly the same as the

nihilist's with the addition of composite objects.¹² This is the reason why the believer's difference-minimization strategy works. If the believer shared no ontological commitments with the nihilist, his strategy would not work.

I think Bennett is correct in holding that the believer tries to minimize his differences from the nihilist. My worry concerns the possibility of re-using Bennett's strategy in other metaphysical debates. I think that very few debates meet the condition that one disputant's ontology is exactly the same as the other disputant's plus some other commitment. Think for instance of the debate about the nature of modality, the existence of temporal parts, the existence of tropes or universals, . . . , in all these cases disputants do not share any ontological commitments, or do not share them in a way that satisfies the above equation, and so they fail to meet condition (2a).

Conclusion

With all these remarks I have provided some reason to reject the first and second conditions of Bennett's argument. I have said nothing against steps (3) and (4) of the argument in this chapter (although I will in chapter three, in sections 4.4 and 4.3 respectively). The discussion of my worries about conditions (1) and (2) of Bennett's argument diminishes the hope that we can use it as a handy 'dismissability test' machine for all metaphysical debates, either because some conditions are dubious, or because very few debates meet the requirements. What I have shown is that it is really difficult to generalize from the features of one debate to other debates. It thus seems that most of the work to find out whether a debate can be dismissed has to be done 'manually', and on a case-by-case basis, without much help from Bennett's scheme. This is the task I turn to now.

¹²Some believers think that there is gunk. Such believers agree with what the nihilists claim exists, but they disagree about the nature of such things. The nihilist argues that only simples exist, while a believer in gunk thinks that even if chairs are made of parts, then also those parts are made of parts, and so on *ad infinitum*. Since Bennett does not delve into proponents of gunk, and it will not be relevant for my work to consider the details of such option, I will not address this further.

A case study: Three-dimensionalism and Four-dimensionalism

Introduction

In the previous chapter I described the core aspects of the problem of dismissivism in general. Now I start addressing more in detail my research question. i.e. ‘what is the difference between the possible options available for dismissing debates about what there is and the possible options available for dismissing debates about what grounds what?’. The best strategy to delve into this is first of all to talk about debates about what there is. As a sample of a debate about what there is I choose the dispute between three-dimensionalism and four-dimensionalism (from now on *3D* and *4D*, respectively). There are many reasons why I pick this debate. First of all, it is a popular one, and many philosophers are at least a little bit familiar with it. It would not be helpful if I chose a small dispute very few people have heard about. This debate has been at the centre of philosophical debates in recent years because it addresses pressing questions such as how things can retain their identity through time. Secondly, Bennett mentions the *3D-4D* debate as an example of a dispute which has brought philosophers to endorse dismissivist stances ([Bennett, 2009, p. 38]):

Issues that have inspired particular ire include the dispute between perdurantists and endurantists,¹ the dispute between presentists and eternalists, questions about the persistence conditions of particular kinds of objects . . .

Last, but not least, some philosophers have claimed that the *3D-4D* debate should be dismissed, and it is extremely relevant to my project the reason why they say so.

Thus I here discuss three recent papers ([McCall and Lowe, 2006], [Miller, 2005a], [Hofweber and Velleman, 2010]) which try to dismiss the debate. I will present the claims and arguments made by each of these works and ask whether they can be considered examples of dismissivist approaches. I also link each author’s strategy back to Bennett’s analysis, to see if the reasons why they dismiss the debate are similar to the reasons Bennett lists in her paper. This has the purpose of exploring more a point I touched on in chapter one, i.e. whether Bennett’s

¹Roughly speaking, perdurantism is four-dimensionalism, and endurantism is three-dimensionalism. More on these labels shortly.

taxonomy is exhaustive or not. Although Bennett never claims it is, it is interesting to find out whether she has actually managed to cover all possible reasons to be a dismissivist. I will argue that she has not. I would like to stress that this is not a way to criticize Bennett, and it would not be fair if it was. Bennett does not have the purpose of finding out all possible reasons to dismiss metaphysical debates, and I do not have this purpose here either. As Bennett focuses on the possible reasons to dismiss her case studies, I focus on reasons to dismiss my present case study and check whether these reasons are similar to the ones Bennett lists or not.

Some may wonder why I am not attempting a Bennett-style analysis of the *3D-4D* debate, mirroring her argumentative scheme to find out whether this debate should be dismissed for epistemic reasons. In the previous chapter I have discussed the possibility that such argumentative scheme may apply to all metaphysical debates and not only to Bennett's case studies. This could certainly be one possible way to develop an analysis of the *3D-4D* debate, but I am going to follow a different strategy here.² However the point of this chapter is to explore some more reasons why one may want to dismiss a debate about what there is, in addition to the reasons Bennett describes. I would like to find out whether Bennett's trichotomy is exhaustive or not. Given that this is my purpose, it seems appropriate to focus on some important works which claim to have dismissed the *3D-4D* debate and see how they compare to Bennett's framework. This will give us a more complete and deep understanding of dismissivism in debates about what there is.

1. The debate between *3D* and *4D*

In this section I am going to describe the two competing views, *3D* and *4D*, and the problem they attempt to solve. The purpose here is to describe and clarify what the debate is supposed to be about and the crucial features of each theory. The debate between *3D* and *4D* concerns problems that pertain to the persistence of objects, such as:

- how objects persist, i.e. what it means that an object exists through different moments in time;
- how objects retain their identity while changing some of their properties, e.g. what it means that the tree that was in front of someone's house two hours ago is the same as the tree which is in front of that house right now;
- what change is, i.e. what it means that an object changes some of its properties, e.g. how a table that is painted undergoes a change in color.

These and other problems are often interrelated and cannot always be dealt with separately.

²I do acknowledge that this is an interesting project, and this is why I am indeed going to follow exactly this strategy in the next chapter. There I am going to apply Bennett's argument scheme in support of epistemicism to a new case study, the debate between universals and tropes ontologies.

3D and 4D are also labeled sometimes as endurantism and perdurantism, respectively. Some philosophers claim that we should use one label rather than the other (see [Sider, 2001, p. 68]). On one hand, the way 3D and 4D are defined is very important because it determines the appropriate way to dismiss the debate. The strategy to dismiss a debate depends on how the parties involved in the debate are described. On the other hand I do not want to delve into purely terminological issues, and I will only say as much as I need to make the difference between the views at stake clear. For this reason I will stick to the 3D-4D labels throughout the chapter.

There are different possible ways to formulate the distinction between three-dimensionalism and four-dimensionalism and I start by presenting Lewis [1986]’s and McKinnon [2002]’s definitions of 3D and 4D. According to Lewis [1986, p. 202]:

Let us say that something *persists* iff, somehow or other, it exists at various times; this is the neutral word. Something *perdures* iff it persists by having different temporal parts, or stages, at different times, though no one part of it is wholly present at more than one time; whereas it *endures* iff it persists by being wholly present at more than one time.

Four-dimensionalism is the view that ordinary objects persist by perduring. Three-dimensionalism is the view that ordinary objects persist by enduring. Another similar way to draw the distinction is the following, presented by McKinnon [2002, p. 298]. According to three-dimensionalism:

x endures iff (a) x persists, (b) x has no temporal parts, and (c) for any time at which x is located, there is a set whose members compose x at that time.

On the other hand according to four-dimensionalism:

x perdures iff (a) there is a y and z such that y and z are parts of x , y and z have temporal location, and there is no t such that y and z are both located at t , and (b) x has no temporal parts that endure.

Let us specify the definition of 4D further, with the help of [Sider, 2001, p. 59-60], in order to clarify what exactly this view is committed to:

x is an instantaneous temporal part of y at instant $t \stackrel{df}{=} (1) x$ exists at, but only at, t ; (2) x is part of y at t ; and (3) x overlaps at t everything that is part of y at t . [...]

As Sider highlights, according to this definition 4D is the claim that temporal parts exist and that objects are composed of temporal parts.

Both McKinnon’s and Lewis’ definitions are formulated in terms of temporal parts. The main contrast between 3D and 4D is that according to 3D ordinary

objects endure, while according to *4D* they perdure. Moreover, *4D* holds that temporal parts exist, whereas *3D* disagrees with this claim. There are other possible ways to define *3D* and *4D* and I will explore alternatives later on.

To make the difference between *3D* and *4D*, as just defined, clearer, let me use an example. Let us assume a subject *A* is sitting at time t_1 and standing at t_2 . According to the three-dimensionalist view *A* does not have temporal parts, so *A* is present, as a whole, both at t_1 and at t_2 . At t_1 , *A* as a whole has the property of being sitting and, at t_2 *A*, as a whole, has the property of being standing.

Conversely, according to the four-dimensionalist view *A* is a mereological sum³ of temporal parts. So at t_1 *A*'s temporal part₁ is sitting, and at t_2 *A*'s temporal part₂ is standing. According to this picture *A* is not present as a sum of parts in every instant, but only one temporal part of *A* is present in every instant.

I would now like to analyse why *3D* and *4D* disagree (or think they disagree). This topic can be explored at two different levels, the metaphysical one and metametaphysical one. There are two aspects to the metaphysical analysis. The first one shows why the philosophers involved in the debate disagree, i.e. why some endorse one view rather than the other. The second aspect of the metaphysical analysis has the purpose of highlighting what *3D* and *4D* disagree about. I am going to show that according to one way of understanding the debate, they disagree about what there is. On the other hand, at the metametaphysical level, one can ask if the disagreement between the two views is genuine or apparent. Do three-dimensionalists really disagree with four-dimensionalists or do they only *think* they disagree?

First of all I am going to discuss the two aspects of the metaphysical analysis. The purpose of this analysis is not expressing my own view about which of these two views solves the problems of persistence better. Rather my point is to highlight core elements of comparison between the two views to be kept in mind when I move on to describing dismissivist approaches. This will happen in section two, where I delve into the metametaphysical analysis of this debate thanks to the works of [McCall and Lowe, 2006], [Miller, 2005a], and [Hofweber and Velleman, 2010].

The first aspect of the metaphysical analysis highlights that the holders of each view try to show that their own view is better than the other, and that the other view fails to account for something. For instance, four-dimensionalists claim that three-dimensionalists cannot explain how a change in intrinsic properties happens, because they end up making contradictory claims. As an example, consider again a subject *A*'s change of shape, which is a change in intrinsic properties. The three-dimensionalist has to say that *A* has both the property of being standing and

³According to Lewis [1986, p. 69]:

The *mereological sum* [...] of several things is the least inclusive thing that includes all of them as parts. It is composed of them and of nothing more.

the property of being sitting, therefore attributing to A contradictory properties (i.e. the properties of ‘being standing’ and ‘not being standing’). On the other hand the four-dimensionalist can claim that A ’s temporal part₁ is standing and A ’s temporal part₂ is sitting. In this way the contradictory properties are attributed to two different things, thus dissolving the contradiction.

Three-dimensionalists can reply to this objection. There are three main responses to the charge that change in three-dimensionalist terms is contradictory. First of all, 3D can offer an adverbialist reading of properties, according to which an object O does not have the property F *simpliciter*, but in a ‘timely way’. For instance, O can be F in-a- t_1 -way, and non- F in-a- t_2 -way. This attribution does not generate a contradiction because being- F in-a- t_1 -way and being- F in-a- t_2 -way are compatible. There is only one property, that of ‘being F ’, which is instantiated in two different ways, and this solves the contradiction. Secondly, 3D can argue that properties are had in relation to times, so for instance an object O can be F -at- t_1 , and not- F -at- t_2 . The property of ‘being F -at- t_1 ’ is a different property from ‘being F -at- t_2 ’ and this dissolves the apparently contradictory property attribution. Thirdly, three-dimensionalists can endorse presentism, a theory according to which only present objects exist. The contradictory attribution of F and non- F to an object O cannot happen under presentism because only one O exists, i.e. the present one, thus there are no other O s to which different properties can be ascribed (see [Hawley, 2010] for a more detailed discussion of these issues).

Furthermore, three-dimensionalists claim that the four-dimensionalist’s picture is an over-reaction to the problem of change ([Johnston and Forbes, 1987]) and that four-dimensionalism is implausible. Another charge from the three-dimensionalist theorist to four-dimensionalism is that four-dimensionalism does not really explain how change occurs. Consider the same example as above. A person A is sitting now and was standing three hours ago. It looks like it is A as a whole having this experience, not just a part of A . It is not clear how a succession of temporal parts, each of them having different properties, can explain how A changes. According to four-dimensionalism different objects have different properties, but this contrasts with the intuition that it is one and the very same object which is changing some of its properties. This intuition is particularly strong in the case of change of properties for humans. If someone’s hip is replaced, he feels as if it was *him* undergoing a change, rather than a temporal part of him that now does not exist anymore.

I now move on to the second aspect of the metaphysical analysis. If we take 3D and 4D to be theses about the existence of temporal parts (which is what I did earlier on in this section), the 3D-4D debate seems to be about existence. The two sides of the debate make different and contradictory claims about what there is. Temporal parts are concrete objects,⁴ so 4D is committed to the existence of concrete objects. 3D is committed to the existence of concrete objects as well. So

⁴See chapter four, section 1 for more on this.

3D and *4D* share the general ontological commitment to concrete objects, but *3D* rejects the commitment to some specific concrete objects, i.e. temporal parts. *4D* disagrees with *3D* about which concrete objects exist and about the way objects persist through time. The crucial difference between *3D* and *4D* is about what natures⁵ concrete objects have.⁶ *3D* argues that temporal parts do not exist, and thus that objects do not have temporal parts and do not perdure. The nature of *3D* objects is to endure. On the other hand *4D* claims that temporal parts exist and that they can explain how objects persist. The nature of *4D* objects is to perdure by having different temporal parts at different times.⁷

These remarks show that the debate between *3D* and *4D* can be understood as an ontological one, i.e. it is a debate about what there is and not a debate about, e.g., what grounds what, or about what the best way to describe the world is. However, there are different ways to understand the disagreement between *3D* and *4D*, because some do not regard *3D* and *4D* as theses about the existence of temporal parts. The *3D-4D* debate does not necessarily have to be formulated as a debate about what there is. For instance, according to Parsons [2000]⁸ the *3D-4D* debate is not about what there is. In Miller [2005a, p. 99]’s words:

Josh Parsons, for instance, argues that the four dimensionalist need not be committed to the existence of temporal parts. He argues that just as it is possible for an object to be spatially extended and yet be mereologically simple, so too it is possible

⁵This is a delicate issue. How much can we disagree about the nature of what there is before this becomes a disagreement about what there is? Although this is an interesting question, it is not addressed in this thesis. For the purposes of this chapter I am going to stick with what most three-dimensionalists and four-dimensionalists do, i.e. they normally agree about the existence of medium sized dry goods, e.g. chairs, while disagreeing about their natures. By ‘natures’ I here simply mean ‘properties’, or ‘features’. It is natural to link this with a discussion of grounding, but I do not mean to anticipate issues about grounding here and I refer the reader to chapter four, for more details on this.

⁶Fine [2012, p. 5] agrees that *3D* and *4D* differ with respect to which natures objects have:

The second branch of metaphysics, which I call *naive* or *pre-critical*, is concerned with the nature of things without regard to whether they are real. We might ask, for example, whether material things exist in time in the same way as they exist in space (with the four-dimensionalists thinking they do and the three-dimensionalists thinking they do not).

⁷It is worth mentioning that there other ways to understand what is going on in the *3D-4D* debate. Eminently, Lewis [1986, p. 203] argues that there is no such thing as a *3D-4D* debate:

These endarkeners [people who claim that things are wholly present at each moment of their existence] may think themselves partisans of endurance, but they are not. They are perforce neutral, because they lack the conceptual resources to understand what is at issue. [...] they have no concept of a temporal part. [...] Therefore they are on neither side of a dispute about whether or not persisting things are divisible into temporal parts. They understand neither the affirmation nor the denial.

⁸I would like to thank Josh Parsons for the useful remarks and suggestions he provided in private conversation.

for an object to be temporally extended and be mereologically simple: that is, to lack temporal parts.

Parsons starts from two assumptions. One is the ‘Dimensionality Thesis’ ([Parsons, 2000, p. 3]), according to which the universe has three spatial dimensions plus the dimension of time. The other is the ‘Analogy thesis’ (*ibid.*) according to which time is analogous to space. Traditionally, it is thought that since time is analogous to space and things extend through space by having spatial parts, then things extend through time by having temporal parts. Parsons denies this and argues that a four-dimensionalist does not need to believe in temporal parts. In other words things can perdure through time without having different parts at different times.⁹

From this it should be clear that what is at stake in Parsons’ case is not the existence of temporal parts. His view of $4D$ is not committed to the existence of temporal parts and thus it is compatible with $3D$,¹⁰ which rejects the existence of temporal parts. This shows a completely different way to interpret the debate between $3D$ and $4D$, from the one I have stated above.

In what follows I am going to focus on works that discussed the debate between $3D$ and $4D$ when taken as theses about the existence of temporal parts. I am not going to discuss how the debate would look like for dismissivist purposes if we accepted Parsons’ formulation, not because I think Parsons’ formulation is wrong or uninteresting, but rather because I need to restrict the field of inquiry. In the following sections I will talk about three papers that offer three different ways to interpret the $3D/4D$ debate, understood as a debate about the existence of temporal parts. I will focus on whether these interpretations have dismissivist traits, and I will compare them with Bennett’s definition of dismissivism.

2. Deflating the debate

The previous section presented some sample definitions of $3D$ and $4D$, according to which the dispute between the two views is about the existence of temporal parts. I described why the two views, so defined, disagree about what there is. I now move on to the metametaphysical analysis of the debate, and I thus ask the question whether the disagreement between the two views is genuine. This question is relevant to dismissivism, because if it turns out that the disagreement is not genuine for some reason, then this may lead to dismiss the debate, i.e. not address it anymore. From my remarks about the differences between $3D$ and $4D$, the following metaontological options emerge:

⁹An analogy with space can help understand how this works. Simples (such as fundamental physical particles) extend through space without having parts in different places. Other bigger things, for instance tables, extend through space by having different parts in different places. With this in mind it is possible to imagine that some things can perdure through time even though they do not have different parts at different times.

¹⁰Parsons refers to three-dimensionalism as ‘endurantism’, but I am sticking to calling it ‘ $3D$ ’ for the sake of simplicity.

- $3D$ and $4D$ express incompatible theories, the disagreement between them is genuine, and a debate about which is correct is worth having;
- $3D$ and $4D$ express incompatible theories, but nonetheless there are other reasons to think that the disagreement between them is not genuine and therefore a debate about which is correct is not worth having;
- $3D$ and $4D$ express different theories which are compatible, and they are both correct, so there is no point debating which is right;
- $3D$ and $4D$ do not express different theories and because of this (and possibly other reasons) the disagreement between the two views is only apparent and the debate about which is correct should be dismissed.

In what follows I will describe the work of [McCall and Lowe, 2006], [Miller, 2005a], and [Hofweber and Velleman, 2010], who take themselves to be dismissivist about the $3D$ - $4D$ debate. In each case I will present the main claims and arguments and discuss whether and why such claims are ways to dismiss the $3D$ - $4D$ debate.

2.1. McCall-Lowe. McCall and Lowe [2006] claim that there is no fact of the matter as to whether $3D$ or $4D$ is true. McCall-Lowe take themselves to be dismissivist about this debate because they say ‘The so-called $3D$ - $4D$ controversy is a storm in a teacup, and philosophers should not feel obliged to support one side or the other’ (*ibid.* pp. 570-571). Basically this means that the question whether $3D$ or $4D$ is right is misguided, or the wrong question to ask, and as such it should be dismissed.

According to the authors, $4D$ is the view that ordinary objects perdure, and $3D$ is the view that ordinary objects endure. They start by giving the following definitions of endurance and perdurance (*ibid.* pp. 571-572, original emphases):

To *perdure* is to have temporal parts. $3D$ objects, not being extended in time, have no temporal parts and consequently cannot perdure. For such an object to *endure*, we shall say, is simply for it to *exist at more than one time*. [...] An instantaneous temporal part, for example, is a $3D$ object, but it is not a $3D$ object that *endures*, because it exists at only one instant.¹¹

McCall-Lowe’s deflationary strategy is centered around showing that $3D$ and $4D$ are inter-translatable. The crucial element of the inter-translation scheme they offer is the relation between ‘instantaneous $4D$ temporal parts [and] $3D$ objects which exist at one time only’ (*ibid.* p. 574). McCall-Lowe claim that there is a ‘one-one relationship’ (*ibid.*) between these two things and this allows the translation between $3D$ and $4D$. To substantiate their claim, they argue that temporal parts are instantaneous $3D$ objects, but unlike normal $3D$ objects, they do not endure. An instantaneous $3D$ object O does not endure, and has a very short life, i.e. it exists at only one time t . They refer to this kind of objects with the notation $\langle O, t \rangle$.

¹¹This is a concrete example of one of the ontological features of $3D$ and $4D$ I was highlighting above, i.e. $4D$ shares with $3D$ the ontological commitment to concrete objects. The difference lies in the nature of such objects.

This notation stands for the ‘sum’ (p. 573) of physical particles (molecules, atoms) that compose the physical 3D object.

Let us make an example to clarify all this. Take an object such as a mug M , at time t_1 . At t_1 $\langle M, t_1 \rangle$ denotes the molecules and atoms that compose the mug and characterize the properties the mug has at t_1 , say $\{a, b, c, d, e\}$. For instance, at t_1 there are some physical particles that constitute the mug’s handle. If at t_2 the mug is dropped and the handle breaks, the sum of particles that constitutes the mug changes, and that is represented with $\langle M, t_2 \rangle$, which is a different sum from the one above, say $\{a, b, c, d, f\}$.

Now let us take the 4D view of objects. McCall-Lowe represent with the notation $T(O, t)$ the instantaneous temporal part of an object O at a time t . In the case of the mug, we have that $T_1(M, t_1)$ is the temporal part of the mug at t_1 , while $T_2(M, t_2)$ is a subsequent temporal part of the mug that does not have the handle anymore.

We now have the necessary background details to see how the translation works. McCall-Lowe show how to switch from the 3D description to the 4D description of an object O , and vice-versa. In the former case, we start by taking $\langle O, t_1 \rangle$, which is the sum of particles composing O at t_1 . This sum of particles can be ‘replaced’ (*ibid.* p. 574) by $T_1(O, t_1)$, i.e. the temporal part in that moment. Vice-versa, if we take $T_1(O, t_1)$, we can replace it with $\langle O, t_1 \rangle$. The reason why the replacement is possible is because McCall-Lowe are not considering an enduring 3D object O , but rather the sum of particles that composes it at a time, and at that time only.

The purpose of this chapter is to delve into the metaontological issues raised by this view, independently of its consistency, however some remarks are in order. McCall-Lowe endorse the following assumption: ‘material bodies can retain their identity while continually gaining and losing particles’ (*ibid.* p. 573). They seem to rely on science to show that this claim is true and they do not discuss it any further. However I am unsure whether this assumption begs the question. By exploring the role this assumption plays I can clarify my worry. The assumption makes it possible to define a 3D object as a set of sets, each of which contains different particles that compose the 3D object at different times, and as such it plays a central role in allowing the inter-translation to go through. However, one of the ways to assess the correctness and plausibility of 3D and 4D is precisely to see how the two theories explain how objects retain their identity while changing properties (as I highlighted in the introduction). One important philosophical question which is at stake in the debate between 3D and 4D is how a mug can have a handle at t_1 but not at t_2 . Is it the same mug that changes its properties? Or is it two different objects having different properties? When the mug loses a part, like the handle, it is losing particles (atoms and molecules) and, with them, the property of ‘having a handle’. The assumption that ‘material bodies can retain their identity while continually gaining and losing particles’ begs the philosophical question by answering it. There

is no problem whether the mug with the handle at t_1 is the same mug as the mug without the handle at t_2 . The answer is a straightforward ‘yes’.

This seems to me quite a strong objection against the effectiveness of McCall and Lowe translation. However, they might argue back that the philosophical question of how things retain identity through change is not one of the crucial points of discussion between $3D$ and $4D$. They might argue that crucial points at stake in the debate between $3D$ and $4D$ are others (such as: how do things persist?). The problem of identity, on the other hand, is not a problem at all, because science has already told us that things retain identity through change. This is a plausible answer, although this would go against a large amount of literature that does indeed think that identity through change is a problem and, if they wanted to respond in such a way, McCall-Lowe would need to justify their assumption further. Moreover, the answer that identity through change is not a problem might face difficulties in problematic examples, as they are described in popular thought experiments in the relevant literature (e.g. how personal identity is affected by brain transplants).

A further small worry is that, according to McCall-Lowe, the existence of instantaneous $3D$ objects seems not problematic, although I do not think this could strongly undermine their inter-translation proposal. It is in principle possible that such objects exist, even if we have no experience of them. A much more pressing point concerns the introduction of ‘sums of particles’. This move may look worrisome to some, in the absence of a more precise explanation of what sums are, and a distinction between sets and sums. This is a pressing question for McCall-Lowe, because if $3D$ objects are sets, and if sets are abstract objects (as most think they are), then $3D$ objects are abstract. To avoid this, an explanation is needed to say why sets are not abstract objects. McCall-Lowe do not seem to be concerned about this and mention sums and sets in various passages. Here they say (p. 573):

Sums-of-particles-at-a-time need not be considered as new semantic entities, i.e. as new members of the domain, but can be identified with the semantic referents of predicates. [...] the basic building blocks of $3D$ semantics are $3D$ particles which exist through time. These are the sole elements of the domain.

In this passage I think McCall-Lowe are saying that the basic entities of the $3D$ ontology are physical particles (atoms, or whatever science tells us they are). On the contrary sums do not belong to the domain, i.e. they are not part of the $3D$ ontology. ‘Sums of particles’ is thus only a convenient linguistic expression to refer to particles without having to name them one by one every time. Moreover the notation $\langle O, t \rangle$ does not refer to a *set* of particles, but to a sum of particles. We can interpret McCall-Lowe charitably, and assume they are not using ‘sum’ as synonym for ‘set’. ‘Sum’ could be interpreted as a non-technical term which does not refer to sets of particles, but is a plural term, which simply refers to a bunch of particles spatially close to one another, thus avoiding problematic commitments to abstract objects. If this is the case then $3D$ objects are not sets of particles, but sums

of particles. This would be good for their account, because sets are traditionally thought of as abstract objects, and if $3D$ objects were sets this would make them abstract, which they clearly are not.

However there are other passages that quite clearly contradict this charitable interpretation and leave many issues open. First of all, on p. 573, McCall-Lowe provide an example of their account, by describing Tibbles the cat as $\langle S, t \rangle$:

Let S be the set of just those particles which are located within a certain cat-shaped spatial volume at a time t and which constitute Tibbles at t [...]

Here S is defined as a set. But some tension arises here because $\langle S, t \rangle$ is a sum, according to the previous passage. What is the sum supposed to be? One could say that set-of-particles + time = sum-of-particles-at-a-time. Apart from the obscurity of this equation, the immediate problem is that one may want to consider a $3D$ object in general, without referring to a particular time of its existence. If we take time out of that equation, it turns out that a set of particles is the same as a sum of particles, and this strengthens my suspicion that McCall-Lowe use these two words as synonyms.

Moreover, in a subsequent passage they say that (p. 574):

In $3D$ ontology, O is the set of particles which successively constitute it at each moment O exists, a set which ‘changes’, i.e. is replaced by a new set, each time O gains a new particle or loses an old one. [...] The collection of all such momentary sums $\langle O, t \rangle$, for every time at which O exists, yields the set of sets of $3D$ particles which successively constitute O

The first sentence seems at odds with the passage I quoted above, because here McCall-Lowe state that three-dimensional objects *are* sets of particles. Moreover, the mention of ‘in $3D$ ontology’ and ‘constitute’ seem to suggest that sets of particles are members of the quantificational domain of $3D$. In particular it is not clear what McCall-Lowe mean when they say that a set of particles ‘constitutes’ a three-dimensional object. Do three-dimensional objects have other constituents, apart from sets? Are sets of particles spatial parts of three-dimensional objects? Could ‘constitute’ mean ‘ground’ here? Does the object supervene on the set of particles or vice-versa, or in other words what is the relation between the object and the set? McCall-Lowe do not answer any of these questions, and this makes the passage obscure.

Overall, I think these unclarities ultimately undermine the plausibility and efficacy of McCall-Lowe’s dismissivist strategy.

Nonetheless, I still would like to make some remarks about the metaontological relevance of McCall-Lowe’s view. In order to do this, let us momentarily set aside the objections I raised, or any other worries the reader may have. Let us assume

that McCall-Lowe's view is correct for the moment and explore which kind of dismissivism it is. I now turn to explore whether and if yes why [McCall and Lowe, 2006] is a dismissivist view. McCall and Lowe [2006, p. 577] say:

We do not advocate that philosophers abandon 4-dimensionalism in favor of 3-dimensionalism, nor 3-dimensionalism in favor of 4-dimensionalism. [...] ultimately it makes no difference which ontological position we adopt. The inter-translatability of 3D and 4D descriptions of the world enables us to move from one ontological stance to the other with ease and confidence.

McCall-Lowe seem to argue, at the end of their paper, that there is a genuine difference between the two views, because they are different 'ontological stances'. The difference is that according to 3D there are no temporal parts, while according to 4D temporal parts exist. They say (*ibid.*):

Both ontologies need to be appealed to, if we are to put together an elegant and comprehensive world-view. For some purposes the 4D picture is more illuminating, [...] and for other purposes the 3D picture is preferable.

There is a lot going on in these passages, so let us try to untangle which claims McCall-Lowe are making:

- the choice between 3D and 4D is not a clear cut ontological choice;
- there is no fact of the matter whether 3D or 4D is true;
- 'both ontologies need to be appealed to', 3D and 4D are different 'ontological stances' (*ibid.*);
- '3D and 4D descriptions are equivalent in the sense of being intertranslatable without remainder' (p. 570).

Throughout their analysis McCall-Lowe seem to acknowledge a genuine ontological difference between 3D and 4D. They are not arguing that the two views are two ways to express the same theory. If this was the case, 3D and 4D would simply be two different languages, i.e. two different ways of using words, but they would not express different contents. McCall-Lowe present an inter-translation schema and this may be easily mistaken to be an argument to the effect that the difference between 3D and 4D is merely linguistic. This is not so. McCall-Lowe highlight that the inter-translation is a way to switch from the 3D description to the 4D description and vice-versa. They never claim that $\langle O, t \rangle$ is *the same object as* $T(O, t)$. 3D and 4D are genuinely different theories, they describe the underlying facts in genuinely different ways, and they make different claims about what exists. $\langle O, t \rangle$ and $T(O, t)$ are different objects.

This claim seems puzzling and I will try to make sense of it. Since 3D and 4D are genuinely different ontologies, one might feel inclined to want to discover which view describes the world correctly. Such a person may want to ask: 'given that 3D and 4D are different ontologies, are there temporal parts or not? Is 3D or 4D

right?'. Even though this could be a fairly plausible attitude towards the debate, McCall-Lowe have a different view. They claim that the initial question: 'is *3D* or *4D* correct?' is misguided, or not the right question to ask. In the second part of the quotation stated above, they say that we need to use both ontologies to describe the world. This, together with the claim that *3D* and *4D* are genuinely different ontologies, may lead some to infer from it that some objects are three-dimensional, while others are four-dimensional. However this is not the correct way to interpret their words, since they explicitly state 'Equally precise and rigorous ontological foundations may be constructed using either *3D* or *4D* building blocks [...] there is no 'fact of the matter' as to whether we live in a *3D* or *4D* world' (p. 570). When they add to this that both ontologies need to be appealed to they are simply highlighting the fact that the *3D* description fits some objects better than the *4D* description, and vice-versa.

McCall-Lowe also challenge the traditional claim that *4D* can explain how change in intrinsic properties occur better than *3D* does. This is an important part of their dismissivist strategy in that it undermines one of the most popular reasons to prefer *4D* over *3D*, showing that *3D* is just as good as *4D* in this respect, and it does not fall into contradiction. To clarify this with an example, consider a case of someone bending his arm. The mutual distance of the parts of the arm changes and a change in distance is a change in the intrinsic relations between the parts of the arm. *3D* seems to have a problem in accounting for this (as I highlighted in section one). *4D* on the other hand smoothly explains the change of intrinsic properties by saying that it is two different things having different properties (i.e. subsequent temporal parts of an object) and not one and the same thing. Contrary to many philosophers, McCall-Lowe think that the three-dimensionalist way of speaking best describes cases in which things are in motion. Four-dimensional objects mimic motion as a movie mimics real movement, i.e. with a succession of temporal parts (or frames, in the movie case) that give the illusion of movement. *3D* on the other hand can more appropriately describe motion, thanks to subsequent sets of particles which lose and gain particles. The inter-translation schema helps moving from one description to the other, to find out easily which description captures the object's features best. Ultimately, *3D* and *4D* are intertranslatable 'without remainder' and this is what shows that *3D* and *4D* are not descriptions of different types of objects that can coexist together, as some may erroneously think.

I think it is difficult to understand how all these apparently incompatible claims can stick together. I hope clarification on this can come from reflection about what *3D* and *4D* are supposed to be. For the whole length of the paper, McCall-Lowe talk about *3D* and *4D* as if they were theories, i.e. groups of statements that can be true or false. However in the conclusion of the paper they introduce the term 'ontological stance'. This is important because if *3D* and *4D* are theories which are supposed to be true or false, then McCall-Lowe's final claim that 'both ontologies need to be appealed to' is pretty difficult to make sense of. Do we need

both ontologies because they are both true, or because one theory is true of some objects, while the other is true of others? It is clear from what McCall-Lowe say that neither of these scenarios is the case. On the other hand if we interpret *3D* and *4D* as stances, i.e. standpoints, then McCall-Lowe's claim is easier to accept, because one does not necessarily have to assign a truth value to a stance, while one has to do it for a theory. I think the latter interpretation makes their claims more acceptable and understandable.

To sum up, their paper starts with the description of the *3D-4D* controversy, conceived as the question: 'Is *3D* or *4D* right?'. They dismiss this question because it does not capture the nature of the issue at stake between *3D* and *4D*. In particular, they dismiss the *3D-4D* debate as a choice between one true theory and a false one, because *3D* and *4D* are equivalent (in the sense they specify). It is not the case that *3D* and *4D* are talking past each other, or that they are having a verbal dispute. McCall-Lowe argue that *3D* and *4D* make genuinely different claims, i.e. they describe the world in genuinely different ways. It is however possible to switch from the *3D*-description of the world to the *4D*-description of the world and this shows that one can choose to describe the world using one or the other ontology and there is no reason to prefer one way or the other. McCall-Lowe suggest that a more meaningful debate to be had is the one to decide the best standpoint to describe the world. Sometimes the standpoint should be *3D*, sometimes *4D*. The choice between *3D* and *4D* is thus a choice of how to describe the world, rather than a choice of the correct ontology. This shows how the four claims listed above can all be held at once.

A second aspect of my analysis of McCall-Lowe's dismissivist approach is to show how their reason to be a dismissivist fits with Bennett's analysis of dismissivism. To start with we can compare their approach with Bennett's antirealism:

There is no fact of the matter about whether or not there are temporal parts. "There are temporal parts" does not have a determinate truth-value.¹²

We immediately face a major issue when comparing McCall-Lowe with antirealism, because anti-realism is (knowingly and on purpose) underdescribed by Bennett. Superficially, McCall and Lowe would probably accept the definition just offered. However Bennett does not specify what 'no fact of the matter' means (indeed she argues this is the very reason why she thinks anti-realism is not a fruitful position to discuss). In chapter one I suggested to interpret antirealism as referring to metaphysical indeterminacy. I do not think McCall-Lowe are advocating that it is metaphysically indeterminate whether things are three-dimensional or four-dimensional. McCall-Lowe's argument for 'no fact of the matter' lies in their notion

¹²This is Bennett's definition of antirealism, appropriately modified to suit the present case [Bennett, 2009, p. 39].

of equivalence, and not in the notion of metaphysical indeterminacy. For these reasons, I do not think McCall-Lowe would subscribe to Bennett’s antirealism.

Secondly, we can see if McCall-Lowe fits into Bennett’s definition of semanticism ([Bennett, 2009, p. 40]), which I here modify appropriately:

The dispute about whether there are temporal parts is purely verbal. The disputants assign different meanings to either the existential quantifier, the predicate “temporal part”, or the negation operator, and are consequently just talking past each other.

This does not describe McCall-Lowe’s reason to be a dismissivist, if we carefully understand what their intertranslation shows. Their intertranslation does not have the purpose of showing that $3D$ and $4D$ are talking past each other, or using the same words with different meanings. Rather the intertranslation only shows how to switch from the $3D$ -way to describe things to the $4D$ -way to describe things. This also shows that $3D$ and $4D$ are not engaged into a verbal dispute, either, i.e. it is not the case that they attribute same semantic meaning and different speaker meanings to the same words.

Lastly, we can check if McCall-Lowe’s approach can be captured by the definition of epistemicism, ([Bennett, 2009, p. 42], slightly modified):

Disputes about the truth value of ‘There are temporal parts’ are not verbal disputes. But there is little justification for believing either that it is true or that it is false.

Again, it is apparent that this does not describe what McCall-Lowe think of the debate about temporal parts, because the reason why one cannot choose between $3D$ and $4D$ does not lie in the justification one has to believe one or the other, but rather in the fact that the two are equivalent.

I have so far presented McCall-Lowe’s claims and arguments and I have shown that their dismissivist strategy does not fit Bennett’s trichotomy. As a consequence it is natural to raise two questions: in which sense are McCall-Lowe dismissivist? Is there a deep reason why McCall-Lowe’s dismissivist strategy escapes Bennett’s classification? The deep reason why it does so is that Bennett’s three reasons to be a dismissivist always rely on the initial assumption that the disputants’ views are mutually exclusive, while McCall-Lowe think $3D$ and $4D$ are compatible views (in the sense they specify). This may make some suspect that McCall-Lowe’s view is not really an instance of a dismissivist strategy. McCall-Lowe may superficially seem to dismiss the debate for epistemic reasons, because $3D$ and $4D$ seem to disagree about the existence of temporal parts, but McCall-Lowe argue that there is no point debating this. This seems similar, *prima facie*, to Bennett’s case studies, composition and colocation. Disputants in these debates seem to talk about composition and colocation, but Bennett shows that there is no point talking about these topics because we cannot know which theory is true. However the similarity between McCall-Lowe and Bennett is only apparent I think. The crucial difference

between them is the *reason* behind McCall-Lowe's argument. In McCall-Lowe's case the reason why there is no point having the 3D-4D debate is that 3D and 4D are not disputants, they are not mutually exclusive views. 3D and 4D do not hold incompatible views. On the other hand, Bennett acknowledges and maintains that the disputants in the composition and colocation debates are not compatible views.

In other words the reason why Bennett dismisses these debates is not a reason to think that disputants in these debates hold compatible views. On the contrary, McCall-Lowe's reason not to debate whether 3D or 4D is true has important consequences for the views involved: the 3D and 4D I find at the end of McCall-Lowe's paper are not the same views I met at the beginning of it. This is because initially 3D and 4D are treated as incompatible theories, while at the end they are regarded as compatible 'stances'.

If this is right, are McCall-Lowe dismissing the debate? I think they are, at least in some respects, for two reasons. First of all, they try to decrease the difference between 3D and 4D. For instance they show how 3D's account of change can be logically consistent and as good as 4D's. This is a dismissivist vein because it undermines one of the reasons to prefer one view over the other. Secondly, they provide an intertranslation between 3D and 4D. This is a dismissivist trait because it shows that the two views are not so different as they are traditionally thought to be. On the other hand, McCall-Lowe's conclusion is not strictly dismissivist, according to the way I am using the word in this thesis, because they think the two views are compatible.

To conclude, one last objection may be raised against McCall-Lowe, with which I agree. The worry is that some crucial questions are left open. For instance, I am supposed to accept the claim that 3D and 4D objects are different, but I can freely pick one stance or the other. Why? Nothing in what McCall-Lowe say answers this question. There seem to be a few reasons why we could choose between the two views. Either 3D and 4D objects are indeed the same, but the two views describe them differently, or we cannot find out whether things are ultimately sets of particles or temporal parts, or it is metaphysically indeterminate whether things are made of sets of particles or temporal parts (note that these reasons mirror Bennett's taxonomy). McCall-Lowe explicitly deny that the first option is the case, and from what they say in the paper it does not look like they would welcome any of the other two explanations. I cannot find a way to defend McCall-Lowe against these charges. However, in McCall-Lowe's work I can certainly see some dismissivist traits and this is the reason why, despite all the issues raised, I have included a discussion of it in this chapter.

2.2. Miller. I now turn to the discussion of Miller [2005a], who ultimately argues that 3D and 4D are metaphysically equivalent.¹³ For this reason she claims

¹³Miller is careful in distinguishing eternalist and presentist readings of 3D and 4D. I am not going to keep this distinction in my discussion of her work and I will focus on eternalist readings.

the choice between one theory or the other is a ‘mere sociological choice, interesting though it may be. [3D and 4D] are simply two ways of describing the same underlying metaphysics’ (p. 114). According to Miller, two theories are metaphysically equivalent only if they are true in the same worlds and false in the same worlds. Moreover, in order to be metaphysically equivalent, two theories have to be inter-translatable, and they have to have the same theoretical virtues (simplicity, explanatory power, . . . , see *ibid.* p. 92). I will first of all describe Miller’s proof that 3D and 4D are metaphysically equivalent. Then I will discuss whether this is a reason to be a dismissivist about the debate and compare McCall-Lowe and Miller. I will close this section with a discussion whether Miller fits Bennett’s trichotomy.

According to Miller, two theories are inter-translatable, if they meet the two following conditions. First of all it must be possible to provide a translation manual, i.e. a ‘non-arbitrary mapping of the sentences of one theory onto the sentences of another’ ([Miller, 2005a, p. 104]). The second condition is that ‘if one theory recognizes some difference in kind between certain phenomena, then so does the other theory’ (*ibid.* p. 92). The translation manual has to take this into account.

Miller argues that 3D and 4D are inter-translatable ‘because they have different views about what it is to have a part’ (*ibid.* p. 100). Her inter-translation hinges on the notion of ‘part’. Let us start with the definitions of 3D and 4D that Miller puts forward (*ibid.* pp. 94 and 96).

3D: An object endures iff it is wholly present at each moment at which it exists, where an object is “wholly present” at a time just in case all of its parts are present at that time and where “ P is part of O ” is true at any time t iff at t , P is part_{*mb*} of O tly.¹⁴

4D: An object O perdures iff it is the mereological fusion of temporal parts, where x is an instantaneous temporal part of y at t iff x is part of y and x exists at, but only at t and x overlaps every part of y that exists at t .

Miller defines the notion of part_{*mb*} as (*ibid.*):

some metaphysically basic sense of having a part in a temporally modified manner. [...] The ordinary sense of having a part is captured by having some part_{*mb*} P at t in a tly manner.

Miller’s project is to show how to understand both 3D and 4D *via* the notion of ‘part_{*mb*}’. The rationale behind Miller’s notion of part_{*mb*} is to make 3D and 4D compatible with eternalism. Eternalism is the view that ‘objects from both the past and future exist just as much as present objects’ (see [Markosian, 2010]). Objects

Moreover, Miller refers to 3D and 4D as endurantism and perdurantism, respectively. For the reasons discussed at the beginning of this chapter, I will stick to my terminology of 3D and 4D.

¹⁴The definition borrows from an adverbialist account of properties according to which the having of properties is temporally relativised such that an object that is red at t_1 is red in a t_1 ly manner’ (*ibid.*).

have different parts_{mb} during their lifetimes, for instance a chair can be blue at t_1 and red at t_2 . However, ‘ O has a part_{mb} ’ (where O stands for an object) does not mean the same as ‘ O has a part_{mb} presently’. If eternalism is to be made compatible with $3D$ and $4D$ a story has to be told about parts_{mb} that objects possess both at the present time and at other times. But let us go one step at a time. Miller says (p. 94): ‘the ordinary English sense of ‘property’ involves being blue t_3 ly at t_3 ’. And also (p. 95): ‘the property of having P at t is the property of having P tly’. We can mirror these claims about property talk to temporal parts. Take the ordinary English sentence ‘The chair is red at t_3 ’. In the part_{mb} terminology this means that the chair has a red part in a t_3 ly manner at t_3 . In the eternalist reading, at t_n , all parts_{mb} of O exist, so in particular at t_3 O has not only its parts_{mb} t_3 ly, but also all its other parts_{mb} , the ones it has t_1 ly, t_2 ly, t_4 ly, ...

According to $3D$, ‘ O is wholly present at t_1 just if every t_1 ly part_{mb} is present at t_1 ’ (where O is an object and t is a time; *ibid.* p. 101). According to $4D$, ‘an object O has a temporal part O -at- t_1 just if every t_1 ly part_{mb} of O is present at t_1 ’ (*ibid.*).¹⁵ These are the ways to understand what $3D$ and $4D$ claim, using the notion of part_{mb} . From this it is apparent that the two definitions have the same antecedent ‘if every t_1 ly part_{mb} of O is present at t_1 ’. Miller argues that this shows that $3D$ is inter-translatable with $4D$. Let us clarify this with an example. There is a mug with a handle at t_1 , at t_2 the mug is dropped and the handle breaks. In $3D$ terms, the mug is wholly present at t_1 with all its parts. For this to be the case, every t_1 ly part_{mb} has to be present at t_1 . The mug without the handle is wholly present at t_2 , for this to be the case every t_2 ly part_{mb} has to be present at t_2 . In $4D$ terms, there is a temporal part₁ of the mug with the handle at t_1 , and for this to be case every t_1 ly part_{mb} has to be present at t_1 . At t_2 there is a temporal part₂ of the mug without the handle, and for this to be the case every t_2 ly part_{mb} has to be present at t_2 . This shows for Miller that in both cases it is parts_{mb} which explain what there is and which explain change through time.

In the second part of her work Miller shows that $3D$ and $4D$ are metaphysically equivalent. Part of the proof that they are metaphysically equivalent is that they are inter-translatable, but for the proof to be complete other criteria have to be met. Miller [2005a, pp. 99 and 105] says:

The first criterion of metaphysical equivalence is empirical equivalence [...] there is no possible observational prediction that would be a prediction of three, but not four dimensionalism or vice versa, thus we can conclude that the two theories are empirically equivalent.

It is plausible to hold that endurantism and perdurantism are

¹⁵ Part_{mb} does not appear in the general definition of $4D$ Miller provides, because she wants to highlight that $3D$ and $4D$ are using the same word ‘part’ with different meanings. This is why she presents definitions of the two views, in which $3D$ uses the notion of ‘ part_{mb} ’ while $4D$ does not.

equally simple. First, neither theory posits the existence of entities that the other does not. Second, the mapping between three and four dimensionalism is not disjunctive, that is, we do not map one sentence of one theory, onto a long disjunction of sentences of the other theory.

To show that three and four dimensionalism are metaphysically equivalent requires the additional task of showing that they are explanatorily equivalent.

Miller's discussion of these topics is complex and delving into details would bring us too far from the reason why I am discussing her views, i.e. dismissivism. For the sake of my purpose I thus endorse her final result, i.e. that *3D* and *4D* are metaphysically equivalent because they are inter-translatable, empirically equivalent, equally simple, and explanatorily equivalent.

Now I am turning to the discussion whether Miller's proof of metaphysical equivalence of *3D* and *4D* counts as a form of dismissivism of the debate. Miller's starting metaontological question is: 'is the disagreement between *3D* and *4D* genuine?'. Miller answers that it is not genuine, as it is apparent from this passage: 'Appearances to the contrary, three and four dimensionalism are metaphysically equivalent theories, and thus neither one is to be preferred over the other' (p. 91). The proof of metaphysical equivalence highlights that *3D* and *4D* are two ways of expressing the same theory, i.e. they are linguistic variants. This means that *3D* and *4D* are not making different claims, and do not endorse different ontological commitments. Therefore the dispute over whether *3D* or *4D* is correct is dismissed by showing that *3D* and *4D* are one and the same theory. Also the question of what there is does not arise if *3D* and *4D* really are two ways of expressing the same claims, because we are not faced with a choice between two different ontologies. Miller thinks that there is a more interesting question to ask: 'should we talk about the world using the *3D* language or rather using the *4D* language?' Because *3D* and *4D* are uttering the same propositions with different sentences, this question is similar to asking whether we should use English or Italian to describe the world.

If we want to link Miller's dismissivism back to Bennett's analysis, it is important to highlight that Miller's proof of metaphysical equivalence is done in steps, and these steps have different features. This makes Miller's dismissivist attitude many-faceted and complex and because of this it is difficult to constrain it into a definition. Let us start by assessing the role of Miller's inter-translation. The proof of inter-translation plays a very important role in Miller's argument strategy as it is the first criterion two theories have to meet to be considered metaphysically equivalent. The inter-translation works at a linguistic level, showing how one can translate expressions of three-dimensional language into expressions of four-dimensional language. It is here interesting to highlight similarities and differences between Miller's inter-translation and McCall-Lowe's inter-translation.

McCall-Lowe's inter-translation gives a way to switch from one description to the other, as I discussed in the previous section. This 'switch' operates entirely at a linguistic level and McCall-Lowe do not advance any claims of metaphysical equivalence between $3D$ and $4D$. For Miller things are rather different. First of all, Miller's claim is not only that $3D$ and $4D$ are inter-translatable, but rather that the two theories are metaphysically equivalent. Inter-translatability is only one of the steps that Miller needs in order to show that $3D$ and $4D$ are metaphysically equivalent. For Miller, it is metaphysical equivalence that dismisses the debate, not inter-translatability alone. This means that two theories could be inter-translatable but still not metaphysically equivalent, according to Miller's standards.

The second important feature of Miller's account makes the difference from McCall-Lowe even clearer. Miller's strategy provides a translation manual between $3D$ and $4D$. A translation manual is a linguistic device, that matches sentences of one theory with sentences of the other. $3D$ and $4D$ are talking past each other, Miller explicitly says (p. 100), but this is not enough to show that the two views are intertranslatable. The reason why such a manual can be written is because of the important notion of part_{mb} . Part_{mb} is not a linguistic device that allows us to translate $3D$ into $4D$ and vice-versa. This means that 'part_{mb}' is not a word that has a more general meaning than the word 'part' as used by $3D$ and $4D$. Part_{mb} is not a concept nor a relation.

Recall that Miller introduces parts_{mb} in her paper to make $3D$ and $4D$ compatible with as many 'ancillary commitments' (p. 99) as possible (e.g. eternalism/presentism, restricted/unrestricted composition). In order for this to work Miller modifies the traditional (Lewisian) definitions of $3D$ and $4D$ and adds commitment to parts_{mb} , because this makes $3D$ and $4D$ compatible with eternalism (and other doctrines). Miller is aware that her definitions are not the standard ones, because she refers to them as a 'technical manoeuvre' (p. 95). The Lewisian $3D$ and $4D$ fail to acknowledge the existence of parts_{mb} , which allow objects to have parts in a temporally modified manner. It is not only the case that the two views are using language in different ways - if this was the case, the translation manual would show how each view is mistaken about some words meanings, providing a list of terms both views can adopt, and new words definitions. Miller rather argues that there is something *at the metaphysical level* both views are missing, i.e. the existence of parts_{mb} . The translation then shows how $3D$ can be reformulated in terms of 'parts_{mb}' and how $4D$ can be reformulated in terms of 'parts_{mb}'. This 'reformulation' is a linguistic operation, because it consists of rewriting $3D$ and $4D$ in new terms. What allows this process of rewriting is the existence of parts_{mb} .

If this interpretation of Miller's paper is correct, then Miller seems to be pursuing two different purposes. On the one hand she asks the question whether the $3D$ - $4D$ disagreement is genuine. She explicitly answers this question in the negative, showing that disputants are talking past each other about what 'part' means and gives a proof of intertranslatability and metaphysical equivalence between them.

On the other hand Miller is also claiming that both *3D* and *4D* are making a mistake because they fail to acknowledge the existence of parts_{mb} . I think it is correct to interpret parts_{mb} as physical concrete objects, because they compose bigger objects and make it the case that objects have the property they do. A chair is red at t_1 in virtue of having a red part_{mb} t_1 ly at t_1 . If we could cut an object down to its parts, they would be there, concrete instantaneous objects, composing bigger objects that persist through time. If this view of parts_{mb} is accurate, then Miller is suggesting that there is a third view to consider, the view that parts_{mb} exist and compose larger objects. Moreover this third view is correct, while *3D* and *4D* are wrong.

On the basis of this one may argue that Miller's approach is not dismissivist, because it rather offers an alternative better option for consideration. I do not entirely agree with this interpretation, because I think some of the things Miller says are genuinely dismissivist. For instance, she shows that some of the reasons which philosophers traditionally fight about in order to prefer *3D* over *4D* or vice versa are not good ones. In particular, she shows that there is no point discussing whether *3D* is more empirically evident than *4D*, whether *3D* is simpler than *4D*, whether *3D* is more explanatorily powerful than *4D*, because *3D* and *4D* are on a par in all these respects. If these points for discussion are taken away, the only thing left to debate is which theory explains change better. This is where Miller's account seems to stop being a form of dismissivism, but rather offers an alternative new view. In this respect Miller's and McCall-Lowe's works are similar, in that they both acknowledge the compatibility of *3D* and *4D*.

It should be clear from this that we cannot classify Miller's dismissivism as semanticism, because she would not subscribe to the appropriately modified definition of semanticism ([Bennett, 2009, p. 40]):

The dispute about whether there are temporal parts is purely verbal. The disputants assign different meanings to either the existential quantifier, the predicate "temporal part", or the negation operator, and are consequently just talking past each other.

According to Miller, this does not describe the reason why the *3D/4D* debate should be dismissed, nor the reason why they are inter-translatable. As I highlighted above, the reason why the debate is dismissed is the existence of part_{mb} , i.e. a metaphysical reason and not a semantic one.

The second step of Miller's dismissivist account is the completion of the proof of metaphysical equivalence, i.e. the proof of empirical equivalence, equal simplicity, and explanatorily equivalence. As stated above, I did not delve into details about how Miller shows these, but I can say that the proofs hinge on both linguistic and metaphysical factors. Miller argues that *3D* and *4D* are equally simple, empirically equivalent, and explanatorily equivalent. This may lead someone to argue that the second part of Miller's dismissivist strategy is an instance of epistemicism, since some aspects of Miller's strategy are evocative of Bennett's claim (e.g. the equal

level of simplicity of the two theories). Since *3D* and *4D* turn out to be on a par in a similar fashion to colocation and composition, then we lack justification to believe one or the other. However I do not think that Miller would accept Bennett's epistemicism. The reason is because according to epistemicism *3D* and *4D* are genuinely different views, but we are not in a position to find out which should be endorsed. Contrary to this according to Miller, *3D* and *4D* are *not* different views, and this is what shows that there is no reason for them to disagree. Since Miller does not fit semanticism, or epistemicism, or antirealism (I have not shown this but it looks clear enough), I think Miller's is another instance of an approach that escapes Bennett's trichotomy.

2.3. Hofweber-Velleman. I would now like to discuss [Hofweber and Velleman, 2010].¹⁶ They argue that *3D* and *4D* are logically consistent and compatible and the question is which things are three-dimensional and which are four-dimensional and not whether things in general are three-dimensional or four-dimensional. Their argument takes place in two steps and follows a rather different route from Miller and McCall-Lowe. The strategy is the following:

- first step: trying to answer the question 'is *3D* or *4D* correct?';
- they show *3D* is inconsistent, the question is answered;
- second step: two new theories are formulated, and a new question can be asked 'is *3D** or *4D** correct?';
- *3D** and *4D** are shown to be compatible, therefore the new question is not well formulated;
- a new question can be asked: 'which objects are three-dimensional* and which are four-dimensional*?.'

First of all Hofweber-Velleman formulate the distinction between *3D* and *4D* basing on the notion of temporal part. Respectively (pp. 2-3):

When an object is conceived as occupying an interval of time by being wholly present in each constituent moment, the object is said to *endure*.

When an object is conceived as occupying an interval of time by having temporal parts that occupy its constituent moments, the object is said to *perdure*.

Hofweber-Velleman then claim that the debate between three-dimensionalism and four-dimensionalism, stated in these terms, is 'pointless' ([Hofweber and Velleman, 2010, p. 4]) because one of the two positions, i.e. *3D* (endurantism), is a conceptual falsehood.¹⁷ This is the first step of their interpretative strategy. It is important to

¹⁶Hofweber and Velleman [2010] talk of endurance and perdurance, rather than *3D* and *4D*, respectively. As in the case of Miller, since I am going to discuss their paper out of methodological interest and focusing on the dismissivist features they display, there is no need for me to complicate matters and adopt their terminology.

¹⁷The argument is as follows (pp. 3-4): 'For a persisting entity to be wholly present at a single moment is just for it to have no proper temporal parts [...] then the object must have no corresponding parts, and so it must be temporally indivisible'. However, 'a temporally extended

note that they say that a debate between $3D$ and $4D$ formulated in these terms is ‘pointless’. This reminds us of Bennett’s claim that some disputes are a pointless waste of time and should thus be dismissed. From this however one should not draw the conclusion that Hofweber-Velleman’s argument at this stage is a way to dismiss the debate (in the sense of ‘dismiss’ pin pointed in chapter one). Rather, their argument shows that there is no debate going on because one of the two positions simply does not make sense.¹⁸ To sum up, Hofweber-Velleman answer the question: ‘is $3D$ or $4D$ correct?’ by showing that $4D$ is right and $3D$ is wrong. This offers a solution to the debate, rather than a way of dismissing it.

The second step for Hofweber-Velleman is to reformulate the distinction between $3D$ and $4D$, they write new definitions, which I will refer to as $3D^*$ and $4D^*$. Hofweber-Velleman argue that the new definitions they put forward resurrect the debate between the two positions in a new and interesting fashion (they call it ‘reconfiguring the debate’, p. 12). The new definitions of ‘being wholly present’, $3D^*$, and $4D^*$ are (p. 19):

“being wholly present”: An object o is *wholly present* at a time iff the identity of o is intrinsic to that time;¹⁹

$3D^*$: An object o *endures* over an interval I iff it is wholly present at each moment in I ;

$4D^*$: An object o *perdures* over an interval I iff it exists at each moment in I , but does not endure over I .

If $3D^*$ is right while $4D^*$ is wrong or vice-versa, we have the task of finding out which is right and which is wrong, thus trying to answer the question ‘is $3D^*$ or $4D^*$ right?’. This would parallel the first stage of their interpretation according to which the research question was ‘is $3D$ or $4D$ right?’.

object must be divisible into temporal parts, and this is a conceptual truth [...]; its being divisible into temporal parts is entailed by the divisibility of the interval it occupies into earlier and later’. (Note the similarity between this claim and Parsons’ ‘Analogy Thesis’). That the divisibility of a temporal interval into parts entails the divisibility of temporally extended objects into parts is the core of the argument for the inconsistency of $3D$. Since a temporally extended object must be divisible into temporal parts, according to the stated principle, the $3D$ thesis that objects are wholly present in each moment of their existence, without having parts, must be false. The reason why this is an argument that $3D$ is conceptually incoherent is because it violates what Hofweber-Velleman take to be a conceptual truth. Hofweber-Velleman argue that even if one is not convinced by this argument, one can still accept the new definition of $3D$ they put forward in the second part of their paper.

¹⁸We can recall that Sider [2001] follows a similar strategy as Hofweber-Velleman’s first step, in that Sider argues that $3D$ cannot even be formulated, therefore $4D$ stands as the only reasonable position.

¹⁹This means that ‘an object is wholly present at a time if its identity is determined at that time’ (ibid.). For instance, take a table at time t . We are in a position to determine whether it is a table at time t , we do not need to look at t_{-1} and t_{+1} to determine whether it is a table. On the other hand take a process such as writing a paper, if we consider it at time t we are not in a position to tell if that process is, e.g., the writing of a paper or the writing of one single bit of ink that is produced at t . In such a case we do need to look at t_{-1} and t_{+1} to determine which process it is.

However Hofweber-Velleman argue that it is not the case that $3D^*$ is right while $4D^*$ is wrong or vice-versa. They rather argue that $3D^*$ and $4D^*$ are not incompatible (p. 20):

There can be a coherent debate about [$3D^*$ and $4D^*$], but it should not be a debate about whether objects, as such, endure or perdure. Rather it should be a debate about which things [are three-dimensional*] and which things [are four-dimensional*].

They argue that there is a new question to be asked and thus a new debate. One should not ask whether things are in general three-dimensional or four-dimensional, but rather ask which things are three-dimensional* and which are four-dimensional*. The world is such that some objects are three-dimensional* and some are four-dimensional*. It is not the case that all objects have to be either one way or the other. The task is then to find out which objects fall into which category. This result dismisses the restored $3D^*$ - $4D^*$ debate, formulated in terms of: ‘is $3D^*$ or $4D^*$ right?’. If the ontological picture Hofweber-Velleman describe is right, the debate described in such a way does not make sense. It should be dismissed and substituted with the following question: ‘which objects are $3D^*$ and which are $4D^*$?’.

One might wonder whether their second strategy just described really is a dismissivist approach to the $3D$ - $4D$ debate. The debate seems to ask the question ‘is $3D^*$ or $4D^*$ right?’, but deeper analysis shows that the real question is ‘which objects are $3D^*$ and which are $4D^*$?’. Hofweber-Velleman argue that $3D^*$ and $4D^*$ are different *but* compatible views. This shows that their approach is not dismissivist, according to how I have been using the word in this thesis. Dismissivism starts from the incompatibility between the views at stake. This should also make clear that Hofweber-Velleman do not fit any of Bennett’s dismissivist attitudes. The reason for this is because Hofweber-Velleman take the two positions at stake to be compatible, thus contradicting Bennett’s very starting point, i.e. that the views at stake are not meant to be compatible.

Conclusion

To bring this chapter to a close I would like to address two questions which are very important for my project. First of all: how do the remarks presented in this chapter help answer the research question? Secondly: what is the significance of the differences highlighted between McCall-Lowe, Miller, Hofweber-Velleman and Bennett? The purpose of this chapter was to answer the first part of the research question i.e. explore how we dismiss debates about what there is. In particular, I decided to pursue this analysis using Bennett’s trichotomy as a guideline. I offered a list of examples of ways to dismiss a debate about what there is. I have explored whether Bennett’s three reasons to be a dismissivist are the only possible ones or not. The outcome of this discussion has been that neither McCall-Lowe, Miller, and Hofweber-Velleman dismiss their debates for the same reasons Bennett lists in

her paper. Although Bennett never claims explicitly that antirealism, semanticism, and epistemicism are the only three possible reasons (or types of reasons) to dismiss debates, Bennett's paper leaves the reader with the feeling that these reasons seem to cover the whole spectrum of possibilities. If we follow Bennett, a disagreement can be non genuine because the world is metaphysically indeterminate and thus some metaphysical claims are neither true nor false. Alternatively a disagreement can be non genuine because disputants use the same words with different meanings and thus disputants assign different truth values to a seemingly same claim, which actually means different things for them. Lastly, a disagreement can be non genuine because we cannot know which position is true and which is false. What else could go wrong when philosophers disagree? McCall and Lowe [2006], Miller [2005a], and Hofweber and Velleman [2010] highlight further complexities and facets to dismissivism in metaphysics. They describe more reasons (other than Bennett's) to consider an ontological disagreement to be non-genuine, and more ways to prove so.

Moreover this discussion gives me a chance to refine further the meaning of 'dismissivism'. At the end of chapter's one first section I sketched some details about how I am using the word in this thesis, but I here I can be more precise. So far I have been using the word 'dismissivism' in line with Bennett's work, i.e. to refer to situations where disputants hold incompatible views. On this assumption, McCall-Lowe, Miller, and Hofweber-Velleman are not dismissivist. The question then arises of what exactly they are doing if not dismissing the *3D-4D* debate. There are different ways to interpret their works, depending on how much importance one assigns to different aspects of their arguments. As I have discussed in this chapter, their approaches are many-faceted and display different features. Miller is the best example of it: her intertranslation is not strictly speaking a form of dismissivism, while the other part of her argument clearly is. McCall-Lowe is structurally similar to Miller in this respect. One option is to say that McCall-Lowe, Miller, and Hofweber-Velleman are not dismissivist, because they end up arguing that *3D* and *4D* are compatible views. If there is no disagreement between disputants, there cannot be dismissivism either, according to the way I would like to use the word in this thesis. On the other hand, some may feel inclined to relax the meaning of 'dismissivism', so that it would apply to these three authors as well.

Even though there might be disagreement about what the exact definition of dismissivism is, I do not want to delve into a (possibly verbal!) dispute about what 'dismissivism' means. I hope that this chapter managed to show not only the differences between these authors, but also their similarities. It should be apparent from what has been said that Bennett, Mc-Call-Lowe, Miller, and Hofweber-Velleman have something in common. It seems to me that they share what I could call a 'dismissivist vein'. They all think that there is something wrong with the disagreement disputants are or seem to be having, that it is not as deep as it looks like, or

as it is traditionally considered to be. They all try to explain why this happens, and offer new ways to interpret the debate.

On the other hand, an important difference between Bennett and Miller and Hofweber-Velleman concerns the future of debates generated by disagreements diagnosed as non genuine. Bennett's diagnosis of the composition and colocation case studies pushes in the direction of abandoning the discussion of the debate, in other words there is no hope to continue debating those topics. On the contrary, Miller and Hofweber-Velleman think that pointing out the issues of the original debate opens the door for improvements, and they suggest that instead of the original *3D-4D* dispute there is a different, deeper debate to be had.

CHAPTER 3

A case study: universals and tropes

Introduction

The question I asked at the beginning of this work is: what is the difference between the possible options available for dismissing debates about what there is, and what are the possible options available for dismissing debates about what grounds what? Chapter one clarified the general research background thanks to Bennett's work. Chapter two partly answered the research question through a detailed analysis of a debate mostly taken to be about what there is. I discussed a few different strategies to dismiss the *3D-4D* debate and this offered more insights about Bennett's project.

In this chapter I discuss a debate which is both about what there is and about what grounds what, i.e. the debate between universals and tropes ontologies. I describe what this debate is about and ask the question whether it can be dismissed. My approach is very different from chapter two. There I discussed three ready-made dismissivist strategies. On the contrary, here I work in a different way, exploring and testing different dismissivist strategies, without knowing in advance their output. This will prove interesting not only with respect to the claims for which I am arguing, but also for the methodology used, which shows another possible way to untangle a debate in order to find out whether it can be dismissed.

In particular I am going to break down the question whether the metaphysical debate between tropes and universals ontologies can be dismissed as follows:

- (i) Can it be dismissed for one of the reasons offered by Bennett [2009]? (section 4)
- (ii) Can it be dismissed for some other reasons (e.g. Hofweber and Velleman [2010]'s)? (section 5)
- (iii) If the debate can be dismissed, why is it so? If it cannot, why not? (section 4.4 and next chapter)

My aim in this chapter is not to argue that the debate can or cannot be dismissed. Here I mostly put all the options on the table. I already highlight which of them are hopeless, but it is only in the next chapter that I offer my final argument that there are reasons to think that the \mathcal{T} - \mathcal{U} debate should be dismissed.

At the end of this chapter I will have progressed in answering the research question because I will have started highlighting differences between existence and grounding with respect to dismissivism.

1. Why tropes and universals

In this section I clarify why I focus on this particular case study. Let us start with a discussion of what ‘nominalism’ means. According to [Rodriguez-Pereyra, 2011]:

In one sense, its most traditional sense deriving from the Middle Ages, [nominalism] implies the rejection of universals. In another, more modern but equally entrenched sense, it implies the rejection of abstract objects.

I am here focusing on the first variety of nominalism, and this is the reason why I am taking nominalism to be a rival to realism about universals. I refer to ‘realism about universals’ in this chapter as the doctrine that universals exist. From now on I will also use the word ‘nominalism’ to mean ‘nominalism about universals’. Nominalist and realist views about universals have been developed in different ways. In the previous chapter I focused on specific versions of *3D* and *4D*, and here I would like to do the same. This achieves two purposes: it clarifies what nominalism and realism amount to, and it allows me to deal with very precise definitions of opposing views, which helps bring out what really is at stake in the debate between nominalism and realism. What is at stake in the debate, generally speaking, is the existence of certain things (universals, tropes, particulars). Nominalism, in all its varieties, argues that universals do not exist, while realism argues that they do. The debate, presented in such a way, is too underdescribed to be analysed. What I mean is that in such general terms the two views are too underdescribed to play them against one another. The analysis will be more interesting if I choose one version of realism and one version of nominalism. Such versions have precise definitions which I can compare in detail.

There are many versions of nominalism, e.g. tropes theories, predicate nominalism, concept nominalism, mereological nominalism, class nominalism, and resemblance nominalism. On the other hand, realism about universals has been mostly developed in two fashions, i.e. *ante rem* realism, and *in re* realism. Universals, broadly speaking, are ‘repeatable entities, wholly present wherever a particular instantiates them’ ([Lewis, 1983b, p. 343]). According to *ante rem* realism, universals exist separately from their instances, while according to *in re* realism universals are wholly present only in the things that instantiate them and not separately from them as well.

In the nominalist area I will discuss tropes theories, and in the realist area I will discuss *in re* versions. The reason for this choice is that these views are particularly representative of the field they belong to, as Armstrong [1997, p. 22] highlights:

In my view, the last battle between Nominalism and realism (the Grand Final) should be fought between trope theories (of various sub-types) and Aristotelian realists¹ (also of various sub-types).

¹A *moderate* or Aristotelian realist holds that universals exist only in particulars, with the word ‘in’ subject to interpretation’ (*ibid.*). Armstrong also explicitly takes his own realism to be of the Aristotelian type (*ibid.*).

I would like to be even more specific about the choice of tropes theory I am going to make, since tropes theories have been developed in significantly different ways. I am going to focus on bundle theories of tropes, firstly because they have received a lot of attention in the literature, and secondly because they are developed in such a way to highlight interesting contrasts with *in re* universalism. This choice will importantly influence my remarks about how to dismiss the debate between tropes theories and universalism and I will try where possible to show how the choice of a non-bundle theory of tropes would affect such remarks. From now on, when I speak of \mathcal{T} I will have in mind bundle ontologies that postulate the existence of tropes, and when I speak of \mathcal{U} I will have in mind ontologies that postulate the existence of *in re* universals.

The reason for this choice is that I cannot discuss the debate between all the possible versions of nominalism and realism, as it would take too much space and we would lose track of the main focus of this chapter, i.e. the inquiry whether some debate in this field can be dismissed, and if yes, why and how. This choice will be narrowed down even further at the end of section 3.3, where I will define \mathcal{T} and \mathcal{U} more carefully. Nonetheless at various times in this chapter it will be important to talk about other versions of \mathcal{T} and \mathcal{U} , for two reasons. First of all, highlighting differences between my chosen versions and others will allow me to be really precise about the features my chosen versions have (see in particular section 3, p. 53). Secondly, I will show how some of the remarks I make apply both to my versions and to others, in order to provide more examples which will clarify some of the points I will make (see especially section 4.3, p. 75).

The second reason why I decided to discuss the \mathcal{T} - \mathcal{U} debate rather than any other debate in the realism-nominalism wider debate is because there is an explicit parallelism between \mathcal{T} - \mathcal{U} and the 3D-4D debate. This parallelism makes a comparison between the two debates interesting and worth discussing (see chapter four). The parallelism I am talking about has been highlighted by Lewis [1986, p. 202], when he discusses the issue of temporary intrinsics:

Endurance corresponds to the way a universal, if there are such things, would be wholly present wherever and whenever it is instantiated. Endurance involves overlap: the content of two different times has the enduring thing as a common part. Perdurantism does not.

Let us spell the analogy out. In the case of endurance, the ‘common part’ is the enduring thing, wholly present at each time in which it exists. This explains how something can change and persist through time while retaining its identity. In the case of universals, the ‘common part’ is the universal which is wholly present in each object that instantiates it. This explains how two different things can have the same property, i.e. by sharing a common part. Different objects that have the same property literally have a part in common, i.e. the universal. The similarity

between enduring things and universals is thus that they can both be wholly present in more than one place and at more than one time. Another analogy between enduring things and universals is that they are both common parts of something. As enduring things are common parts of more than one time, universals are common parts of more than one object.

On the other hand, Lewis says that perdurance does not involve overlap in the way endurance does. This means that different times do not share any common parts, because different things are present at different times. We can now highlight the analogy between perdurance and tropes theories. In the case of tropes, different objects are made up of different tropes, i.e. they do not have any tropes in common. Tropes are thus similar to temporal parts in that neither of them is present at more than one time or in more than one place and they are not shared amongst different things or different times.

Ehring [2011] highlights more explicitly the similarity between momentary tropes and temporal parts. He points the analogy out when he discusses the problem of temporary intrinsics, which is the same issue that triggers Lewis' remark just discussed (pp. 69-70):

Suppose that tropes are momentary, and, thus, not able to be wholly present at more than one wholly distinct time. [...] One consequence of the momentary trope view [...] is that this makes tropes analogous to the temporal parts of concrete objects, if there are such. Recall that the temporal parts proponent claims that objects have temporal parts, as well as spatial parts, and that persistence is a matter of an object having different parts present at different time periods. Just as some temporal parts of objects are or may be momentary particulars, tropes will be momentary (abstract) particulars.

This quote highlights more than Lewis' does that tropes are momentary. Tropes and temporal parts are analogous in the sense that they are both instantaneous. I will delve more into the analysis of similarities and differences between *3D-4D* and *T-U* in the next chapter (see section 1, p. 93).

I close this introductory section with a methodological remark. One might notice that in the previous chapter I discussed two opposing views at a time. In the *3D-4D* case my analysis was always about two opposing views (i.e. some version of *3D* against some version of *4D*). Moreover, in both Bennett's case studies two views were at stake (nihilists against believers in composition, and one-thingers against multi-thingers in the constitution case). Since in this chapter I have selected two views to discuss as well, this legitimately raises a question as to whether, in order to check if a debate can be dismissed, a debate must involve only two opposing views. I do not think there are any reasons why it should involve only two views. Bennett never argues that her dismissivist strategy works if only two views are involved

either. Furthermore, nothing in what she says seems to push into that direction. For instance, her strategy to prove that a debate is difference minimizing does not require that only two views are at stake, because all she does is play the views' arguments against one another, comparing them, and highlighting their analogies and differences. If there are three views at stake, rather than one, the same strategy can be applied. It may take longer and it may be more complex, but the strategy's methodology can be the same. This means that there is no methodological or in principle reason why I am discussing only two views, rather than three or four. It simply is a matter of space. I think that the comparison of bundle theories of tropes with *in re* realism will be representative enough for the purpose I set at the beginning of this chapter.

2. What the debate is about

The purpose of this section is briefly sketching the two positions at stake, i.e. tropes and universals ontologies. If we want to know whether the debate can be dismissed, we first of all need to understand what the debate is about. It is important to highlight that tropes and universals theories both aim to answer (at least some of, and possibly more than) the following questions:

- (1) How is an *F*-thing an *F*? E.g., how is this cat a cat? How do things have properties? E.g., how is this table red? What makes the table red?
- (2) What are laws of nature? What is the difference between accidental generalizations and lawlike ones?
- (3) What are properties?
- (4) What is there?
- (5) What grounds what? What is fundamentally the case?
- (6) Why do laymen say the things they do? Why are laymen's claims about objects true/false? Are laymen's claims accurate?
- (7) Why do things resemble or differ from one another?
- (8) How can the 'many over one' problem be solved? This is, in the definition of [Rodriguez-Pereyra, 2000, p. 256], 'the problem of showing how *numerically different* particulars can have the *same* properties, as when white particulars share the property of *being white*.'²

Tropes ontologies hold that there are such things as tropes, and that tropes are the alphabet of being (see [Williams, 1953, p. 7]). In other words, according to \mathcal{T} , tropes are the only fundamental constituents of reality. Tropes are abstract

²The list could be longer. In order to expand it, we could follow [Lewis, 1983b]'s suggestion. In this paper Lewis addresses the question whether one should countenance universals in one's ontology, alongside with properties (i.e. 'classes of things' p. 344). In order to find out the answer he explores the following topics: duplication, supervenience, divergent worlds, materialism, laws, causation, content of language and thought (*ibid.*). For my project the idea would then be to see how tropes and universals explain and solve problems in these areas. However most of these topics, especially divergent worlds, duplication, and materialism bring us very far from the central topic of this chapter and do not add anything to the metaontological remarks I want to make about the \mathcal{T} - \mathcal{U} debate. This is the reason why in what follows I focus only on the points mentioned in the list above.

particulars. Tropes are particular in that they cannot be instantiated more than one time, or in more than one place (to clarify this see below the quotation by [Rodriguez-Pereyra, 2011] on p. 50 of this work). They are individual, specific properties and they cannot be shared amongst different objects. Tropes are abstract and they are properties of the thing that has them, such as ‘this redness’, or ‘this chairness’. Each thing is composed of (possibly infinitely many) tropes, which are all its properties. In other words, things are bundles of tropes, glued together by a relation of compresence (which is defined in different ways in the literature). For instance, a chair possesses the tropes of its specific weight, its specific shade of color, and its specific chair-shape (and many other tropes, according to some, such as the trope of not being a tiger).³ General properties, such as redness or tablehood, are defined as resemblance classes of tropes, where resemblance may be defined as a relation between tropes.⁴

Universals ontologies hold that there are such things as universals and concrete particulars. Universals and particulars are the fundamental constituents of reality. Universals are properties, such as ‘redness’, or ‘being a chair’. Universals can be instantiated in more than one particular. They are wholly present in each particular in which they are instantiated. This means that a universal can be multiply located, at different places and times. Universals and particulars⁵ are connected by means of a relation. This relation is defined in different ways in the literature (instantiation, emanation, participation, ...). It is interesting to note that according to *in re* realism, which is the version I am focusing on here, universals are not abstract, but rather concrete. *In re* realism rather argues that universals are wholly present in each of their instantiations, and since their instantiations are concrete, universals are concrete as well.

This might strike as puzzling at first. When trying to understand the difference between universals and particulars, the first intuition is to think of universals as abstract and particulars as concrete. Universals indeed fail to display properties that are typically thought to be the mark of concrete objects, e.g. no concrete objects can be multiply located at a single time. However only *ante rem* realism holds that universals are abstract. The difference between *in re* universals and particulars should thus be understood as follows ([Rodriguez-Pereyra, 2011]):

The distinction can be drawn in terms of a relation of instantiation: we can say that something is a universal if and only if it can be instantiated by more than one entity (whether it can be instantiated by particulars or universals) - otherwise it is a particular. Thus while both particulars and universals can instantiate entities, only universals can be instantiated. If whiteness is

³Some argue that there are negative tropes. For a defense of the view see [Bacon, 1995, p. 99]. For more on the topic see [Ehring, 1997] (esp. pp. 150 ff.).

⁴The relations of compresence and resemblance are problematic, but I am leaving this aside here.

⁵Some take particulars to be concrete, others abstract. See p. 62.

a universal then every white thing is an instance of it. But the things that are white, e.g. Socrates, cannot have any instances.

I will explore the consequences of these remarks when I turn to the analysis of \mathcal{T} 's and \mathcal{U} 's ontological commitments, in section 3.

Let us now see with examples how \mathcal{T} and \mathcal{U} deal with some of the issues I mentioned in the list above.⁶

1 - How is an F -thing an F ? According to \mathcal{T} , an F -thing is such in virtue of having the trope of being-an- F . For instance a cat is such because it has the trope of being-a-cat. A cat is brown in virtue of having a trope of this-brown-shade. The cat is a bundle of all the tropes he has (i.e. of all the properties he has).

On the other hand, according to \mathcal{U} , an F -thing is such in virtue of being a particular instantiating the universal F , or F -ness. For instance, a cat is such because it is a particular instantiating the universal of cat-hood. Moreover it is brown in virtue of instantiating the universal of brownness.⁷

2 - Laws of nature. I am not going to discuss laws of nature, since an extensive discussion of how tropes and universals theories account for laws of nature falls out of the scope of this chapter (but I will touch on the issue on p. 73).

3 - What are properties? 7 - Resemblance. According to \mathcal{T} , properties are resemblance classes of tropes. The reason for this is because some tropes resemble each other. For instance, all the tropes of being-brown resemble each other. They can thus be grouped together on the basis of their exact similarity. This explains ordinary judgments such as, 'These two books have the same color' (say brown). According to tropes theories, this is not literally true. The two books do not have the same trope, because tropes cannot be shared. Each book has an unrepeatable trope of being-brown. They are two different tropes. Each of them belongs to that object and no other object. However the two tropes exactly resemble one another, and this is what triggers such utterance.

According to \mathcal{U} , properties are universals. An utterance such as, 'These two books have the same color' (say brown) is thus explained as follows. Both books instantiate the same universal, i.e. brownness. The same universal is wholly present in both objects.

4 - What is there? 5 - What grounds what? What is fundamentally the case? The notion of fundamentality, and its cognates such as grounding or dependence, has been widely discussed in the literature (e.g. [Lowe, 2010] and more recently [Correia and Schnieder, 2012]). I will delve into fine-grained distinctions in the next chapter. At this stage I am not offering definitions of grounding and fundamentality, because it does not matter for the purpose of this chapter. In this chapter the reader can go with his favorite definition of grounding. When I say 'fundamental'

⁶I am here considering generic versions of \mathcal{T} and \mathcal{U} , for the sake of clarifying the most important features of each. More detailed distinctions will be made in section 3.

⁷Other versions of \mathcal{U} are possible, where universals are not linked to particulars by instantiation, or where particulars are bundles of universals. More details are provided in section 3.3.

I always refer to relative fundamentality in this chapter, i.e. ‘ x is fundamental iff it grounds something else’. I leave it open whether something grounds x or not. More precise definitions of grounding and fundamentality will be introduced in the next chapter (see section 2, p. 106).

According to \mathcal{T} tropes are the fundamental constituents of reality. Here we can draw an important difference between bundle theories of tropes, the ones I am focusing on, and substratum theories of tropes. The difference is well described by Benovsky [2008, p. 175]:

The substratum theory [holds that] there are particulars [(or substratum)] and there are their properties [...] particulars [have their] identity independently of the properties [...] An object like a table [is] made out of two different kinds of components: properties and a substratum. [...] The bundle theory denies the existence and the need for a substratum: as fundamental components of reality, there are only properties.

According to substratum theories of tropes⁸ there are two kinds of entities, which are both taken to be fundamental, i.e. the substratum and tropes. On the other hand according to bundle theories of tropes - one can replace tropes with anything else that plays the role of properties - only tropes exist and are fundamental. For instance Campbell and Williams argue in favor of bundle theories of tropes. Ehring [2011, p. 12] describes what a bundle theory is:

On a Bundle Theory, there is no substratum/thin particular. Each concrete object is a bundle of its properties [...] The properties of the same object are mutually compresent. They do not inhere in a non-property substratum. [...] For the Trope Bundle theorist, a concrete object is a bundle of tropes without any substratum.

According to \mathcal{U} universals and particulars are the fundamental constituents of reality. However here views diverge amongst realists. For instance, Armstrong [1997] holds that universals and particulars are the constituents of states of affairs. The question for him is then what the ontological status of states of affairs is (whose answer is irrelevant for me at the moment).

6 - Laymen. According to \mathcal{T} , the common sentence structure of noun-verb-predicate is misleading if one is inclined to think that the structure of reality is reflected in the structure of the sentence. Language contains words such as ‘brown’, which in ordinary language refers to the generic property of being brown. Tropes are however non-repeatable entities, and language does not accurately mirror this,

⁸The distinction between substratum and properties can be developed within different ontologies. This means that as there as substratum theories of tropes, where properties are tropes, there are also substratum theories of universals, where the role of properties is played by universals. I will go back to this later on in section 4.3, p. 75.

because it does not have a different word referring to each different trope. This is why a claim like ‘Both books are red’ is accurate for the purposes of everyday communication but is not true in the ontology room, and may lead some to think that the same trope of redness occurs in both books. Rather, for the purposes of precise metaphysical discussion it is more accurate to say: ‘This book has its own red trope and that book has its own red trope, and the two tropes resemble each other’.

According to \mathcal{U} laymen’s claims are more accurate than the trope theorist thinks. The grammatical structure of ordinary sentences matches with the structure of reality. As in language there is a noun and a verb linked by a predicate, the universals ontology says there is a particular that instantiates a universal. Nouns are particulars and predicates are universals. This creates a parallel between ontology and grammar in claims like ‘Both books are red’. Grammatically, red is predicated of both books, as metaphysically the same universal is instantiated in two particulars.

8 - The many over one. According to \mathcal{T} different individuals, which a tropist would take to be concrete particulars, can have the same property because concrete particulars are bundles of compresent tropes. Some of these tropes resemble one another, thus different bundles have tropes that resemble one another.

According to \mathcal{U} different individuals, i.e. concrete particulars, can have the same property because they can instantiate the same universal at the same time.

3. Differences between \mathcal{T} and \mathcal{U}

Now that I have clarified what the debate is about, I turn my focus to three main topics where \mathcal{U} and \mathcal{T} differ: ontological commitments, grounding and fundamentality, abstract and concrete. I describe in details how the two views differ in these respects.

The reason why I do this is because the analysis and comparison between the two views at stake helps us to understand whether the debate can be dismissed or not. I explore similarities and differences between the two views, because this will help in highlighting where the potential for dismissivist objections may arise and, on the contrary, which features of this debate may discourage dismissivist attempts. For instance if it turns out \mathcal{U} and \mathcal{T} are talking past each other, or are equally simple, or have the same ontological commitments, these all may be reasons to dismiss the debate (or to suspect the debate should be dismissed). On the other hand, if it turns out that \mathcal{U} and \mathcal{T} are not talking past each other, that they have genuinely different ontological commitments, and one of them is simpler than the other, these may be reasons to feel discouraged about the possibility of dismissing the debate. Moreover it may turn out that it simply is not possible to assess one of these issues, e.g. that there may not be any method to find out which theory is simpler. If this is the case, we need to think about whether such a lack pushes in the direction of dismissivism or the other way around. My analysis does not start

from the assumption that the debate is in fact dismissable. Rather, it is open to the possibility that the debate has a genuine solution, i.e. one of \mathcal{U} and \mathcal{T} is wrong and the other is right.

By the end of this section I will have a clear list of similarities and differences between \mathcal{U} and \mathcal{T} in the three respects listed above. In what follows I will talk not only about the differences between \mathcal{U} (substance-attribute theory of universals) and \mathcal{T} (bundle theory of tropes), but also about substance-attribute theories of tropes ($ST\mathcal{T}$, from now on).⁹ Lastly, I would like to highlight that my main purpose here is to compare \mathcal{U} with \mathcal{T} , thus I will present remarks about $ST\mathcal{T}$ only when I think this helps bring to light important distinctions. The purpose is not to compare $ST\mathcal{T}$ with \mathcal{U} or with \mathcal{T} . I will use these results in sections 4, 5, and 4.4, where I will run a full analysis of how the debate can be dismissed.

A worry may be raised here, because I have chosen very specific versions of \mathcal{U} and \mathcal{T} . Some may endorse the following:

(G) results from the analysis of the \mathcal{T} - \mathcal{U} debate cannot be generalised,

and consequently argue that whatever consequence I draw from the analysis of the debate about the dismissability of the debate itself is going to hold only for this specific debate and will have no general validity. This is problematic for my project because I aim to find something general to say about how to dismiss debates about what there is and about what grounds what. If my hypothetical opponent is right that whatever I find out about the \mathcal{T} - \mathcal{U} debate does not generalise to other debates about what there is and what grounds what, it would seem that I have chosen the wrong research method, or I am asking the wrong question.

I do not think this is a worrisome problem for two reasons. First of all, I have argued, with Armstrong, that this debate has been chosen because it features the two most important views in this area. Even if the result I obtain is valid only for this debate, this would still be a relevant result (although possibly not a direct answer to my research question). Moreover, some of the features of \mathcal{U} and \mathcal{T} I am going to focus on (such as the commitment to both abstract and concrete entities and the role the notion of grounding plays) can be found in other metaphysical debates as well, and it may be the case that if one of these features has a certain metaontological consequence for \mathcal{U} and \mathcal{T} , it will have a similar consequence for other debates where such a feature plays a similar role. It is thus possible to claim against (G) that:

(E) If a feature of a debate, such as the notion of grounding, plays an explanatory role in that debate, it may be the case that such explanatory role is carried over to other debates which use the same notion.

(G) and (E) are both strong claims and it is important to clarify what I want to endorse. I am not arguing for (E), and I will run an argument against it in the

⁹The expression ' $ST\mathcal{T}$ ' will only refer to substance-attribute theories of tropes in what follows. When I talk about substance-attribute theories of universals I will simply say \mathcal{U} .

next chapter, showing that it is false. I am not endorsing (G) either, however I have not presented an argument that (G) is false. In this chapter I prefer to leave the door open to the possibility that results obtained from the analysis of this debate may be generalized to other debates with similar features. However, the truth or falsity of (G) does not affect any of the arguments I am going to run here. I am thus neutral on the issue in this chapter. The validity of (G) will become more pressing in the next chapter, where it will receive a lengthy discussion (see chapter four, p. 93 and subsequent ones of this work). In the next chapter I will be able to circumvent the objection raised here, showing that there are some general reasons to dismiss all debates about what grounds what (including the \mathcal{T} - \mathcal{U} debate).

3.1. Ontological commitments. I turn now to discuss \mathcal{T} and \mathcal{U} 's ontological commitments. I am interested in seeing whether \mathcal{T} and \mathcal{U} share at least some ontological commitments or not. \mathcal{T} claims that universals do not exist, while concrete particulars and tropes do exist. By 'concrete particulars' I refer to what Armstrong calls thick particulars, i.e. 'a particular taken along with all and only the particular's non-relational properties' ([Armstrong, 1997, p. 124]), such as chairs and tables. Tropes play the explanatory roles required by the list on p. 49 of this work.

On the other hand \mathcal{U} claims tropes do not exist, while universals, thin particulars, concrete particulars exist, and universals play the explanatory roles listed above. A thin particular¹⁰ is a concrete particular without any properties. In other words, according to Armstrong [1997, p. 123], a thin particular is a:

particular in abstraction from its properties. By 'abstraction'¹¹ here all that is meant is that by a mental act of 'partial consideration' (Locke) we consider the particular only in so far as it is a particular, we consider it only in its particularity [...]

$ST\mathcal{T}$ claims that tropes, thin particulars, and concrete particulars exist. It thus seems that \mathcal{U} , \mathcal{T} , and $ST\mathcal{T}$ all share the ontological commitment to the existence of concrete particulars. Moreover $ST\mathcal{T}$ and \mathcal{U} share the ontological commitment to thin particulars.

About the ontological difference between \mathcal{U} and \mathcal{T} , one could argue that even though \mathcal{U} rejects the existence of tropes, this does not necessarily amount to the rejection of abstract particulars in general. Maybe \mathcal{U} can accept the existence of some abstract particulars as long as they are not tropes. This is an interesting suggestion which raises some further questions, such as: can there be abstract particulars which are not tropes? Can abstract particulars play some role in \mathcal{U} ? Answering these questions would bring us too far away from the scope of the chapter, however

¹⁰ A thin particular is sometimes referred to as a bare particular, or a substance. I will stick to the term 'thin particular'. It is thin particulars which 'carry' the properties. When considered together with their properties thin particulars become thick or concrete particulars, i.e. ordinary objects (chairs, tables, ...). Metaphysically speaking a concrete particular is a bare particular with properties attached to it.

¹¹More on different meanings of abstract in section 3.3.

I can address this very issue from the tropes theory point of view, which is quicker. \mathcal{T} does not only reject the existence of universals as they are in some specific theory (Armstrong's or someone else's). \mathcal{T} rejects the existence of anything that is not particular, no matter how it is described, defined, and no matter which purpose it serves. So even if \mathcal{U} could maybe encompass both types of entities, \mathcal{T} cannot (I am going to say more about this at the beginning of section 5, p. 85).

3.2. Grounding and fundamentality. Remarks in the previous section show that some ontological commitment is shared between the various theories I am discussing. However there is a crucial difference between the ontological commitments of each view, because \mathcal{U} , \mathcal{T} , and \mathcal{STT} make different claims about what grounds what. It is important to distinguish between two debates: one is about what grounds what, and the other one is about what is absolutely fundamental. If two parties disagree about what grounds what then they also disagree about what is absolutely fundamental. On the other hand a disagreement about what is fundamental does not necessarily lead to a disagreement about what grounds what. What I am going to focus on are the differences in what is taken to ground what in each theory I am analysing. The debate about what is fundamental is interesting when we consider different versions of \mathcal{T} and \mathcal{U} , which agree about what grounds what but disagree about what kind of fundamentality the grounding entities enjoy. For instance, one version of \mathcal{T} may maintain that tropes ground concrete particulars but it is left open that something grounds them, while another version of \mathcal{T} may maintain that tropes not only ground concrete particulars but are also ungrounded. I am not going to focus on this level of the debate, because it does not help pursue the purpose of this chapter.

Let us start by looking at some examples taken from each view. Williams [1953, pp. 6-7] endorses a bundle theory of tropes (my emphases):

I propose now that entities like our fine parts or abstract components [i.e. tropes] are the *primary* constituents of this or any possible world, the very alphabet of being. They not only are actual but are *the only actualities*, in just this sense, that whereas entities of all other categories are literally composed of them, they are not in general composed of any other sort of entity.

From this passage it seems to me that Williams takes tropes as fundamental, while particulars, even though they exist, are not fundamental.

On the other hand \mathcal{STT} is endorsed by some versions of Resemblance Object Nominalism and of Natural Class Object Nominalism, amongst others (although substance-attribute theories do not need to endorse the existence of tropes, I am focusing on this particular case). Ehring [2011, p. 11] describes \mathcal{STT} as follows:

On Substance-Attribute theories, [...] if properties are tropes, the attributes are tropes.

And Benovsky [2008, p. 177] says:

To make up objects \mathcal{STT} uses properties and a bearer of properties.

From these quotes it emerges that according to \mathcal{T} concrete particulars exist but they do not ground anything else, while tropes exist and ground everything else that exists. The major contemporary supporter of \mathcal{U} , David Armstrong, argues for a peculiar version of it, according to which states of affairs ground everything else, and states of affairs are composed of particulars and universals. Simpler versions of \mathcal{U} , such as the ones considered here, maintain that particulars and universals exist and ground everything else that exists. Lastly, according to \mathcal{STT} , concrete particulars are thin particulars plus tropes, which specify their properties. According to this version there are two fundamental entities, i.e. tropes and thin particulars. In this respect, \mathcal{STT} is more similar to \mathcal{U} than \mathcal{T} is, because it postulates two fundamental entities, as \mathcal{U} does. Moreover \mathcal{STT} and \mathcal{U} both share the commitment to the fundamental existence of thin particulars. \mathcal{T} and \mathcal{U} do not share any ontological commitments about what is fundamental. They only agree that particulars exist. On the other hand \mathcal{STT} and \mathcal{U} share the ontological commitment to thin particulars and agree that thin particulars are fundamental. They only disagree about the nature of particulars, in that the former argues that they are composed of tropes, while the latter argues that they instantiate universals.¹²

I do not want to delve into which option is more successful, or less problematic. The reason why I highlighted the difference between bundle theories of tropes and substance-attribute theories of tropes is to note that the choice of theory has an effect on similarities and differences between competing theories, and this in turn may have consequences for the metaontological remarks one can make. I will clarify the consequences of all this on dismissivism in section 4.4 of this chapter (focusing only on \mathcal{T} - \mathcal{U} and disregarding \mathcal{STT}).

3.3. Abstract and concrete. I have stated that tropes and *ante rem* universals are both abstract. However I have not defined what ‘abstract’ means. It is very important to clarify what ‘abstract’ means, not only to understand properly what universals and tropes theories are claiming, but also to check whether ‘abstract’ means the same in the mouth of the tropist and in the mouth of the *ante rem* universalist. One may think this topic falls out of the metaontological purpose of this chapter, but actually a proper understanding of which abstract entities each

¹²Some may ask also the following question: Can we articulate the distinction between \mathcal{U} and \mathcal{T} without appeal to grounding? This is an interesting question. It is certainly possible to understand the difference between \mathcal{U} and \mathcal{T} without using the notion of grounding, it is enough to look at their respective ontological commitments. However the reason why the notion of grounding plays a role in this debate is not to spell out the differences between the two views, but rather to answer the important metaphysical question of what grounds what. Trying to spell out \mathcal{U} and \mathcal{T} without the notion of grounding would prevent \mathcal{U} and \mathcal{T} from answering this question.

view postulates is relevant to dismissivism because it may be the case that the specific commitments of each view, in this respect, make it easier (or more difficult) to deflate the debate. Delving into these details will prove useful in section 6 when I will discuss the metaontological consequences of the differences between \mathcal{T} and \mathcal{U} . Here I simply highlight the commitments of each view.

Campbell [1990, pp. 3-4] claims that tropes are abstract in the following sense:

The color of this pea, [...] the solidity of this bell, are abstract in this sense only: that they (ordinarily) occur in conjunction with many other instances of qualities (all the other features of the pea, [...] or the bell), and that, therefore, they can be *brought before the mind* only by a process of selection, of systematic setting aside, of these other qualities of which we are aware. Such an act of selective ignoring is an act of abstraction. Its result is that we have before the mind an item which (as a matter of fact, in general) occurs in company with others. But the pea's color, [...] the bell's solidity, are not in any sense products of the discriminating mind. They exist out there, waiting to be recognized for the independent, individual items, that they have been all along. For Williams, and for us following his usage, abstract does not imply indefinite, or purely theoretical. Most importantly, it does not imply that what is abstract is non-spatio-temporal. The solidity of this bell, here and now, is a definite, experienceable and locatable reality. [...] Abstract here contrasts with concrete: a concrete entity is the totality of the being to be found where our colors, [...] or solidities are. The pea is concrete; it monopolizes its location.

Lewis [1986] outlines four different possible ways to distinguish between what is concrete and what is abstract (pp. 83-85):¹³

The Way of Conflation: the distinction between concrete and abstract entities is just the distinction between individuals and sets, or between particular individuals and everything else. [...]
 The Negative Way: abstract entities have no spatiotemporal location; they do not enter into causal interaction. [...]
 The Way of Abstraction: abstract entities are abstractions from

¹³I here mention only the last three options, the first one is (p. 82):

the Way of Example: concrete entities are things like donkeys and puddles and protons and stars, whereas abstract entities are things like numbers. That gives us very little guidance.

Lewis quickly dismisses this way to characterize the difference between abstract and concrete objects, because it is not very explanatory. It will be clear from the discussion of the other three Lewisian 'ways', that the way of example does not help understand how tropes and universals ontologies use the word 'abstract'.

concrete entities. They result from somehow subtracting specificity, so that an incomplete description of the original concrete entity would be a complete description of the abstraction.¹⁴

In Campbell's description of why tropes are abstract, the word 'abstract' is used differently from the *Way of Conflation*. The *Way of Conflation* holds that concrete entities are particular individuals and everything that is not a particular individual is abstract. Campbell's view does not fit this characterization, because tropes are abstract and particular at the same time. In Campbell's description of why tropes are abstract, the word 'abstract' does not have the same meaning it has in the *Negative Way* either. Tropes do have a spatiotemporal location (i.e. the spatiotemporal location of the thing they are a property of), and they enter into causal interaction (they interact with other tropes) - yet they are abstract.

It seems that Campbell's use of the word 'abstract' fits best with Lewis' *Way of Abstraction*. The way of abstraction holds that an abstract entity is an abstraction from concrete entities. Campbell makes a similar claim when he says that a pea's color is abstracted from the pea (a concrete entity), i.e. 'brought before the mind'. Lewis' claim that an abstract entity results from 'subtracting specificity' is similar to Campbell's claim that abstraction is the process of 'setting aside, an act of selective ignoring'. In order to abstract the pea's trope of being-this-shade-of-green, we need to ignore its mass, its shape, its weight, its consistency, . . .

There are other reasons to regard tropes as abstract in the sense just specified. One is that tropes are not microscopic pieces of the objects they belong to, as atoms are. Take a blue wooden chair. It is not the case that we can cut the blue (or wood) trope out and exhibit it, even if we had a small enough knife. We cannot even point to the blue trope saying 'there it is, the blue trope'. Tropes are not spatially distributed in the objects one next to another, or one on top of the other, because they are not concrete, in the sense of not being made of matter. This is why Campbell talks about the abstraction process of the mind. When I list the tropes a thing has I am not simply pointing to physical properties of that thing, but rather selecting (individuating, abstracting) the properties of it I want to highlight.

One might question my interpretation by highlighting that Campbell explicitly says 'it does not imply that what is abstract is non-spatio-temporal. The solidity of this bell, here and now, is a definite, experienceable and locatable reality'. This seems to contradict my claim that tropes are not made of matter. However I would like to draw attention to the following statement: 'a concrete entity is the totality of the being to be found [where its properties are]'. From this it seems that concreteness emerges when the whole bundle of tropes is present.¹⁵ Tropes, taken

¹⁴Compare this with Armstrong's quotation on p. 55 of this work.

¹⁵Campbell [1981, p. 479] reinforces my interpretation of [Campbell, 1990] when he says:

we must overcome a long-standing [. . .] prejudice to the effect that *concrete* particulars, atoms or molecules or larger swarms, are the minimal beings logically capable of independent existence [. . .] as a matter of fact, tropes tend to come in clusters and a substantial collection of them, clinging together in a clump, is the normal minimum which we do in fact encounter [. . .] The

individually, are physically spatially located where the bundle is, but still they are abstract because we can individuate each of them only by an act of abstraction, and not by an act of cutting them up or ostension. The trope of a bell's solidity is concrete when it is considered in and together with the totality of the bundle it belongs to.¹⁶

I do not think *ante rem* realism holds that universals are abstract in the same sense as Campbell or the way of abstraction. I think *ante rem* realism holds rather that universals are abstract in the sense the way of conflation specifies, i.e. universals are abstract because they are not particulars. A further reason why *ante rem* universals are abstract is that they are not spatiotemporally located, only their instantiations are. Moreover *ante rem* universals may also be thought of as abstracted from the things they are instantiated in. However, in addition to being abstracted they also are not spatiotemporally located, and this is the crucial feature that differentiates them from *in re* universals.

It is trickier to think whether there is any sense in which *in re* universals can be regarded as abstract. As I said, some proponents of *in re* universals argue that they are concrete, because their instantiations are, and because they do not exist independently of their instantiations. The reason why they are concrete is thus that *in re* universals simply *are* their instantiations. Their being present at more than one place and more than one time does not lessen their concreteness. However, further reflection seems to lead to the conclusion that *in re* universals are abstracted from particulars as the way of abstraction specifies. In front of a red chair, a red book, and a red hat we can abstract from the fact that these three things are, respectively, a chair, a book, and a hat, and from the different shapes, weights, densities they have, and focus only on their color, thus abstracting the universal of redness. Armstrong [1997, pp. 28-29] supports this view:

question at issue, however, is not what is in fact the ordinary minimum in what is "apt for being", but what that minimum is of metaphysical necessity [...] All Williams requires [...] is that dissociated tropes be possible (capable of independent existence). So the possibility of a Cheshire Cat face, as areas of color, or a massless, inert, impenetrable zone as a solidity trope, or free-floating sounds and smells, are sufficient to carry the point [...]

In this passage Campbell explicitly says that individual, non concrete tropes are possible.

¹⁶Bacon [1995, p. 10] agrees with Campbell and Williams that tropes are abstract in the sense just described:

With Williams, I take individual objects, properties, and relations to be metaphysical constructions out of tropes. By this I mean that objects and properties are made up of tropes, but not necessarily in the same way that armies are made up of tropes or atoms of quarks. The quarks are physical components of the atom; the tropes are metaphysical components of the property.

The universal is a gutted state of affairs; it is everything that is left in the state of affairs after the particular particulars involved in the state of affairs have been abstracted away in thought.¹⁷

I would like now to merge these remarks with previous remarks about grounding, with the help of tables. The tables represent what each theory is committed to. For each theory I focus only on what grounds what according to that theory, and on what is abstract/concrete according to that theory. If a theory is committed to an entity of a certain type, I mark that with a \checkmark , if not I mark that with an X. Do keep in mind that the word ‘abstract’ can change meaning from one table to the other, as just discussed. I highlight this with the use of subscripts: ‘abstract₁’ means ‘abstract in the sense of not being spatiotemporally located’, ‘abstract₂’ means ‘abstract in the sense of being the result of a process of mental selection’.

Some versions of *in re* realism, which I refer to as *in re_C* \mathcal{U} , hold the following:

<i>in re_C</i> \mathcal{U}	abstract ₁	concrete
universal	X	\checkmark
particular	X	\checkmark

On the other hand *ante rem* universalism looks like:

<i>ante rem</i> \mathcal{U}	abstract ₁	concrete
universal	\checkmark	X
particular	X	\checkmark

Bundle theories of tropes can be represented as follows:

\mathcal{T}	abstract ₂	concrete
universal	X	X
particular	\checkmark	X

On the other hand, substance-attribute theories of tropes hold that:

<i>STT</i>	abstract ₂	concrete
universal	X	X
particular	\checkmark	\checkmark

¹⁷Things are more complicated than this. Armstrong explicitly states, in the quotation reported above on p. 55, that thin particulars are abstract in the sense of being abstracted from thick particulars. Thin particulars are also fundamental in that they provide the metaphysical explanation of how things have properties. A chair being red is explained by the fact that there is a thin particular which instantiates the universal of redness. However the universal of redness is abstracted from the thick particular, not from the thin one, which is property-less. Universals are in turn fundamental. What should we make of all this? Clearly it is outside the scope of this chapter to delve into such fine-grained details about Armstrong’s view, which also encompasses states of affairs, and I have chosen not to address all this here. I am thus going to represent his view as the D.M.A. \mathcal{U} diagram does, in the next page. That this may not represent Armstrong’s view faithfully or misrepresent it is irrelevant. It is only meant to be a target view for my comparison and it is a reasonable enough view to hold.

From the analysis I just carried out about the meaning of ‘abstract’ it seems that there is a further version of *in re* realism which I will call *in re_A U*:¹⁸

<i>in re_A U</i>	abstract ₂	concrete
universal	✓	X
particular	X	✓

Moreover Armstrong’s version can be represented as follows:

D.M.A. <i>U</i>	abstract ₂	concrete
universal	✓	X
particular	✓	X

At the beginning of this chapter I highlighted how important it is for me to narrow down the field of inquiry, and this motivates my choice of two specific theories in the vast realm of Nominalism and Realism. Now it seems I have to narrow down my choice further. Because the focus of this chapter is on dismissivism, this initial set up must be done carefully, to ensure what follows actually helps answer my research question. First of all, recall that I am not going to talk about *ante rem* universalism, and there is only one version of \mathcal{T} . My task is then to choose amongst a variety of versions of \mathcal{U} . The first version represented above, *in re_C U*, clearly does not use ‘abstract’ with the same meaning as \mathcal{T} . If I wanted to check whether the *in re_C U*- \mathcal{T} debate can be dismissed, then it would be easy to argue that the disagreement between the two views is partly semantic, because they are talking past each other about what ‘abstract’ means. I think it is more interesting to try to dismiss a debate in which disputants agree about what words mean, because it is more challenging. Thus I decide not to focus on *in re_C U* anymore. I compare \mathcal{T} to *in re_A U* instead. I leave aside D.M.A. *U* since it introduces unnecessary complexities, due to the notion of states of affairs. For ease of expression from now on I will refer to *in re_A U* simply as *U*.

Before moving onto the metaontological part of the discussion, I would like to add that I am not going to talk about *STT* anymore. One of the reasons behind this decision is the argument run by [Benovsky, 2008]. Benovsky presents a number of examples in which the two theories face the same objections, the same issues, and display other similarities. He argues that (p. 183):

[\mathcal{T} ¹⁹] and *STT* are equivalent because:

- B. the unifying device called ‘substratum’ [(*S*)] in *STT* and the unifying device called ‘compresence’ [(*C*)] in \mathcal{T} are identical (metaphysical equivalence) because:
- C. they play the same theoretical role in the same way and

¹⁸Observe that *ante rem* and *in re_A U* realism are only superficially represented by the same diagram. As highlighted by the subscripts *ante rem* universals are abstract because they are not spatio-temporally located, while *in re* universals are abstract according to the way of abstraction.

¹⁹Benovsky refers to bundle theories of tropes as *BTT*, rather than \mathcal{T} . I stick to my terminology when I quote him, for simplicity’s sake.

- D. they are theoretical entities (that is, they are individuated by their theoretical role).

From this he thinks it is possible to draw two conclusions (pp. 183-184, original emphases):

Strong Conclusion:

Thesis: \mathcal{T} and \mathcal{STT} are *metaphysically equivalent*.

Argument: C and S are theoretical entities, which means that they are individuated by their theoretical role. Since the theoretical role they play is the same, they are the same theoretical entity.

Weak Conclusion:

Thesis: it is epistemically under-determined which one of \mathcal{T} or \mathcal{STT} we should choose.

Argument: C and S are metaphysically different entities, but they play the same theoretical role in the same way, and \mathcal{STT} and \mathcal{T} have the same explanatory power (as far as we metaphysicians are concerned, they both do the job we want them to do).

I am not here trying to assess whether we should endorse the strong or weak conclusion. I think that if \mathcal{STT} and \mathcal{T} are metaphysically equivalent (as per the strong conclusion), then my claims about the dismissability of the \mathcal{T} - \mathcal{U} debate can be straightforwardly applied also to the \mathcal{STT} - \mathcal{U} debate. On the other hand, if it is only epistemically under-determined which one of \mathcal{STT} or \mathcal{T} we should endorse, this does not imply that my claims about the dismissability of the \mathcal{T} - \mathcal{U} debate can be applied also to the \mathcal{STT} - \mathcal{U} debate, because it could be the case that the metaphysical difference between C and S makes one debate but not the other dismissable.

Anyhow, one of Benovsky's conclusions supports my decision not to talk about \mathcal{STT} anymore. The other reason not to do so is that the debate between \mathcal{T} and \mathcal{U} is the most representative of this field of enquiry (as shown at the beginning of this chapter). Thus I will not talk about \mathcal{STT} anymore and focus only on \mathcal{U} and \mathcal{T} .

4. Dismissivism Bennett-style

So far I have discussed the technical features of \mathcal{U} and \mathcal{T} , and compared their most crucial aspects. All is ready to explore whether this debate can be dismissed or not. I will try different strategies, and I start here by discussing the three dismissivist strategies discussed in Bennett [2009]. There are two reasons why I am doing this. First of all, if I can show that the \mathcal{T} - \mathcal{U} debate can be dismissed either for antirealist, semantic, or epistemic reasons, this will answer the question I raised at the beginning of this chapter. Secondly, if none of these strategies succeed, I can look for a different dismissivist strategy, having considerably restricted the field of possibility. This discussion will also achieve a third purpose, i.e. clarify further

the worry I expressed in chapter one about the possibility of generalising Bennett's 'dismissability test', by means of the detailed analysis of an example.

Let us start by checking whether the \mathcal{T} - \mathcal{U} debate can be dismissed for antirealist reasons. In order for me to do this I need to ask whether there is a fact of the matter as to whether universals (tropes) exist. Bennett is vague on what 'no fact of the matter' means (and knowingly so). She does not specify what she takes 'no fact of the matter' to mean. This makes it difficult for me to check if antirealism applies to the \mathcal{T} - \mathcal{U} debate. I would like here to agree with Bennett, that it is not clear what antirealism amounts to, and skip it as a meaningful dismissivist option. Moreover, as highlighted in chapter one, it is very controversial whether antirealism can be developed as a meaningful dismissivist option, due to the problems surrounding the notion of metaphysical vagueness (see p. 2). I think a discussion of Bennett's semanticism and epistemicism will provide more interesting insights on the debate.

I thus turn to discussing whether the \mathcal{T} - \mathcal{U} debate could be dismissed for semantic reasons. Let us recall the definition of semanticism ([Bennett, 2009, p. 40]):

The dispute about whether there are Fs is purely verbal. The disputants assign different meanings to either the existential quantifier, the predicate F, or the negation operator, and are consequently just talking past each other.

If we are to dismiss this debate for semantic reasons, it would have to be the case that the disputants assign different meanings to either 'universal', 'trope', 'there is', 'abstract', or 'fundamental'. From the analysis of the literature, it is quite clear that there is no misunderstanding about what 'trope' means. Moreover, as I have shown in section 3.3 (p. 57), the tropes theorists and universals theorists I am focusing on do not assign different meanings to the word 'abstract'. In section 3.3 I pointed out that the word 'abstract' means different things in the mouth of different universalists and tropists. However, there I also restricted my choice to two specific versions of \mathcal{U} and \mathcal{T} , which assign the same meaning to the word 'abstract'. Furthermore, since my chosen \mathcal{U} and \mathcal{T} mean the same thing by 'abstract', they also mean the same thing by 'concrete', because 'concrete' is defined simply as what is not abstract. As a consequence of my choice of which theories I am focusing on, the case for semanticism cannot be based on what 'abstract' means.

Nothing in the literature makes me suspect that tropists and universalists are assigning the words 'exist' or 'there is' different meanings. It does not seem that they are restricting the scope of their quantifiers either. I will put aside the terms 'fundamental' and 'grounding' because the final chapter is dedicated to these terms.

I now explore the possibility that the misunderstanding is about the word 'universal'. When reading papers by tropes theorists and universalists, it seems that the definition of universal is acknowledged by both sides of the debate, without any misunderstandings. For instance, when Williams [1953] claims that the notion

of universal is unclear ('obscure' p. 13), he describes what he takes a universal *ante rem* to be and he says (*ibid.*):

The specious eternity a *universal* has because, as Stout put it, it "spreads undivided, operates unspent", [...] and the specious eternity an *abstractum* has because in attending to it we normally "abstract from" its spatiotemporal location (which nevertheless it has and keeps).

This quotation (despite the somewhat dated terminology) shows that Williams understands *ante rem* universals in a way that a universal theorist would like and accept, i.e. as abstract and repeatable entities. This supports my thought that if trope theorists and universal theorists are talking past each other, they are not misunderstanding the term 'universal'.

However, perhaps the crucial issue lies in the fact that universals are supposed to be wholly present at more than one time and place, and many take 'wholly present' to be problematic. It has been pointed out by various authors (for instance [Sider, 2001, chap. 3.3]) that even though 'wholly present' seems a very intuitive and easy notion to grasp, when we actually try to define it, we run into problems. It could be the case that it is a contradictory notion, or a meaningless one. It is also possible that tropists take 'wholly present' to mean something, while universalists take it to mean something different, since there is no agreed-upon definition of it. If it turns out that 'wholly present' is in fact a contradictory or meaningless notion then the debate about the existence of universals would be solved, because it would turn out that universals do not exist, thus eliminating one of the two views at stake. On the other hand, if it is the case that 'wholly present' means different things in the mouth of the tropist and in the mouth of the universalist, then it would not be the case that tropists and universalists agree on the definition of universals, but rather are talking past each other. In such a scenario we could try to dismiss at least part of the disagreement arising in this debate for semantic reasons.

I am not convinced by this line of argument, because I think it mixes together two different issues. Something can be wholly present at some time and place without being wholly present at *more than* one time and place. In other words something can be wholly present at time t and place p , and this does not imply that the same thing will be wholly present at t_1 and p_1 as well. I think the argument just presented takes 'wholly present' to mean 'wholly present at more than one time and place' and this is a mistake. With these remarks in mind, let us grant for the moment that tropists and universalists are talking past each other about the meaning of 'wholly present'. So let's assume that tropists think universals are wholly present in a different way from how universalists take universals to be wholly present. I do not think this scenario constitutes a good reason to dismiss at least part of the disagreement between \mathcal{T} and \mathcal{U} on the basis that \mathcal{T} and \mathcal{U} are having a verbal misunderstanding. I hold this because tropists reject universal entities, regardless of how exactly they are wholly present. The reason why tropists think

universals do not exist is not because they find problematic the way in which they are wholly present, but rather because universals have multiple instantiations. This explanation can be supported by also treating tropes as wholly present at the time and place at which they exist. What tropists dislike is that the same entity can have multiple instantiations, and this is the reason why they reject universals. The problem with universals is thus that they are wholly present *at more than one place and time*, and not only that they are wholly present (which is a feature of tropes as well). This highlights that the dispute is about the *at more than one time* bit of the definition of wholly present, rather than about ‘wholly present’ alone. This makes me think that even if tropists and universalists are in fact talking past each other about the definition of ‘wholly present’, the dispute is not a case of semanticism, because their talking past each other is *not* the reason why they are having the dispute. Rather what is at stake is the existence of universal entities which tropists reject *tout court*.

To sum up, it does not seem that \mathcal{T} and \mathcal{U} are talking past each other when it comes to the terms ‘abstract’, ‘universal’, or ‘exist’. However, in chapter one I pointed out that Bennett’s semanticism is not the only way in which a philosophical dispute may be verbal, i.e. due somehow to how words are used. I discussed there the notion of verbal dispute, following [Manley, 2009] and [Chalmers, 2011]. Even though the \mathcal{T} - \mathcal{U} debate does not seem to fit Bennett’s definition of semanticism, it is legitimate to raise a question whether the disagreement between them constitutes a verbal dispute, in the sense specified in chapter one. For the \mathcal{T} - \mathcal{U} debate to be a verbal dispute, it has to be the case that disputants assign the same semantic meaning to the terms involved, but different speaker meanings. The first requirement is clearly met, as I have shown that disputants mean the same when they use the words ‘tropes’, ‘universals’, ‘exist’, ‘abstract’, and ‘concrete’ (given my earlier clarification). For what concerns speaker meaning, Manley [2009, p. 8] points to a typical hint that disputes are verbal:

[...] verbal disputes are accompanied by a distinct odor of superficiality, an odor that some philosophers claim to detect in the ontology room.

Although I do not think that my case study seems to be based on a shallow disagreement, this is not a rigorous method to individuate verbal disputes. Regardless, it does not seem to me that disputants assign different speaker meanings to the words just mentioned, and there is no textual evidence that can be brought to support that they were.

Even though the final word about the possibility that the \mathcal{T} - \mathcal{U} debate is verbal needs to be postponed to chapter four, where I will discuss fundamentality and grounding, I turn to the discussion whether the \mathcal{T} - \mathcal{U} debate could be dismissed for epistemic reasons. In turn this means I have to go through each step of Bennett’s

argument in favour of epistemicism, checking whether and how the \mathcal{T} - \mathcal{U} debate fits her scheme. Recall [Bennett, 2009]’s argument:

- (1) The high-ontologist postulates more entities than the low-ontologist;
- (2) ‘Both sides try to minimize their differences from their opponents’ (p. 62)
 - a The high-ontologist ‘insists that her extra ontology is nothing over and above what the low-ontologist accepts’ (*ibid.*);
 - b The low-ontologist ‘tries to recapture most of the claims that the high-ontologist accepts’ (*ibid.*).
- (3) ‘It is not obvious that the low-ontologist’s view is simpler than the high-ontologist’s view’ (p. 63);
- (4) ‘The problems for the high-ontologist rearise for the low-ontologist’ (*ibid.*).

If all this is the case, then the debate should be dismissed for epistemic reasons. It is important to recall that Bennett’s argument is in two parts, as highlighted in chapter one. (3) and (4) follow from (1) and (2), and the conclusion that a debate should be dismissed for epistemic reasons follows from (3) and (4), however (1) and (2) are only sufficient conditions for (3) and (4). Thus, it may be the case that even if (1) and (2) do not hold it is still possible that (3) and (4) hold and that epistemicism follows.

Bennett [2009, pp. 63-64] presents some further remarks about the interplay between high-ontology vs. low-ontology and how this affects the debate between them:

It is not obvious that the low-ontologist’s view is simpler than the high-ontologist’s view. [...] The low-ontologist cannot recapture the high-ontologist’s claims for free; doing so requires postulating a certain amount of machinery. The low-ontologist must either replace the high-ontologist’s ontology of objects with an ontology of properties, or else trade ontology for ideology. [...] The nominalist [...] buys her way out of ontology with the coin of ideology. So even if the low-ontologist wins the battle of ontological commitment, he does not win the war of simplicity. On at least one way of reckoning simplicity, the two come out roughly on a par.

These claims play an important role in Bennett’s paper in that they explain why (3) can be inferred from the two steps of the difference-minimizing process. This is important for me now because if it turns out that I cannot identify a low/high-ontology side in the \mathcal{T} - \mathcal{U} debate this will make it more difficult to show that the two disputants are difference-minimizing. This in turn will make it more complex to show that the debate can be dismissed for epistemic reasons. In what follows:

- I will argue that finding the high/low-ontology sides in the \mathcal{T} - \mathcal{U} debate is problematic (section 4.1);
- I will argue that (2a) and (2b) are not the case (section 4.2);

- I will discuss (3) in depth arguing that we cannot know which of \mathcal{T} - \mathcal{U} is simpler (section 4.4) and argue that we have very weak support for claim (4) (section 4.3).

If my remarks about why (1) is problematic are convincing, then it is not necessary for me to challenge (2a) and (2b) as well. However, I intend to present independent arguments that conditions (2a) and (2b) are not met by the \mathcal{T} - \mathcal{U} debate, thus granting to some readers that there may be high/low-ontology sides in the debate.

The purpose of the discussion of Bennett's strategy is not to argue that it is flawed (I have expressed my worries about this in chapter one). In her case studies she showed that this strategy goes through. What I want to do is to show that in the present case study it looks like her strategy is very problematic, and because of this, if one wants to argue that the debate can be dismissed, one should feel inclined to use a different route.

4.1. High-ontology and low-ontology sides. The purpose of this section is to find out whether \mathcal{U} and \mathcal{T} can fit the high/low-ontology classification. Since the high-ontology side, in Bennett's definition, postulates more entities than the low-ontology side, the best method to pursue this question is to count the entities postulated by each side of my debate. The one which postulates less entities is the low-ontology side. I will argue that it is either impossible to assign high/low-ontology sides, or that very weak support can be given to any proposed assignment. My main aim is to provide reasons for skepticism about the high/low-ontology approach to dismissivism about the \mathcal{T} - \mathcal{U} debate.

To start with, recall that by \mathcal{U} I refer to a theory committed to the existence of abstract universals and concrete particulars. According to \mathcal{U} , both universals and particulars are fundamental. By \mathcal{T} I refer to a theory committed to the existence of abstract particulars and concrete particulars (bundles of tropes). According to \mathcal{T} , only abstract particulars are fundamental. A further detail to keep in mind is that universals are normally sparse (and thus finite), i.e. there is a universal corresponding to each natural property, but there are no universals for gerrymandered properties.

There are different ways to count how many entities a theory is committed to. The first strategy is to count the amount of entities postulated by each theory (for this purpose, that the entities involved are abstract or concrete is irrelevant, thus I do not need to worry about this). Here I immediately face a problem, because it is not known whether there is a finite or infinite number of objects in the universe, and it is not known whether matter is infinitely divisible or not. Scientists have not figured this out yet. In the following diagram, I describe four possible scenarios. I

use \aleph_0 to refer to the cardinality of the set of natural numbers.

Finite matter			Infinite Matter		
Tropes \aleph_0	Particulars Finite	Result \aleph_0	Tropes \aleph_0	Particulars \aleph_0	Result \aleph_0
Universals Finite	Particulars Finite	Result Finite	Universals Finite	Particulars \aleph_0	Result \aleph_0

According to the first counting method, if matter is finite, then \mathcal{U} turns out to be more parsimonious, however if matter is infinite, \mathcal{T} and \mathcal{U} turn out to be equally parsimonious.²⁰

The second strategy is to count what a theory says is fundamental rather than what a theory says exist. This idea comes from remarks made by Schaffer [2008] and Schaffer [2009] (see also chapter one, section 2.1, p. 12). If I count the entities \mathcal{T} says are fundamental, the set of tropes has cardinality \aleph_0 . On the other hand, if I count the entities \mathcal{U} says are fundamental, there is a finite number of universals and an either infinite or finite number of concrete particulars, depending on what science tells us. Thus, counting only fundamental entities, if matter is finite, \mathcal{U} is always more parsimonious than \mathcal{T} , however if matter is infinite, then they are equally parsimonious.

There is a third way of counting, which is the approach Bennett uses in her case studies, i.e. counting the types of entities a theory is committed to.²¹ Here I use the expression ‘types of entities’ to refer to the distinction between universals and particulars.²² If one goes for this strategy, \mathcal{U} is committed to the existence of two types of entities, while \mathcal{T} is committed to the existence of one type of entity. This makes \mathcal{T} the low-ontology side.

An interesting question can be raised here, i.e. which types of entities is \mathcal{T} committed to? For instance, some may argue that since all cat tropes make up the resemblance class of cat tropes, cat tropes are a type of entity, different from chair tropes or being-brown tropes. It is also possible to argue that bundles of tropes are different types of entities from tropes. I think these are interesting suggestions, and I address them in turn. First of all, I do not think different tropes are different types of entities, because all tropes share some crucial features, such as: being abstract, being particular, being non-repeatable and non shareable. Similarly, it is commonly acknowledged that different universals, such as redness and tablehood,

²⁰There is no reason to think that the set of tropes has the cardinality of \mathbb{C} , if this was an option it would add a third possibility, depending on which cardinality one prefers. I do not think it is plausible to take the set of tropes to be that big, so I am not going to pursue this option any further.

²¹As highlighted in chapter one (2.1, p. 12) Bennett does not say why she chooses this counting method over the other ones.

²²For a discussion of qualitative types of entities, i.e. the distinction between concrete and abstract entities, see section 4.4.

are not different types of entities, because they share the features that make them what they are, i.e. universals. For this reason, I take all tropes to be one type of entity. Secondly, with respect to the suggestion that tropes may be a different type of entity from bundles, I would like to stress that by \mathcal{T} I refer to a bundle theory of tropes. According to bundle theories of tropes, tropes ‘get together’ and form bundles, but this does not imply that bundles enjoy a separate type of existence from the tropes they are made of. In other words, bundles supervene on the tropes they are composed of. Bundles are nothing over and above the tropes that compose them. This is why bundles are not a different type of entity from tropes.

However, even if I am wrong and different tropes are indeed different types of entities, or even if bundles and tropes are different types of entities, that \mathcal{T} is committed to two types of entities supports my point even further, because it puts on the table another possible answer to the question of which theory is more parsimonious, thus complicating matters more.²³

To sum up if I adopt the first or second strategy, I cannot establish which theory is the high(low)-ontology side, because science has not told us yet whether matter is finite or infinite. In these cases I cannot find out which is which *just now*. I need to suspend judgment at the moment and wait for further evidence provided by science. This does not imply that there are no high/low-ontology sides in the \mathcal{T} - \mathcal{U} debate. It does however imply that I do not know which are the high/low-ontology sides at the moment. On the other hand, if I adopt the third strategy I do get a definite answer. This seems altogether very inconclusive.

This discussion raises the question of which counting method I should choose. I would like to argue that we lack good reasons to choose one method over another, and even though a detailed discussion of this would bring us too far from the topic of this chapter, I can still make a few remarks to support my claim. In order to see which counting method is to be preferred, it is best to think of the benefits one counting method has over others. The first strategy councils us to count the entities a theory says exist. The benefit of this method over the second and third strategy is that we get a comparison between the total ‘amount of stuff’ the two theories are committed to. However this method does not take into account the differences between what the two theories take to be fundamental. It seems important to compare the differences between the amount of fundamental entities postulated by each theory, and this method unfairly disregards this.

The second counting method focuses on fundamental entities, thus addressing the worry raised above, however counting only fundamental entities disregards all the other entities a theory is committed to. This method thus seems to misrepresent the differences between the two theories, because it leaves a lot of entities out of the picture. These entities, even though they are not fundamental, still form the

²³To see an example of another debate which raises counting problems, see [Miller, 2005b].

bulk of what a theory is committed to and it thus seems they should be taken into account when deciding which theory is more parsimonious. Similar remarks can be made about the third strategy, i.e. counting only types of entities. This compares the parsimony of the two theories with respect to an important aspect (i.e. types of entities), however the worry can be raised that all other entities are unfairly disregarded.

If these remarks are compelling, then when it comes to the choice of a counting method, I find myself in a quandary. If this is right, then I can attempt a slightly stronger conclusion than suspending judgment and waiting for more scientific discoveries. If there is no good reason to pick one counting method over another, then even if science at some stage found out how much matter there is, we still would not be able to decide whether \mathcal{U} is more parsimonious than \mathcal{T} or vice versa. Let us say matter is finite, then both the first and second counting method classify \mathcal{U} as more parsimonious, but the third counting method classifies it as less parsimonious. If on the other hand matter is infinite, then both the first and second counting method classify \mathcal{U} and \mathcal{T} as equally parsimonious, while the third counting method still classifies \mathcal{U} as less parsimonious. Without compelling reasons to choose a counting method over the other, this is inconclusive.

4.2. Difference-minimizing. I do not want to reject Bennett's strategy only on the basis of the issues just highlighted. I prefer to keep exploring Bennett's argument. For the sake of the argument, let us thus endorse the third counting strategy discussed above and assign \mathcal{T} to the low-ontology side and \mathcal{U} to the high-ontology side, because this mirrors Bennett's choice. The purpose of the following discussion is to argue that premises (2a) and (2b) (see their definitions on p. 67 of this work) of Bennett's argument do not hold in my case study, even if we do assign high/low-ontology sides. Bennett [2009, p. 62] says:

The high-ontologist insists that her extra ontology is nothing over and above what the low-ontologist already accepts, and will say that the low-ontologist has too thick a notion of an object. The low-ontologist tries to recapture most of the claims that the high-ontologist accepts.

The questions I am addressing thus are:

- Does \mathcal{U} insist that its extra ontology is nothing over and above what \mathcal{T} already accepts, and does \mathcal{U} say that \mathcal{T} has too thick a notion of an object?
- Does \mathcal{T} try to recapture most of the claims that \mathcal{U} accepts?

I do not think \mathcal{U} insists that its extra ontology is nothing over and above \mathcal{T} 's. This is the case for two reasons: first of all it is not the case that \mathcal{U} has some 'extra' ontology over \mathcal{T} , i.e. it is not the case that \mathcal{U} 's ontology = \mathcal{T} 's + x . Rather, as described in section 3, the two ontologies are radically different. The second reason is that \mathcal{U} is not interested in downplaying its ontological commitments. \mathcal{U} is not concerned about having more entities than \mathcal{T} and does not try to show

that universals can somehow be thought of as constructions of tropes. Rather \mathcal{U} is happy with its ontological commitments, because it thinks they are right, while \mathcal{T} is wrong, and vice versa.

Further clarification on this can be provided by comparing my present case with Bennett's believer and nihilist in the composition debate. When the believer accuses the nihilist of having too thick a notion of object, he means to say that the objects of his own ontology are nothing over and above the simples of the nihilist's ontology. The nihilist, believers say, should not be worried about postulating composite objects in their ontology, because they really are nothing more than simples arranged object-wise. I think my case study is very different from Bennett's in this respect. There is no symmetry between the two case studies, because there is no agreement between \mathcal{T} and \mathcal{U} about what there is, whereas there is some agreement about what there is between nihilists and believers. In the latter case, believers agree with nihilists that things are composed of simples, but additionally argue that composite objects exist, against the nihilist. In the case of \mathcal{T} and \mathcal{U} , they both agree that concrete particulars exist, but then each theory tells its own story about how those things have properties and it is not the case that universals are reducible to tropes in the same way as composite objects are reducible to the simples they are composed of. For these reasons I do not think that \mathcal{U} would say that \mathcal{T} has too thick a notion of an object.

The second question is whether \mathcal{T} tries to recapture what \mathcal{U} claims. I do not think this is the case. I think \mathcal{T} and \mathcal{U} have the purpose of recapturing ordinary judgements about what objects there are and what objects are like, but not each other's claims. For instance, when a layman says that there is a brown table a tropes theorist recaptures this by saying that there is a bundle of tropes which includes the tropes of being-this-shade-of-brown and being-this-table. On the other hand a universals theorist recaptures that by saying that there is a particular instantiating the universals of tablehood and brownness. \mathcal{T} and \mathcal{U} also try to show that their opponent is wrong, so sometimes they need to re-express what the other is saying. For instance, the tropist wants to be able to say: ' \mathcal{U} is wrong because universals do not exist'. It is clear from the literature that \mathcal{T} never tries to claim what \mathcal{U} does nor vice-versa. \mathcal{T} does not try to translate \mathcal{U} 's claim in tropes terms. \mathcal{T} rather offers a different story about how particulars have properties, i.e. by having tropes.

An important distinction is in order. There is a sense in which it is true that \mathcal{T} tries to up-play expressive power. For instance, \mathcal{T} does that when it groups tropes in resemblance classes, in order to recapture the concept of property. This seems to be an analogy between \mathcal{T} and the low-ontology sides in Bennett's case studies. However, Bennett's low-ontology sides up-play their expressive power for two reasons. First, to be able to talk about entities its ontology does not encompass, secondly to reconstruct the other side's claims, and with the purpose of minimizing the differences between themselves and their opponents. On the contrary \mathcal{T} tries

to up-play its expressive power for the first reason only, i.e. because it needs some ideological machinery to talk about the entities its ontology does not encompass. This however is not done for the purpose of reconstructing \mathcal{U} 's claims, but rather to reconstruct ordinary judgments.

In order to provide more support for my claim, I would like to discuss an example taken from the \mathcal{T} - \mathcal{U} literature, in which the attempt at recapturing opponents' claims for difference-minimizing purposes badly backfires. This is the case in which the attempt of \mathcal{T} to mimic \mathcal{U} is in some respect self-defeating. Since Bennett thinks the effort to say all the rival party says is part of what it is to be difference-minimizing, I think I can provide an example of one reason why at least in this case \mathcal{T} should not try to difference-minimize with \mathcal{U} , but rather say things in its own way.

The case I have in mind is that of Fuhrmann [1991], who tries to build an account of laws in terms of tropes. He builds the definition of laws of nature mirroring the Dretske-Tooley-Armstrong approach (*DTA*), which is one of the most popular accounts of laws based on an ontology of universals (see [Armstrong, 1983]). According to *DTA*, laws are explained by a relation of necessitation (called *N*) between universals. This relation ensures the necessary concurrence of two universals and thus explains the lawlike behavior of particulars. Fuhrmann mimics this account and defines a relation of necessitation, using tropes instead of universals. He argues that the relation of necessitation holds between tropes. Since tropes are property instances, and not properties, some story has to be told about what necessitation is, how it can link tropes together, and why it explains what laws are. Fuhrmann tries to explain this by introducing various structures, logical tools, and entities, such as a semi-lattice as structure for tropes ordering, and dyadic tropes. In doing so, he runs into trouble, and his account is ultimately unsatisfactory. The main reason for this is that it is easier to explain the role, rationale, and mechanics of the relation of necessitation in an ontology of universals, because universals are properties, whereas it is very problematic in an ontology of tropes. Fuhrmann's problem is not that he adds a lot of 'ideology' to his account (to use Bennett's phrase), there is nothing wrong in principle with that, but rather that his story does not give a satisfactory explanation of what laws are.²⁴

On the other hand I can present an example of an account which seems more promising, i.e. Campbell's. It is important to note that part of the reason why Campbell's approach looks promising is that it uses expressive devices which fit well with a tropes ontology, and does not force other theories' tools on it (e.g. necessitation). I cannot infer from this that it is in general a good thing to have the ideology matching the 'spirit' of the ontology, however it is interesting that Campbell's account seems to work better than Fuhrmann's for this reason. Campbell

²⁴A full defense of this claim would take me too far from the topic of this chapter. I refer the reader to [Porro, 2009].

does not offer a complete account of laws of nature, but he suggests that laws are just facts about how tropes are composed ([Campbell, 1990, pp. 123-124]):

it is [contingent] that objects contain the bases they do, and contingent that other things in the world have the passive powers²⁵ without which bases would be unable to be effective on them [...] but being a cause, or being capable of receiving an effect, supervenes on having the appropriate power and that power supervenes on its intrinsic base. So that given the active and passive powers, the existence of causal relations is a supervening necessity, but whether given objects have the appropriate powers is contingent and whether those powers are exercised is contingent.

I quote here a passage from [Porro, 2009], to comment on Campbell's ideas (p. 9-10). 'In this passage Campbell first of all says that the fact that tropes are arranged in a certain way is contingent. This means that, for instance, the fact that there are certain bundles such as chairs and there are no bundles such as dragons is contingent: there may be a possible world in which tropes are arranged in different bundles from the actual ones. Furthermore, Campbell says that the fact that certain tropes have certain effects on other tropes is a matter of fact, and as such, it is necessary. What is interesting about this passage is that Campbell does not try to mimic the universals approach, because he is aware of the deep difference between tropes and universals. Thus he avoids the introduction of new relations, such as Fuhrmann's relation of necessitation (N , see [Fuhrmann, 1991, p. 73]), and speaks of supervenience, which avoids unnecessary ontological commitments. I think Campbell is hinting at what we could call 'nominalism' about laws. In his view laws are just names that refer to tropes behaviour. This seems to fit well with tropes being particulars. When a trope a has a certain effect on a trope b , this is all there is to say about the causal relation between a and b . When this causal relation shows a pattern of regularity, frequency, and the power to justify other tropes behaviors, it can be called 'law.'

I am not going to delve into details about whether Campbell's idea can be developed into a coherent explanation of laws of nature, and whether Fuhrmann's account fails with no remedy. It is however interesting to note that Campbell's suggestion tries to explain laws with the tools a theory of tropes has available, namely tropes only. It does not try to reproduce a universal-style theory of laws and thus offers an original theory of laws. If it runs into trouble, it does so not because it imported a tool from universals ontologies, which turns out to create problems with tropes. If my assessment of the difference between Fuhrmann and Campbell is right, and if I am right in claiming that Campbell's account has a greater chance of succeeding than Fuhrmann's, then I have presented a case in which the attempt to difference-minimize is self-defeating. This means that at

²⁵In Campbell terms, 'power' stands for 'intrinsic characters of the basis' ([Campbell, 1990, p. 121]), and 'basis' is a synonym for trope.

least in this area of inquiry \mathcal{T} has reasons not to try to reconstruct \mathcal{U} 's claims, but rather develop an original account.

4.3. Issues faced by \mathcal{T} and \mathcal{U} . I have so far discussed Bennett's conditions (1) and (2). I now wish to challenge one of the conclusions Bennett draws from (1) and (2), i.e. that disputants involved in a difference-minimizing debate end up facing similar issues (this is step (4) of Bennett's dismissability test). I run here a quick survey of issues faced by universals theories, tropes theories, and by both.

4.3.1. *Universals and their problems.* Some common criticisms raised against universals ontologies concern the relation of instantiation (or emanation, participation, ..., depending on which author one is targeting) which links universals to particulars.

'A particular, a , instantiates universal F . But what of the relation of instantiation? Must not the pair, a and F , instantiate the universal of instantiation, and so *ad infinitum*?' ([Armstrong, 1989, p. 55])

'Suppose a is F and b is also F , with F a property universal. The very same entity has to be part of the structure of two things at two places. How can the universal be in two places at once?' (*ibid.* p. 77)

'Property universals are multiply located but relation universals are not, why?' (*ibid.* p. 90)

Two famous problems arise when universals are employed to explain laws of nature [van Fraassen, 1989, p. 96]:

Identification problem: which relation between universals is the relation \rightarrow (necessitation)?

Inference problem: what information does the statement that one property necessitates another give us about what happens and what things are like?

The identification problem highlights the difficulties the relation of necessitation meets. Necessitation is supposed to explain why laws of nature are metaphysical necessities rather than contingent concurrences of particular events, however it is not straightforward that it can do so. The inference problem on the other hand points to the relation between universals and particulars and challenges how this relation actually works.

4.3.2. *Tropes and their problems.* Tropes theories run into trouble for the following reasons. First of all, tropes are abstract, whereas particulars they compose are concrete. The shift from abstract to concrete is not straightforward. Second, tropes have to explain utterances like 'Both a and b are F '. This and similar sentences are strictly speaking inaccurate, but they can be translated in tropes terms

as saying ‘ a and b each have a trope, and these two tropes resemble each other’. For instance, if two cats are brown, each of them has his own trope of being-this-shade-of-brown (recall that tropes are not shared), however the two tropes resemble one another. Why do some tropes resemble one another? It cannot be because they instantiate a trope of ‘resembling’, since this causes a vicious regress.²⁶ One of the many alternatives suggested in the literature is to treat resemblance as a primitive, however this leaves many philosophers unsatisfied, as it is not a very enlightening explanation.

Moreover when it comes to explaining laws of nature, tropes do not seem to be better off than universals, as there have been very few and not particularly successful attempts in the literature to elaborate an account of laws in terms of tropes (see the example just discussed in the previous section about [Fuhrmann, 1991] and [Kistler, 2003]).

I turn to the discussion of common issues faced by both views. This parallels Bennett’s strategy for epistemic dismissal of a debate. Even though earlier on I said I am interested only in specific versions of \mathcal{U} and \mathcal{T} defined in section 3.3, in what follows I will briefly touch on other versions of \mathcal{U} and \mathcal{T} , because I believe the remarks coming out of the comparison with other versions prove interesting and help clarify the point I am trying to make in this section. I here discuss the relevance of the following three issues which seem to rearise in similar fashions for both \mathcal{U} and \mathcal{T} .

- (i) states of affairs are required both by \mathcal{U} and \mathcal{T} ;
- (ii) the substance versions of \mathcal{U} and \mathcal{T} run into the same issue of having problematic independent substances;
- (iii) both \mathcal{U} and \mathcal{T} have to solve issues that concern the relationship between their respective fundamental entities.

(i) Armstrong [1989, p. 117] states his argument as follows:

Suppose that a has property trope F . This is either a matter of F ’s standing in the bundling relation to the other tropes that make up a (bundle version) or else is a matter of F ’s being an attribute of a (substance-attribute version). In either case, states of affairs are required. For instance, a ’s being F entails the existence of a and trope F . But a and trope F could exist without a ’s being F . So $[a+F]$ (the object that is the mere sum of a and F) is an insufficient truth-maker for a ’s being F . States of affairs are required as part of the ontology of any trope theory.

According to Armstrong this argument applies to tropes nominalism and predicate nominalism, but not to class and resemblance nominalism (p. 90). C.B. Martin tries to block this argument by saying (*ibid.* p. 118):

²⁶Some claim they can escape the regress, for instance by showing it is not vicious. For more details on this see [Rodriguez-Pereyra, 2011, sec. 4.1].

in a world that contains a , b , F , and R , then that world also contains a 's being F and a 's having R to b . States of affairs flow necessarily from, supervene on, the bare existence of their constituents. Hence we need not assume that states of affairs are anything additional to their constituents. They become an ontological free lunch.

Armstrong replies to this objection by saying (*ibid.*):

States of affairs have their cost: one has to accept that it is at least possible that different states of affairs contain exactly the same constituents. Martin's necessities have their cost also: given the world's particulars, properties, and relations, then the nature of the world is ineluctably fixed. A rather mysterious necessity in the world. Which poison should the boys in the backroom choose?

Since, as Armstrong highlights, states of affairs have their costs, some may view this not just as a similarity between \mathcal{T} and \mathcal{U} , but also as an issue both theories run into.

I do not think a nominalist like Campbell would accept the first step of this argument, according to which \mathcal{T} is committed to existence of states of affairs. A Campbell-style response would claim that a 's being F just *is* F being part of a certain bundle. To be a is to be nothing over and above the bundle of its properties. Once we have the bundle there is nothing more to add to explain why a is F . In turn, a bundle is nothing over and above compresent tropes. When tropes are compresent, this creates the bundle. Basically the bundle supervenes on compresent tropes. According to such a response a 's being F is explained by a being the bundle that supervenes on a bunch of compresent tropes, one of which is F . This response does not seem to be a knockdown defense of tropes theory against Armstrong's charges. However, we see that Armstrong's argument can be resisted. It is not a universally accepted argument against tropes theories.

To sum up, it is controversial whether this is really an example of an issue arising in the same way for \mathcal{T} and \mathcal{U} .

(ii) The substance-attribute version of \mathcal{T} and the substance-attribute version of \mathcal{U} seem to run into a similar problem. According to Armstrong [1989, p. 73], a substance:

is something that is capable of independent existence. Substances may depend upon other substances, causally for instance, but it will at least be a logical possibility for individual substances to exist in complete independence. A substance logically requires nothing beyond itself for its existence. It could be the only thing in the universe.

However this creates a problem for both views ([Armstrong, 1989, p. 115]):

[...] such properties as particular mass and charge - natural candidates for universals - do not seem to be at all suitable to be the substance of the world. They could not exist independent of anything else. But the substitution of tropes for universals may not improve the situation much. A trope of a particular mass or particular charge seems nearly as insubstantial, as incapable of independent existence, as the corresponding universal.

The two theories at stake here have the same structure, as they claim that each theory's fundamental entity is a substance. Because both theories want to build particulars using substances they need physical properties, like mass and charge, to be substances. The difference between the two theories is that one postulates mass and charge tropes, while the other postulates mass and charge universals. However, Armstrong argues, it is problematic just how a mass trope or a mass universal can exist independently of the thing it is the mass of, and in this respect both theories run into the same issue.

I am not convinced by Armstrong's argument, because I disagree with his decision to treat tropes and universals as substances of the respective theories. I think it is more natural to think that a substance-attribute theory of tropes holds that tropes are attributes, while a substance-attribute theory of universals holds that universals are attributes. If this is right then the role of substances is played by bare particulars, in both theories. If my criticism is correct, then (ii) is not a good example of a problem that arises in similar ways for both theories of tropes and universals.

On the other hand, some may agree with Armstrong's interpretations and think that (ii) is indeed a strong case against substance-attribute versions of both universals and tropes theories. However my case study concerns bundle theories of tropes, rather than substance-attribute theories of tropes, and (ii) does not apply to my case. This cannot then be used as an example to support the claim that \mathcal{U} and \mathcal{T} run into the same issues, because by ' \mathcal{T} ' I refer to bundle theories of tropes.

(iii) is another parallel issue that both \mathcal{T} and \mathcal{U} need to address. The most problematic issues both \mathcal{U} and \mathcal{T} face are due to how their respective ontologies work. This can be seen by looking at some of the issues \mathcal{U} and \mathcal{T} face in other fields (not the strictly ontological one). Take for instance laws of nature. As van Fraassen highlights, the reason why the \mathcal{U} account of laws of nature is problematic is partly because the relation between universals and particulars is not clear. If \mathcal{U} could clarify this element, its account of laws of nature would benefit as well. Similarly \mathcal{T} 's account of laws of nature struggles partly because accounts of how tropes stick together into bundles are problematic. Clarifying this issue would also improve the accuracy of the account of laws of nature.

I do not think this is a convincing example of an issue that arises for both disputants, because it is too general. The crucial aspect of all metaphysical views is how the entities postulated by each are related to one another, and many metaphysical views run into troubles because such relationships are not clear enough. (iii) thus seems to be a case of an issue that involves all metaphysics, rather than \mathcal{U} and \mathcal{T} only.

I think the parallel issues just discussed do not provide a strong case to support Bennett's claim (4), because the parallelism in them is weak. The reason why it is not possible to find as many parallel issues arising for \mathcal{U} and \mathcal{T} as in the case of composition highlights an important disanalogy between these two debates. The \mathcal{T} - \mathcal{U} debate is about broad and various topics, such as property attribution, identity, similarity, laws, and existence. These topics are sometimes related to one another and need to be addressed together. For instance, when explaining how things have properties we inevitably have to deal with resemblance as well. However other topics are not related in such a way. For instance, a discussion of causation naturally leads to a discussion of laws of nature, but proposing a solution to issues connected with property attribution and similarity does not require a discussion of laws of nature or causation. Since the \mathcal{T} - \mathcal{U} debate covers so many topics, many tools and strategies are developed for each issue. This makes it unlikely that \mathcal{U} and \mathcal{T} are going to run into similar issues in each topic they address.

On the other hand believers and nihilists in the debate about composition simply address the issue of composition, they do not get involved with other unrelated topics, apart from those they need to address for their respective accounts to work. For instance, believers and nihilists both try to answer the question of whether composite objects exist. In doing this they address a number of related topics, such as what there is, causation, causal overdetermination (see [Bennett, 2009, p. 69]), and the problem of the many. However they do not need to talk about topics that are not directly relevant to their central research question (such as laws of nature, property attribution, persistence, ...).²⁷

There are two possible ways to react to what I have done in this section. It is possible to argue that the three cases highlighted show that \mathcal{T} and \mathcal{U} do not run into parallel issues, or it is possible to disagree with the methodology used to show that \mathcal{T} and \mathcal{U} do not run into similar issues. The first option is to agree that the examples of problems arising for \mathcal{T} and \mathcal{U} are unconvincing. I think Bennett [2009, pp. 65-71] provided much greater support for her claim about composition and colocation than I have in my case study. If this is the case, then Bennett's strategy fails in this instance and we should move on to finding different dismissivist strategies.

However, I also want to take into account those who disagree with the argument I ran in this section. One could argue that the reason why I did not find parallel

²⁷See p. 49 of this work.

issues for $\mathcal{T}\text{-}\mathcal{U}$ is the specific choice of theories I made. In particular, I highlighted that the substance-attribute versions of $\mathcal{T}\text{-}\mathcal{U}$ perhaps run into similar issues. Thus, one could argue that had I chosen to consider substance-attribute versions, I would have had more support for Bennett's claim. I acknowledge that this is a live possibility, and that I have not settled a final answer to this objection. I want to take such objection into account and grant the possibility that even if Bennett's step (4) does not apply to the $\mathcal{T}\text{-}\mathcal{U}$ debate as I set it up, it may apply to some debate in the vicinity. Thus I do not want to declare Bennett's approach unsuccessful at this stage. However, even if we grant that (4) may hold, this is not enough to show that the $\mathcal{T}\text{-}\mathcal{U}$ debate can be dismissed for epistemic reasons, because one still needs to argue for (3), i.e. that both views are equally simple. If (3) holds, this together with the truth of (4) ensures that the debate can be dismissed for epistemic reasons, according to Bennett's argument.

To sum up, in this section I have offered various challenges to the possibility that the $\mathcal{T}\text{-}\mathcal{U}$ debate meets Bennett's conditions (1), (2a), and (2b). I have also provided reasons to doubt that this debate meets condition (4). Only (3) is left out and I will discuss it now, holding that it is very difficult to argue that \mathcal{T} and \mathcal{U} are equally simple. This will remove the final possible implementation of Bennett's strategy to my case study. Thus even if someone disagrees with the claims made in this section, I will show that this debate cannot be dismissed for epistemic reasons. Recall that only the truth of (3) and (4) are required to show that a debate can be dismissed for epistemic reasons, even if (1) and (2) do not hold. So the fact that I have provided some fairly convincing reasons to think that conditions (1) and (2) do not apply to my case study (see p. 67 of this work) is not enough to show that the $\mathcal{T}\text{-}\mathcal{U}$ debate cannot be dismissed for epistemic reasons, and it does not obstruct my final attempt to check whether the $\mathcal{T}\text{-}\mathcal{U}$ debate can be dismissed for epistemic reasons.

4.4. Simplicity. In this section I explore part (3) of Bennett's argument for epistemicism, i.e. the claim that for a debate to be dismissed for epistemic reasons, the views at stake should be equally simple. I am going to argue that difficulties arise when assessing whether \mathcal{T} is simpler than \mathcal{U} or vice-versa. This is important for two reasons. First of all, if I am successful, this removes the last option for epistemic dismissal of this debate. Secondly, this discussion plays a crucial role in my work, because it clearly emerges that the notions of grounding and fundamentality play an important role with respect to dismissivism. I explore the two notions in depth in the next chapter, thus completing the answer to my research question.

The first step of my analysis is an account of simplicity. As Miller highlights, there is no universal agreement about what simplicity is. Miller [2005a, pp. 104-105] says (and similar thoughts in [Miller, 2005b]):

Although there is a generally shared concept of simplicity, and often shared intuitions about what counts as simple, there is no formal definition or account that can be appealed to in determining which of two theories is the more simple. Rather, we tend to have a family of related notions, ranging from the parsimony of ontology, the descriptive length of the theory, the number of adjustable parameters in the theory so forth.[...] Of course, that there is no precisely formulated definition of simplicity is everyone's problem, and all we can do is make use of a workable intuitive understanding of simplicity, in order to decide whether theories are equally simple or not.

I take simplicity to be the combination of quantitative parsimony, qualitative parsimony, and theoretical complexity. This account of simplicity aims at not departing from the features a theory is commonly expected to have to be regarded as simple, i.e. not being committed to an unnecessarily high number of entities, or number of types of entities, and being easy to understand. I would like to highlight two different aspects of theoretical complexity. In one sense, the theoretical complexity of a theory refers to what is needed to describe it. A theory is simpler than another in this respect if it has fewer axioms, assumptions, and primitives. On the other hand, the theoretical complexity of a theory can also refer to the claims made by it, i.e. to its descriptive length. In this respect, a theory turns out to be simpler than another if it can make shorter claims, without losing expressive power and understandability. The constraint on expressive power and understandability is necessary, otherwise a theory could rename complex entities/concepts with logical constants, such as A , B , ... and claim 'If A , then B '. This may be shorter than another theory's claim, because it simply hides the complexity behind labels.²⁸ I will take into account both aspects of theoretical complexity.

A further reason why I include theoretical complexity in my account of simplicity is that quantitative considerations may not be enough to regard one side simpler than the other. As Bennett highlights, often the low-ontology side tries to up-play its expressive powers by using linguistic tools (Bennett [2009, p. 63] calls this 'postulating a certain amount of machinery', and also 'ideology'). In Bennett's case studies there seems to be a relationship between fewer ontological commitments/more ideology on one side, and more ontological commitments/less ideology on the other. A theory that postulates a small ontology, with a complex ideology, may not necessarily end up being more complex overall than a theory that postulates a bigger ontology, with a smaller ideology. For these reasons, I think it will be interesting to explore all three aspects of simplicity I mentioned above.

I have already discussed in section 4.1 (see p. 68) the first aspect of simplicity. I showed that there are different ways to count the entities a theory is committed to.

²⁸See also [Miller, 2005b] and [Devito, 1997, p. 393].

We get different answers to the question of whether \mathcal{U} is more parsimonious than \mathcal{T} depending on whether we count all entities postulated or merely the fundamental entities, and also depending on whether matter is finite or infinite. The nature of matter has nothing to do with the number of types of entities postulated, so counting types of entities yields that \mathcal{U} is less parsimonious than \mathcal{T} . Recall that I also argued that there are no strongly compelling reasons to endorse one counting method over the other.

There are further concerns about the notion of quantitative parsimony in itself. I do not want to delve too far into this issue, because it is not my purpose to make a methodological discussion about the notion of quantitative parsimony. Some hold that there is no agreed-upon definition of what quantitative parsimony is. For instance see [Nolan, 1997, sec. 3]. Nolan tries to formulate the principle of quantitative parsimony, because there is no commonly acknowledged definition of it. Moreover philosophers are still arguing if and why quantitative (and/or qualitative) parsimony are theoretical virtues. This is yet another reason why I should be careful in drawing consequences about dismissivism from reflection on quantitative parsimony. Basically, there is no agreed-upon and tested method to find out how parsimonious theories are in general. Whichever method is devised in the case of \mathcal{T} and \mathcal{U} would inevitably turn out to be *ad hoc*, and may not be applicable to other philosophical views. This may not be a problem though: the tentative method devised for \mathcal{T} and \mathcal{U} may then be refined to be applied more in general.

The second aspect of simplicity, i.e. qualitative parsimony, suggests to compare \mathcal{U} and \mathcal{T} with respect to which types of entities they are committed to, qualitatively speaking. When I focus only on qualitative differences, \mathcal{T} postulates abstract entities (tropes) and concrete entities (particulars), i.e. two qualitative types of entities. \mathcal{U} postulates abstract entities (universals) and concrete entities (particulars), i.e. two qualitative types of entities. If I count in this way \mathcal{U} and \mathcal{T} turn out to be equally qualitatively parsimonious. However, it could be argued that I should compare the two theories with respect to the qualitative differences of their fundamental entities only. If I adopt this line, \mathcal{T} postulates one qualitative type of entity (abstract tropes), while \mathcal{U} postulates two qualitative types of entities (abstract universals and concrete particulars). In this scenario, \mathcal{T} seems to be more qualitatively parsimonious, because it postulates one type of entity only.

In deciding how to assess qualitative parsimony we run into similar issues to those we encountered when deciding how to assess quantitative parsimony. Focusing only on fundamental entities takes into account an important aspect of \mathcal{U} and \mathcal{T} , however it disregards other entities whose existence is acknowledged by \mathcal{U} and \mathcal{T} . Moreover there are other questions that can be raised concerning the relationship between qualitative and quantitative parsimony within the definition of simplicity. Should considerations of qualitative parsimony matter more than considerations of

quantitative parsimony? Should they matter less instead? Should they be just as important?²⁹

For what concerns the comparative theoretical complexity of \mathcal{U} and \mathcal{T} , they have different numbers of assumptions, primitives, and axioms depending on which specific version of those theories one endorses. Since I am here dealing with two models of the theories, rather than specific versions, it is complicated for me to compare them in these respects. Let us turn to the discussion of the second aspect of theoretical complexity, i.e. how brief and easy to understand a theory is (without losing expressive power). For instance, \mathcal{T} claims ‘The table is red because it is a bundle of tropes, including a trope of being a table and a trope of being red’. On the other hand \mathcal{U} claims ‘The table is red because there are a universal of redness and one of tablehood instantiated in this particular’.

There are different ways to compare the theoretical complexity of these two statements. One way is to count the number of words, but that seems daft, since what we are interested in are the propositions expressed by these sentences, rather than the sentences (which only contingently happen to be expressed in English, but could have different lengths in other languages). Another option is to count how many logical tools each sentence uses (variables, constants, well formed formulas), but it is highly dubious why such counting would identify which theory is simpler. A further strategy is to compare the relations which link the fundamental entities of each theory, i.e. compresence and resemblance in the case of \mathcal{T} , and instantiation (or emanation, or participation, ...) in the case of \mathcal{U} . One could argue that the simpler theory is the one with less relations, and since \mathcal{T} needs two relations, while \mathcal{U} needs only one, \mathcal{U} is the simpler theory. It is possible to argue against this strategy by reflecting on the issues faced by each of these relations. All these relations run into troubles, but resemblance and compresence are very intuitive, since the first one refers to the similarity of tropes and the second one groups tropes together depending on their spatial location. Instantiation, on the other hand, is a much

²⁹Philosophers disagree on these questions, for instance Lewis [1973, p. 87] says:

Distinguish two kinds of parsimony, however: qualitative and quantitative. A doctrine is qualitatively parsimonious if it keeps down the number of fundamentally different *kinds* of entity [...] A doctrine is quantitatively parsimonious if it keeps down the number of instances of the kinds it posits [...] I subscribe to the general view that qualitative parsimony is good in a philosophical or empirical hypothesis; but I recognize no presumption whatever in favour of quantitative parsimony.

Lewis here advocates that qualitative parsimony is a more important theoretical virtue than quantitative parsimony. On the other hand Baker [2003] highlights that while many have acknowledged that qualitative parsimony is indeed a virtue, they have also not paid enough attention to how important quantitative parsimony can be as well. Baker argues that (p. 248):

it is rational to prefer quantitatively parsimonious hypotheses, not because quantitative parsimony is a primitive theoretical virtue, but because quantitative parsimony brings with it other independently recognized virtues. In particular, quantitative parsimony tends to increase the explanatory power of hypotheses compared to their less quantitatively parsimonious rivals.

For a fuller discussion of these issues I refer the reader to Lewis’ and Baker’s works.

more mysterious relation, since it links concrete objects to abstract ones. According to this objection, it would be simplistic to assess the simplicity of a theory on the basis of the number of relations it postulates. Such considerations should be supplemented with considerations about the relations themselves.

I am aware that I am not providing any definitive answers to the questions raised in this section. I have not offered any solutions to the issues raised by the analysis of simplicity either. I think two conclusions can be drawn from these remarks:

- (5) Strong conclusion. These remarks show that we cannot find out whether \mathcal{T} is simpler than \mathcal{U} or vice-versa. This removes the last hope of employing Bennett's strategy. If one wants to try to dismiss the debate, one has to look for other options.
- (6) Weak conclusion. These remarks show that the attempt to apply Bennett's strategy to the \mathcal{T} - \mathcal{U} debate raises a number of problems. Such worries encourage to look for other dismissivist strategies.

Although I have sympathies for the strong conclusion, I am aware that I have not provided an argument in favour of it. Only the truth of the weak conclusion is required for the rest of this work.

The rationale behind this analysis of simplicity is to find out whether this debate should be dismissed for epistemic reasons. However my analysis of simplicity showed that a thorough methodological discussion of theoretical virtues is required before any claims about simplicity can be made. This should make us doubt that this dismissivist approach is viable. From this I cannot and I do not want to draw the conclusion that the \mathcal{T} - \mathcal{U} debate cannot be dismissed. Furthermore I do not want to argue that Bennett's method is hopeless in my case study, because it can conceivably yield an answer if properly improved and implemented. However I think the issues just highlighted justify the search for a different type of strategy to find out whether the \mathcal{T} - \mathcal{U} debate can be dismissed (see section 6 and next chapter).

Some may suggest another way to link dismissivism and simplicity and argue in the following way. If simplicity is a theoretical virtue that can be used to find out which of various competing theories is true - the idea being that the simplest is the true one - then difficulties in finding out which theory is simpler are difficulties in finding out which theory is true. In turn some may use this to argue that in such circumstances the debate between competing theories should be dismissed for an epistemic reason, i.e. it is difficult to find out which theory is simpler. This is a valuable suggestion and I have a few comments on it. First of all, although this can be regarded as an epistemic reason to dismiss a debate, note that it is a completely different from Bennett's epistemic reason. The difference is that simplicity is only one of the aspects of Bennett's epistemicist dismissivist strategy, while the suggested line is all about simplicity only.

Secondly, I doubt that the difficulty to assess theories' level of simplicity is a sufficient reason to dismiss the debate about which theory is true. I think linking simplicity and dismissivism in this way is too quick. The first problem with this strategy is that simplicity may not be the only factor in determining a theory's truth. Although it may not be easy to find out whether theory *A* is simpler than theory *B*, it is possible that there are competing reasons that establish the truth of one theory over the other, e.g. its ability to explain certain data. If this remark is correct, then it is wrong to draw the inference suggested above.

A third doubt can be raised by thinking about Bennett's argument in support of epistemicism in her case study. Her conclusion, that the debates about composition and colocation should be dismissed for epistemic reasons, is supported by a thorough analysis of all possible options, and by examining a vast literature on the topic. I do not think philosophers have delved into simplicity as much as they have into the debates about composition and colocation, and thus I think there is a wide scope to improve our understanding of simplicity as a theoretical virtue. For this reason I think it is hasty to infer that issues related to simplicity lead to dismissivism. However, I might be wrong in my diagnosis of the state of the literature on simplicity, and it might be the case that we know that it is hopeless to try and find out which theory is simpler in any given debate. Nonetheless, my first doubt about connecting simplicity and dismissivism as suggested stands and thus I conclude that the failure to find which theory is simpler does not by itself lead to dismiss a philosophical debate.

5. Other ways to dismiss the debate

In this section I turn to looking for a different strategy in order to check whether the \mathcal{T} - \mathcal{U} debate could be dismissed or not. In this section I explore two dismissivist strategies (both inspired by the $3D$ - $4D$ debate) and see how they fare in my present case study. I argue that the first strategy may be successful, but needs to be developed appropriately to meet some difficulties, and that the second one fails.

To start with I would like to discuss the argument Hofweber and Velleman [2010] run. Hofweber-Velleman argue that the two versions of $3D$ and $4D$ they formulate may be compatible (see previous chapter, section 2.3, p. 40). This means, according to them, that it is not the case that objects are either $3D$ or $4D$ but rather that the two views are compatible. Some objects are three-dimensional, while others are four-dimensional. The question spontaneously arises whether something similar could be the case for \mathcal{T} - \mathcal{U} .³⁰ The questions are: could it be the case that

³⁰Lewis [1986, p. 202] acknowledges a similar possibility:

There might be mixed cases: entities that persist by having an enduring part and a perduring part. An example might be [...] an electron that had a universal of unit negative charge as a permanent part, but did not consist entirely of universals.

some objects are composed of tropes, while others instantiate universals? Could it be the case that both tropes and universals exist? Is the existence of universals incompatible with the existence of tropes?

Let us recall why *3D* and *4D* are taken to be compatible by Hofweber-Velleman. They argue that an ontology that postulates both three-dimensional objects and four-dimensional objects has theoretical advantages over an exclusively *3D* (*4D*) ontology. A mixed ontology can describe change of different types of objects better, while *3D* (*4D*) can describe well the change of some objects but not others. A mixed ontology can also describe how objects persist in a way that fits different types of objects better, while adopting only *3D* (*4D*) is not as successful (see the previous chapter for a more detailed discussion).

The nature of the problem in the *3D-4D* debate is very different from the problem in the $\mathcal{T}\text{-}\mathcal{U}$ debate. In the former case, the attempt to apply *3D* and *4D* to different objects makes it clear (according to Hofweber-Velleman) that different things change in different ways and that different issues are at stake in different cases. For instance, what matters in the persistence and change of a person is very different from what matters in the case of persistence and change of a table, since a person has psychological features the table does not have.³¹ In the latter debate, the analysis of how things have properties does not seem to lead to similar considerations. It does not seem that different things have properties in different ways. Take a tall person and a tall building, nothing pushes us to think that they have the property of being tall in different ways that require different explanations. While it is clear in the *3D-4D* case, which things are best described in *3D* terms and which are best described in *4D* terms, in the $\mathcal{T}\text{-}\mathcal{U}$ case it is not at all clear why some objects would be best described as being composed of tropes, rather than instantiating a universal.

A different way to adapt Hofweber-Velleman's approach to my case is to argue that while some types of properties are universals, other types of properties are tropes. Lewis [1983b] suggests that 'the world's universals should comprise a minimal basis for characterizing the world completely' (p. 346) while all other non-fundamental properties of the world are simply 'classes of things' (p. 343). Lewis never mentions tropes, but it is natural to use his remarks to develop a Hofweber-Velleman style argument to say that fundamental properties (those that 'ground the objective resemblances and the causal powers of things', see [Lewis, 1983b, p. 345]) are universals, while the non-fundamental ones (such as 'being made of wood' or 'being a cat') are tropes. This line of thought is much more reasonable than the one according to which some objects have properties in virtue of having tropes while others do in virtue of instantiating universals. However I would like to say

³¹The reason why I worry about the difference between people and inanimate objects is that many think that *3D* and *4D* have the pressing task of explaining psychological continuity and persistence. Moreover, this is also the easiest example to see how things can persist in different ways.

more about how a ‘mixed-ontology’ scenario would work.

Universals and tropes play, in the respective ontologies, the same explanatory role. If one takes tropes to explain how property attribution works, universals would seem to be idle entities, and vice versa. This is for the following reasons: (a) one needs a story about why some objects have properties in virtue of having tropes, while others have them in virtue of instantiating a universal; one in turn needs a story about how to distinguish objects of the first ‘type’, from objects of the second ‘type’ (individuation criteria); (b) if one can answer to (a), one still needs a story about why it is good to be committed to the existence of two types of objects rather than one; (c) one needs a story about what is fundamental in such an ontology, if both tropes and universals are fundamental, then some explanation is required why the fundamental entities are not all of the same type. As Hofweber-Velleman describe the advantages of a mixed $3D+4D$ ontology, our hypothetical philosopher needs to present the advantages of a mixed tropes-universals ontology.

A further option is that objects have properties in virtue of having tropes (universals), while universals (tropes) play the role of explaining something else. Lowe [2006] famously tried to build an ontology that postulates both tropes and universals, assigning them different roles. Lowe [2006, p. 123] argues in favor of a four-category ontology, which he presents as follows.

According to this ontology, there are both universals and particulars. Particulars fall into two distinct categories: individual substances on the one hand and modes (or tropes) on the other, with substances being [...] ontologically independent entities while modes are ontologically dependent upon the substances which are their ‘bearers’. Equally, universals fall into two distinct categories: substantial universals, or kinds, and non-substantial universals, or properties. [...] Individual substances are particular instances of substantial universals, or kinds, while modes are particular instances of non-substantial universals, or properties.

Lowe runs several arguments to show that his proposed ontology is not redundant, i.e. it does not postulate more entities than necessary. Basically he shows that every entity in his ontology plays an explanatory role, thus justifying its existence. Lowe argues that the presence of particulars in his ontology is justified by the following remark (p. 23):

perception, it would seem, is necessarily of particulars, since only particulars can enter into causal relations or literally possess causal powers - and perception necessarily involves a causal relation between the perceiver and what is perceived.

Furthermore he argues that the presence of universals in his ontology is justified by the need to account for laws of nature (p. 28-29):

The argument that I have in mind is one which contends that the ontological status of natural laws can be properly understood only if one acknowledges the existence of universals. The gist of this argument is that an opponent of universals can at best represent natural laws as consisting merely in universal constant conjunctions amongst particulars, which reduces those laws to nothing more than cosmic coincidences or accidents. The remedy, it is then proposed, is to regard natural laws as consisting in relations between universals rather than in constant conjunctions amongst particulars.

It is not obvious that this view is tenable. The philosopher who wants both entities and who cares about Occam's razor has their work cut out showing that both types of entities are needed. In particular a pressing question for Lowe is why scientific considerations (such as laws and perception) lead to postulate universals and particulars. However my purpose here is not assessing whether Lowe can answer all possible objections. His position is important because it is one of the very few attempts made at building an ontology that postulates both universals and tropes. His strategy parallels Hofweber-Velleman's.³² Lowe shows how universals alone are not able to explain everything, and how tropes alone are not able to explain everything, but when we put them together we get a nice and smooth picture. If his arguments go through, he shows that tropes and universals are compatible entities, i.e. having one in your ontology does not automatically exclude having the other one as well.

If Lowe's approach works, the question can be raised whether it is a way to dismiss the \mathcal{T} - \mathcal{U} debate. In chapter two I argued that although [Hofweber and Velleman, 2010] is not strictly speaking a dismissivist approach, it displays dismissivist traits. Given the structural similarity between Lowe and Hofweber-Velleman's views, I would like to run a similar argument for Lowe as well. Lowe shows that the debate seems to be about x , i.e. about which between \mathcal{T} and \mathcal{U} is right, but it turns out that it is actually about y , i.e. about which roles tropes and universals

³²I would like to add two remarks on the relationship between Lowe's and Hofweber-Velleman's approaches, because there is an analogy between Lowe's main claim and Hofweber and Velleman [2010]'s claim. I will be brief on this, since it falls out of the scope of the chapter.

Firstly I want to highlight the rationale and motivation behind the two views. What triggers Hofweber-Velleman's approach is that some objects are quite clearly better described in $3D$ rather than $4D$ terms or vice-versa. On the other hand, with tropes and universals it is not the case that \mathcal{T} works better for some objects than others, for instance it does not seem that \mathcal{T} describes how people have properties better than it describes how desks have properties. Rather, it may be the case that \mathcal{T} (\mathcal{U}) works better than \mathcal{U} (\mathcal{T}) to explain, e.g., property attribution, while it is the other way around when it comes to laws of nature. This is what triggers Lowe's approach.

Secondly, the two approaches are analogous for what concerns the challenges they face. I have highlighted a possible challenge for Lowe's view, in that he has to show why it is best to adopt his apparently redundant ontology. Similarly Hofweber-Velleman have to show why it is best to have both $3D$ and $4D$ objects, rather than only one type of object. This is not the main focus of this section, but to be fair to Hofweber-Velleman they partly address this issue when they show how much smoother their version is and how objects can be described much better having both $3D$ and $4D$ at hand, rather than one only.

play. According to him \mathcal{T} and \mathcal{U} are compatible. Note that this mirrors closely what I have said about Hofweber-Velleman in chapter two. Nonetheless, Lowe (as Hofweber-Velleman) is definitely dismissivist in spirit when he shows that there is something wrong in the way the disagreement between \mathcal{T} and \mathcal{U} is normally interpreted, and this is the reason why I decided to include a discussion of his view here.

Some may point out that my decision not to challenge Lowe's approach is a flaw in my argumentative strategy. If Lowe is in fact right about the compatibility of \mathcal{T} and \mathcal{U} , then my search for reasons to dismiss this debate is over and I cannot hope to use this debate to say anything interesting about dismissivism in general. For this reason, the objection goes, I should show that Lowe is wrong before continuing. I disagree with this objection because it relies on the assumption that Lowe's theory is a way to dismiss the \mathcal{T} - \mathcal{U} debate. I reply that considering Lowe's work as a dismissivist approach to the \mathcal{T} - \mathcal{U} debate is only one of the possible interpretations. Rather, I think that Lowe is articulating a new philosophical view, according to which \mathcal{T} and \mathcal{U} are compatible. I have argued that this is not a way to dismiss the debate, but rather puts a third option on the table: one can either endorse \mathcal{T} , or \mathcal{U} , or Lowe's mixed view. If this is right then it is not pressing for me to show that Lowe's view is wrong,³³ because it bears no relevance to my project of trying to dismiss the \mathcal{T} - \mathcal{U} debate. More generally, Lowe challenges the \mathcal{T} - \mathcal{U} debate in a very different way from me. What I am trying to get out of the analysis of this debate are some insights into the differences existence and grounding bear with respect to dismissivism. His view is not very illuminating in this respect and this is the reason why I can leave it aside and keep going with my strategy.

The second dismissivist try comes from a deeper reflection on two dismissivist approaches I explored in the $3D$ - $4D$ case ([McCall and Lowe, 2006]'s and [Miller, 2005a]'s) which argued that $3D$ and $4D$ are intertranslatable. I now try to use some of the remarks of [Putnam, 1983]'s second chapter ('Equivalence') to see if \mathcal{U} and \mathcal{T} are intertranslatable. Putnam [1983] argues for the view that theoretical systems which are, taken literally, incompatible can still be cognitively equivalent. In order for two theories T_1 and T_2 to be equivalent they have to be:

³³In addition, it is worth noting what Armstrong thinks of such a view, [Armstrong, 1989, p. 132]:

A brief note on the position that admits both tropes and universals, with tropes being typed by their instantiating of universals. We have already seen (Chapter 5, Section I) that this might be an appropriate standpoint for those who think of universals as dwelling in a separate realm from the space-time realm. For then the tropes will break up the blob of a particular, and turn it, more plausibly, into a layer cake. But if one rejects universals in a separate realm, thus rejecting uninstantiated universals and bringing universals down to earth, presumably as attributes of substances (particulars), then either the universals or the tropes are redundant. Either get rid of universals and, perhaps, embrace a trope version of Resemblance Nominalism or else cut out the middlemen, namely, the tropes.

Since my purpose here is not to assess whether Lowe's view is consistent I am not going to delve into a critical discussion of its pros and cons.

- (α) complete (a theory is complete if it is consistent and none of its extensions is consistent);
- (β) mutually relatively interpretable (where ‘relatively interpretable’ is the requirement that ‘there exist possible definitions of the terms of T_1 in the language of T_2 with the property that, if we translate the sentences of T_1 into the the language of T_2 by means of those definitions, then all theorems of T_1 become theorems of T_2 ’ (p. 38));
- (γ) ‘the -translation- of each into the other preserves the relation of *explanation*, and *the same phenomena are explained by both*’ (p. 39)

In order to check whether \mathcal{U} and \mathcal{T} fulfill these requirements I have to formalize the two theories. First of all, I assume completeness of both theories for the sake of simplicity. For instance, a formalization of \mathcal{U} could look like this:

- *Primitives.* Rules of logic. The concept of universal. The concept of particular. The concept of instantiation.
- *Axioms.* There exist universals. There exist particulars.

This is only a rough start. The formalization is completed after the theorems of \mathcal{U} are derived.

Having stipulated that (α) holds, I now argue that requirement (β) is not satisfied by \mathcal{T} and \mathcal{U} and that I cannot translate all theorems of \mathcal{T} into \mathcal{U} . I prove this with a counterexample. Let us take the following interdefinitions of terms of the two theories. Let ‘particulars’ be defined as ‘bundles of tropes’. Let ‘universals’ be defined as ‘resemblance classes of tropes’. An axiom of \mathcal{U} is that there are particulars. Through the definitions just provided this translates perfectly into an axiom of \mathcal{T} , i.e. ‘There are bundles of tropes’. Now let us take the following theorem of \mathcal{U} , i.e. ‘Particulars have properties because they instantiate universals’. In order to translate this I have to provide a translation for ‘instantiate’ (or whatever other version of instantiation one wants to use in \mathcal{U}). For instance ‘ x instantiates y iff x contains an element of some resemblance class’. I can thus translate the example just presented as: ‘Bundles of tropes have properties because they contain an element of some resemblance class’. Let us check whether this translation always allows us to switch from true theorems of \mathcal{U} to true theorems of \mathcal{T} . Take the true theorem of \mathcal{U} : ‘Different particulars can instantiate the same universal’. The translation yields: ‘Different bundles of tropes can contain an element of the same resemblance class’. The translation loses the fact that tropes are non repeatable entities, i.e. no two bundles can contain the same trope. This seems to be a counterexample to the possibility of using Putnam’s strategy to intertranslate the two positions.

However more careful analysis shows that the problem lies in the choice of translation for ‘instantiate’. A better translation than the one suggested is: ‘contain an element of a resemblance class, provided such element belongs to one bundle only and no other bundle’. This translation correctly transforms \mathcal{U} ’s ‘Different particulars can instantiate the same universal’ into \mathcal{T} ’s: ‘Different bundles of tropes

can contain elements of the same resemblance class, provided such element belongs to one bundle only and no other bundle’.

Nonetheless, I can show that Putnam’s style intertranslation is ultimately unsuccessful, because I cannot translate theorems about what is fundamental in one theory into true theorems about what is fundamental in the other. The grounding roles universals and tropes play in the respective frameworks are not preserved by the translation. \mathcal{U} has theorems such as ‘Universals and particulars are fundamental’. If I try to translate this in tropes terms, using the substitutions suggested above, I obtain: ‘Resemblance classes of tropes and bundles of tropes are fundamental’. This is not a theorem of \mathcal{T} , because neither resemblance classes of tropes nor bundles of tropes are fundamental, only tropes are. In this case it is not possible to find a better translation.

One might raise an objection against this diagnosis and argue that the reason why it is not possible to intertranslate between these theorems has nothing to do with fundamentality, but rather it has to do with the fact that \mathcal{U} fulfills its explanatory role by using two types of entities (universals and particulars) while \mathcal{T} fulfills its explanatory role by using one type of entity only (tropes). The difficulty in intertranslating seems to be due to the types of entities involved, rather than their fundamentality status.

However I do not think this objection is right. \mathcal{T} does acknowledge the existence of concrete particulars, as \mathcal{U} does, but \mathcal{T} , contrary to \mathcal{U} , does not take them to be fundamental. This is the reason why concrete particulars do not play any explanatory role in the theorems that describe \mathcal{T} , even though particulars belong to \mathcal{T} ’s ontology. The explanatory role is played by tropes. For instance, why do things have properties? Because tropes are compresent. Why do things resemble each other? Because they have tropes that resemble each other. In the case of \mathcal{U} instead, concrete particulars play explanatory roles together with universals. For instance: why do things have properties? Because particulars instantiate universals. Why do things resemble one another? Because different particulars can instantiate the same universal. Whatever you ask to the tropist, only tropes will appear in his answers, whereas when you ask questions to the universalist he will respond with universals and particulars. These remarks highlight that particulars play a fundamental role in the ontology of \mathcal{U} , while they do not in \mathcal{T} . This shows that the difficulty met while attempting an intertranslation is not due only to the types of entities involved, but to how fundamental the role they play is.

6. Moving forward

This chapter highlighted not only the problems raised by the attempt to apply Bennett’s strategy to the \mathcal{T} - \mathcal{U} debate, but also that other dismissivist strategies are unsatisfactory. The challenge now is to find a further dismissivist strategy, different from the ones already discussed. There is a feature of the \mathcal{T} - \mathcal{U} debate, which I think

looks promising in this respect, i.e. the notions of grounding and fundamentality. That \mathcal{T} and \mathcal{U} make different claims about what grounds what has an interesting effect on two dismissivist attempts I discussed. First of all, it is the reason why an intertranslation *à la* Putnam is not possible. Moreover it heavily complicates matters when it comes to comparing quantitative and qualitative parsimony. This makes me suspicious that maybe the notions of grounding and fundamentality determine or influence whether a debate can be dismissed or not. I thus raise the following question:

- do claims about what grounds what make it more difficult or easier to dismiss the debate?

It is important to highlight two aspects of this claim.

- (7) Differences in what \mathcal{U} and \mathcal{T} take to be fundamental make the debate more difficult to dismiss than it would be if \mathcal{U} and \mathcal{T} made similar claims about what is fundamental.
- (8) The notions of fundamentality/grounding in themselves (regardless of the specific claims \mathcal{U} and \mathcal{T} make) make the debate tougher to dismiss, than it would have been if \mathcal{U} and \mathcal{T} did not use these notions at all.

To clarify this difference, take the intertranslation attempt as an example. Differences in the claims \mathcal{T} and \mathcal{U} make about what is fundamental obstruct the intertranslation between the two theories, and thus in turn obstruct one potential strategy to dismiss the debate. This is an instance of claim (7), but not (8). For me to argue for (8) in this case I have to show that the very notions of grounding and/or fundamentality are the reason why I cannot intertranslate, rather than specific claims made by each view. The analysis of the general role of grounding and fundamentality carried out in the next chapter will show that (8) holds.

To sum up, what I hope to have highlighted in this chapter is that Bennett's dismissivist strategy and other common dismissivist strategies, which have all proven more successful, or more promising in other cases, do not yield compelling results here. Many issues are faced due to the role grounding plays in this debate. Grounding seems to be the crucial feature which distinguishes this case study from other debates. This requires further analysis in order to reach a final conclusion whether the debate can be dismissed or not. The next chapter will investigate which general role grounding plays with respect to dismissivism.

Dismissivism and Grounding

Introduction

This chapter gives a final answer to the research question, i.e. what is the difference between the possible options available for dismissing debates about what there is and the possible options available for dismissing debates about what grounds what. In particular I delve into the second part of this question, focusing on the notion of grounding. I mainly focus on the claim that debates about what grounds what (for instance, the \mathcal{T} - \mathcal{U} debate) should be dismissed. In this chapter the influence of [Bennett, 2009] is smaller than in the previous chapters because Bennett does not address the problem of grounding. Therefore, I will only marginally refer to Bennett, and I am going to tie all the loose strings together with the help of the analysis carried out so far.

This chapter is divided into two parts. In the first part (section 1) I briefly recall and summarise what the analysis of my case studies brought to light. This raises a few questions concerning the relationship between the two case studies, which I will address at the end of the first part. In particular I focus on the similarities and differences between the two case studies and discuss how these are relevant to answer important questions about dismissivism in metaphysics. This discussion highlights that it is not entirely clear whether anything general can be said about the relationship between grounding and dismissivism, and this motivates a more detailed analysis of grounding. In the second part (section 2) I focus on the notions of grounding and fundamentality. I briefly survey the literature in order to clarify what these notions mean. This survey shows that philosophers have different ideas about what grounding is. I explore these differences in detail and discuss various problems related to grounding. From this I conclude that debates about what grounds what should be dismissed.

1. Comparison between \mathcal{T} - \mathcal{U} and $3D$ - $4D$

In chapter two I discussed $3D$ and $4D$ by presenting three dismissivist approaches, according to which the debate can be dismissed for different reasons. According to McCall and Lowe [2006], $3D$ and $4D$ are intertranslatable, and there is no fact of the matter which theory one chooses to describe the world. According to Miller [2005a], the two views are metaphysically equivalent, because they are intertranslatable and have the same theoretical virtues. Lastly Hofweber and Velleman [2010] argue that

the two views are compatible, contrary to what most other authors involved in the debate think.

In chapter three I analysed the \mathcal{T} - \mathcal{U} debate. The most important outcome of that chapter is that it shows that answering questions such as the following ones is highly problematic, because of the role the notion of grounding plays in the debate: Is \mathcal{U} simpler than \mathcal{T} ? Can the debate be dismissed? It is always grounding that appears in the explanation why we cannot give a definite answer to these questions, or why the reasons to argue for possible answers are weak.

The starting question of this section is:

- why does the $3D$ - $4D$ debate seem easier to dismiss than the \mathcal{T} - \mathcal{U} debate?

I think that the best strategy to answer this question is to compare in detail the two case studies. My hope is that this analysis will bring to light important connections between grounding and dismissivism.

In the previous chapter I compared \mathcal{U} and \mathcal{T} with respect to what they think exists, is abstract or concrete, and is fundamental.¹ Moreover I also tried to find out which theory is more parsimonious (without reaching a final answer). I would like to carry out this analysis in the case of $3D$ and $4D$ as well, and it is important to understand the reason why I am doing so. In the case of \mathcal{T} - \mathcal{U} , the reason why I analysed the disputants in these respects is because I was trying to find reasons to/not to dismiss the debate. On the contrary, in the case of $3D$ - $4D$ I am not exploring further reasons to/not to dismiss the debate, nor am I applying Bennett's dismissability test to this debate here, but rather I restrict my attention to the three dismissivist approaches previously discussed ([McCall and Lowe, 2006], [Miller, 2005a], [Hofweber and Velleman, 2010]). Comparing $3D$ and $4D$ in these respects allows me to compare the $3D$ - $4D$ debate to the \mathcal{T} - \mathcal{U} debate on similar grounds, and this will bring to light some important general considerations about the relationship between grounding and dismissivism.

For what concerns grounding and fundamentality, the $3D$ - $4D$ debate does not focus on the problem of grounding. The main explanatory task of this debate is to explain how objects persist through time. The notion of grounding does not seem to be needed to fulfill such task. The vast majority of $3D$ and $4D$ philosophers do not make any claims about what grounds what or about what is fundamental in their ontologies. For instance, Lewis [1983a] is one of those who prefer to remain neutral whether temporal parts ground four-dimensional objects or not (p. 77):

[...] When I say that persons are maximal R-interrelated aggregates of person-stages, I do not claim to be reducing “constructs” to “more basic entities”. (Since I do not intend a reduction to

¹Recall that I chose to compare the two views in these respects in order to be aware of the most important similarities and differences between them. Although the ultimate purpose of this was to check if Bennett's dismissability test could be applied to this debate, the choice of fields of comparison is mine and not due to Bennett.

the basic. I am free to say without circularity that person-stages are R-interrelated aggregates of shorter person-stages.) [...] I do not think of this as a reduction to the basic.

On the other hand, one of the important differences between \mathcal{U} and \mathcal{T} is that they make different claims about what grounds what and about what is fundamental. Moreover, \mathcal{U} encompasses two fundamental types of entities, while \mathcal{T} encompasses only one. In this respect the two case studies are thus very different.

Secondly, I want to compare 3D and 4D with respect to their ontological commitments. As highlighted in chapter two, 3D and 4D share a general commitment to concrete objects, however they disagree on which concrete objects exist. 3D argues that medium sized dry goods exist and that temporal parts do not exist, while 4D argues that temporal parts exist and that ordinary objects are mereological sums of them. It is important to note that mereological sums of temporal parts are not the same as 3D's medium sized dry goods. They have different natures: 4D objects are composed of temporal parts, while 3D objects are not. For this reason I think that 4D's ontology \neq 3D's ontology + temporal parts. Recall that in chapter three I argued that \mathcal{U} 's ontology \neq \mathcal{T} 's + x . It thus seems that in this respect the 3D-4D debate is similar to the \mathcal{T} - \mathcal{U} debate.

A third point of comparison between the two case studies concerns abstractness. 3D and 4D are both committed to the existence of concrete entities (medium sized dry goods on one side, temporal parts on the other). They are not committed to the existence of abstract entities. On the other hand, \mathcal{U} and \mathcal{T} are committed not only to the existence of different entities (universals on one side, tropes on the other), but also to the existence of different qualitative types of entities (I have argued that universals are concrete, at least according to some interpretations, while tropes are abstract; see p. 57 of this work for more details).

The reason to present all these remarks is to come to a discussion of parsimony. In the previous chapter I presented different strategies to figure out whether \mathcal{U} is more parsimonious than \mathcal{T} or vice versa. Now I would like to do the same in the case of 3D and 4D, in order to complete the comparison between the two case studies. A discussion of parsimony is important for dismissivism, because an equal level of parsimony can be regarded as an initial reason to suspect that a debate should be dismissed.

For what concerns quantitative parsimony, we cannot know how many objects 3D encompasses, until science finds out whether matter is infinite or infinitely divisible. 4D is committed to the existence of a number of temporal parts which

is as high as the cardinality of the continuum (2^{\aleph_0}).² Thus regardless of whether the number of *3D* objects is finite or infinite, it is less than the number of temporal parts. This means that *3D* is more quantitatively parsimonious than *4D*. For what concerns qualitative parsimony, *3D* and *4D* both acknowledge the existence of concrete entities only. No abstract entities figure in the list of what there is according to either view. Some three-dimensionalists might say that temporal parts are qualitatively different from persisting things, but four-dimensionalists would strongly disagree with this claim. As discussed in chapter two, persisting things made of temporal parts are mereological sums of them, and are nothing over and above them. To be a four-dimensional object is simply to be a sequence of temporal parts. Thus I think there is a strong case to take *3D* and *4D* as equally qualitatively parsimonious.

These remarks create a contrast between my case studies. *3D-4D* is an example of a debate about what there is, that does not involve the notion of grounding, for which it is easy to assess quantitative and qualitative parsimony, and that can, according to many, be dismissed. *T-U* is an example of a debate about what there is and what grounds what, that involves the notion of grounding, that is not dismissable in any obvious way, and for which it is extremely complex to assess quantitative and qualitative parsimony. If these remarks are correct, they should raise interest in the following issues:

- (1) since the *T-U* debate is difficult to dismiss because of the notion of grounding, maybe other debates that involve the notion of grounding are difficult to dismiss as well;
- (2) traditional dismissivist techniques explored so far do not succeed in assessing whether a debate involving the notion of grounding can be dismissed or not;
- (3) in general if a debate involves the notion of grounding, then it cannot be dismissed;
- (4) in general if a debate can be dismissed then it does not involve the notion of grounding.

It is interesting to think why some may expect such claims to be true. The reason I think lies in the explanatory role we have seen grounding play in the *T-U* debate. I have presented a number of examples in which grounding is the reason why *U* and *T* cannot be compared in some respects, or why they cannot be inter-translated, and in turn I argued that these are reasons why the *T-U* debate is difficult to dismiss. The reasoning behind such claims is the following: if grounding obstructs dismissivist attempts in the *T-U* debate, it will obstruct dismissivist attempts in other debates where it plays a role. The idea underlying this is that if something

²This statement rests on the assumption that time is continuous and not discrete. Physicists debate about this, focusing in particular on Planck Time, but this is no place for delving into details about this.

plays an explanatory role in a certain field, it will carry the same explanatory role in a different field.

I now turn to discussing these remarks, by analysing a new hypothetical debate, i.e. a version of the $3D\text{-}4D$ debate in which I modify the definitions of three and four dimensionalism by adding claims about what grounds what. This is an interesting plan, because if it turns out that grounding makes the new version of $3D\text{-}4D$ tougher to dismiss, this will shed some light on the role of grounding in dismissivism. My conclusion is that none of these apparently plausible claims is true, by arguing that the new version of the $3D\text{-}4D$ debate is a counterexample to them. I am going to show that this new version of the debate can be dismissed without difficulty by using traditional dismissivist techniques, although it involves the notion of grounding.

1.1. $3D\text{-}4D$ and grounding. In this section I formulate a new version of the $3D\text{-}4D$ debate in which the two disputants make claims not only about what there is, but also about what grounds what. Some might think that rephrasing the debate in such a way is an artificial academic exercise, because $3D$ and $4D$ do not normally discuss grounding issues. I disagree with this objection, because even if the new debate I discuss does not exist in the literature, it is still an interesting debate and it achieves the more general purpose to check the truth of claims that are important to understand dismissivism in metaphysics. To support my plan even further it is interesting to note that Fine [2012] thinks that the only way to understand the debate between $3D$ and $4D$ is if both views involve the notion of grounding (p. 42):

How are we to distinguish between a three- and four-dimensionalist view of the nature of material things? The distinction is often put in terms of the existence of temporal parts [...] But even the three-dimensionalist might be willing to admit that material things have temporal parts. For given any persisting object, he might suppose that ‘in thought’, so to speak, we could mark out its temporal segments or parts. But his difference from the four-dimensionalist will then be over a question of ground. For he will take the existence of a temporal part at a given time to be grounded in the existence of the persisting object at that time, while his opponent will take the existence of the persisting object at the time to be grounded in the existence of the temporal part. Thus it is only by introducing the notion of ground that this account of the difference between the two positions can be made at all plausible.

This view contrasts with Sider [2001]’s thought about fundamentality in the $3D\text{-}4D$ debate (p. 60):

Four-dimensionalism as I have stated it merely implies the existence of temporal parts. It does not imply that temporal parts are in any sense prior to or more fundamental than the objects

of which they are parts. Nor does it imply that objects are ‘constructed’ from their temporal parts. Nor does it imply that identity over time is reducible to temporal parts. [...] These questions of priority and reducibility are important questions about temporal parts, but they must be separated from the more basic question of whether temporal parts exist at all, which is my primary concern.

The difference between Fine and Sider is that the former thinks that it is possible for *3D* to accept the existence of temporal parts, and if this happens the only way to distinguish between the two views relies on the different claims they make about what grounds what. *4D* takes temporal parts to be more fundamental than the object they compose, while *3D* takes the persisting object to be more fundamental than the parts it is composed of. On the contrary, Sider thinks that the crucial point of disagreement between *3D* and *4D* is the existence of temporal parts. The former thinks they do not exist, while the latter thinks they do. Sider does not think it is possible for *3D* to accept the existence of temporal parts. For Sider, the question of what grounds what comes after it has been established what the two theories think exists.

I here delve into Fine’s point of view. The first task is to formulate new definitions of *3D* and *4D* according to which they make claims about what is fundamental. I am not trying to explore all possible ways in which fundamentality can play a role in this debate, but rather I restrict my attention to [McCall and Lowe, 2006], [Miller, 2005a], and [Hofweber and Velleman, 2010]. In order to understand whether and how the possibility of dismissing a debate is affected by the notion of grounding I analyse again these three works. For each approach I take its original definitions of *3D* and *4D* and edit them to include the notion of grounding. Then I check whether the original dismissivist argument, or a suitable modification of it, goes through.

McCall and Lowe [2006] works with Lewisian definitions of *3D* and *4D*. I can introduce fundamentality into them as follows (adaptation from pp. 571-572, original emphases):

To *perdure* is to have temporal parts and temporal parts ground
4D objects.³
3D objects [...] *exist at more than one time* and sets of particles
ground them.

McCall and Lowe argue that fundamentality-free versions of *3D* and *4D* are genuinely different views, which make different claims. They argue that there is a linguistic method (an intertranslation) to switch from the *3D*-way of speaking to

³Another way to introduce the notion of fundamentality in perdurantism is to say: to perdure is to have temporal parts and perduring objects are more fundamental than the parts they are composed of. Which version is endorsed does not make a difference to my argument here.

the 4D-way of speaking, and that there is no fact of the matter which position one should endorse. They argue for this not in the epistemic sense, i.e. it is not the case that one view is right while the other is wrong but we cannot know which is which. Rather they think that we should not fuss about whether 3D or 4D is correct, because they are compatible stances.⁴

I would now like to explore whether this argument can go through even if we take the new fundamentality-loaded definitions of 3D and 4D I formulated. To answer this question two steps are required. First of all I need to show what it is needed for the argument to go through in the fundamentality-free case. Secondly I need to show that the addition of fundamentality does not obstruct the argument. Let us thus explore why the intertranslation works in the fundamentality-free case. The reason why one can switch from one way of talking to the other one is because a set of particles that constitutes an instantaneous 3D object is ‘similar’ (p. 573) to an instantaneous temporal part of a 4D object. This strategy works with temporal parts and sets of particles. These are the building blocks of the 4D and 3D ontologies respectively. Temporal parts and sets are required by the translation in that one can ‘swap’ from one to the other: a temporal part can be seen as a set of particles and vice versa. This allows one to move from the 3D way of describing the world, to the 4D way of describing it. In all this there is no mention of fundamentality or grounding. The translation only needs the existence of temporal parts and sets in order to work. The first point is thus answered.

The second step requires me to check that the addition of fundamentality does not block the intertranslation. This step is necessary because that the intertranslation does not require temporal parts and sets to be fundamental does not imply that their being fundamental has no consequences for the argument. The best way to explore this is to apply McCall-Lowe’s intertranslation to the new definitions of 3D and 4D and see if it goes through. The crucial step of the intertranslation is the similarity between a set of particles at a time and a temporal part. If we take the new definitions of 3D and 4D, sets of particles are fundamental and ground the existence of enduring objects, while temporal parts are fundamental and ground the existence of perduring objects. The similarity of these two objects consists in the fact that they are the picture of an object at time t . Take for instance a red chair and suppose it is possible to take an instantaneous frame of it to show how the red chair is at an instant t_1 . In 3D terms this frame is a set of particles, atoms and molecules, that is an instantaneous 3D object at t_1 , while in 4D terms the frame is a temporal part at t_1 . Whether the set and the temporal part then also play a grounding role in the respective ontologies does not undermine the similarity between them. It seems that these entities can play the role they are required to play by the intertranslation whether they are fundamental or not. Thus McCall-Lowe’s argument seems to go through even with the fundamentality-loaded versions. This

⁴For the argument in full detail see section 2.1, on p. 26.

implies that if someone thinks that the argument does not go through in the fundamentality-loaded case, this happens not because of fundamentality but because other flaws that would affect the fundamentality-free argument as well.

Some may point out that there are other ways to cash out the fundamentality-loaded versions of 3D and 4D. For instance, in the 4D case one could take perduring objects as more fundamental than the parts they are composed of, which is the opposite of how I formulated 4D above. This is an important observation because it could be the case that some definitions of fundamentality-loaded 3D and 4D do not affect McCall-Lowe's strategy, while others do. I have two replies to this. First of all, the fundamentality-loaded definitions above have not been picked in an *ad hoc* way to suit my purposes, but rather they have been chosen because they follow and make explicit McCall-Lowe's inclination. On page 574 they say:

For the 4D ontologist [instantaneous 4D temporal parts] are primitive and basic;

This suggests a natural way to make the role of fundamentality explicit in the definitions of 3D and 4D and I simply took this suggestion on board.

Secondly I do acknowledge that different ways to introduce fundamentality may have different outcomes on the effectiveness of McCall-Lowe's dismissivist strategy. However my purpose here is to present at least one counterexample to claim (3) introduced above, i.e. 'in general if a debate involves the notion of grounding, then it cannot be dismissed' (see p. 96). All I want to show, and hope to have shown here, is that it is not automatic that the addition of fundamentality to a debate makes it non-dismissable. The case I discussed is a clear instance of this.

In [Miller, 2005a]'s case things are more complex. In the fundamentality-free case her claim is that 3D and 4D are talking past each other on the meaning of the word 'part' and that there is a more metaphysically basic sense of 'having a part in a temporally modified manner' (for short, part_{mb}) which both 3D and 4D fail to acknowledge. Miller then shows that 3D and 4D can both be understood in terms of part_{mb} . This means that 3D and 4D are intertranslatable, because they can both be formulated in terms of part_{mb} . Let us check whether Miller's intertranslatability proof still goes through, if we use the fundamentality-loaded versions instead. The new definitions would be something like (adapted from [Miller, 2005a, p. 100]):

3D: An object endures iff it is wholly present at each moment at which it exists, where an object is 'wholly present' at a time just in case all of its parts are present at that time and where ' P is part of O ' is true at any time t iff at t , P is part_{mb} of O tly. Enduring objects are fundamental, because they are ungrounded and ground everything else.

4D: An object O perdures iff it is the mereological fusion of temporal parts, where x is an instantaneous temporal part of y at t iff x is part of y and x exists at, but only at t and x

overlaps every part of y that exists at t . Temporal parts ground $4D$ objects.⁵

It is complex to see how Miller's dismissivist strategy is affected by the presence of fundamentality for various reasons. First of all, Miller's account is two-faceted. One part of it is dismissivist (in the sense of the word I described in chapter one), when she shows that the two views are on a par with respect to their theoretical virtues (empirical equivalence, explanatory powerfulness, simplicity). The other part is not strictly speaking dismissivist (as argued in chapter two, 2.2, p. 34), but rather it offers a new view, according to which parts_{mb} exist. Now I am trying to see how the introduction of fundamentality in the definitions of $3D$ and $4D$ affects this two-step strategy. The first part of Miller's strategy has nothing to do with fundamentality and grounding directly, but it is possible that the fundamentality-loaded $3D$ and $4D$ are not as equally explanatory and simple (empirical equivalence is likely to be untouched by all this). However the most important part of Miller's strategy is the proof of intertranslation, i. e. the second step of her argument. If this does not go through, then Miller's final claim of metaphysical equivalence between $3D$ and $4D$ does not hold. This is why I focus on the second step of her approach, and see how it is affected by the presence of fundamentality.

This naturally leads to a discussion of the second reason why this analysis is complex. The original definition of part_{mb} seems to have something to do with fundamentality (the very mention of the word 'basic' in the name of parts_{mb} seems to be hinting at this), although neither 'fundamentality' nor 'grounding' are explicitly mentioned. Nonetheless, Miller says that parts_{mb} are metaphysically basic (hence the 'mb' subscript) and that things are what they are in virtue of having certain parts_{mb} and not others. In the seemingly fundamentality-free case, Miller shows that a view that acknowledges the existence of parts_{mb} is the best one. If I am to make the role of fundamentality explicit, Miller's strategy can be formulated as follows. $3D$ and $4D$ think that enduring objects and temporal parts are fundamental, respectively. However there is a better view to consider, i.e. the view according to which parts_{mb} are fundamental. The new strategy mirrors very closely the original one. The only difference is that the former talks about what grounds what while the latter talks about what there is. As a consequence, I do not think fundamentality obstructs Miller's strategy. Rather, it highlights a vein of Miller's original account.

Along similar lines to the worry I discussed in chapter two, some may argue that this is not a case of dismissivism. There I pointed out that Miller's strategy is not obviously dismissivist, according to the meaning of the word I have adopted, and a similar point can be made here. This worry is important, because if Miller's

⁵I think it is more in line with Miller's thought to consider a version of $4D$ where temporal parts ground their mereological fusions, rather than a version according to which mereological fusions are more basic than their parts.

account is not a case of dismissivism, then the fact that fundamentality does not obstruct it does not help me disconfirm any of the claims (1-4) listed on p. 96. Two options open up here. One is to revise the definition of ‘dismissivism’ I have embraced, and give it a more general meaning, enough to make Miller’s strategy count as dismissivist. I have already talked about this option in the conclusion of chapter two, and I do not think it is a philosophically meaningful option.

A second option is for me not to use Miller as a counterexample to the general claims I stated above, and rather observe an interesting feature of her account. Miller feels that the disagreement between *3D* and *4D* is not genuine, and the strategy she uses to make it genuine, or at least to introduce a genuine view in the debate, is to add a notion that is intimately connected with the concepts of fundamentality and grounding. This strategy seems to be in line with those philosophers who think that the *real* metaphysical questions are about what grounds what, and that answers about what grounds what are deeply metaphysically illuminating (see [Schaffer, 2009]). In this respect Miller seems to be another instance of a philosopher who attributes great importance to the notion of grounding and this reinforces my desire to find out whether debates about what grounds what can be dismissed. If this is right then not only Miller’s case cannot be used as a counterexample against claims (1-4), but rather it strengthens my suspicion that grounding may obstruct dismissivism.

both

Lastly we can see how fundamentality affects Hofweber and Velleman [2010]’s dismissivist strategy. Hofweber-Velleman work on the following definitions of *3D* and *4D* (p. 19):

“being wholly present”: An object *o* is *wholly present* at a time iff the identity of *o* is intrinsic to that time;

3D: An object *o* *endures* over an interval *I* iff it is wholly present at each moment in *I*;

4D: An object *o* *perdures* over an interval *I* iff it exists at each moment in *I*, but does not endure over *I*.

According to these definitions the identity of a *3D* object is intrinsic at the time in which it exists, while the identity of a *4D* object is not intrinsic at the time in which it exists. It is important to notice that these definitions are very different from the ones McCall-Lowe and Miller use, and as a consequence my attempt to introduce in them the notion of fundamentality has to take this into account. For instance, since temporal parts do not play any role in these definitions, we cannot take temporal parts to be fundamental. Hofweber-Velleman’s original idea of identity being intrinsic at a time does not explicitly mention fundamentality or grounding, however it feels that such notions are lurking in the background. That an object’s identity is intrinsic at a time means that all those things that determine the object’s identity at *t* are present at *t*. But ‘determining one’s identity’ seems just another way to say ‘grounding’. ‘Determining one’s identity’ means that the object has the

identity it does at t in virtue of certain features of it that are present at t . How the object is at a time grounds what kind of thing it is. If this is right then I am not really adding fundamentality to Hofweber-Velleman's view, but rather making it explicit. Thus I suggest we adopt the following fundamentality-loaded versions of the debate:

According to 3D objects *endure* over an interval I iff they are wholly present at each moment in I , and whatever grounds their identities is present in I ; according to 4D objects *perdure* over an interval I iff they exist at each moment in I , and whatever grounds their identities is scattered around I and other times.

Hofweber-Velleman argue that the original versions of 3D and 4D are compatible. Some objects are three-dimensional while others are four-dimensional. It is thus wrong to approach the debate as a choice between endorsing one view or the other. It is interesting to explore whether this claim holds about the new debate as well or not. The new versions of 3D and 4D make different claims about the temporal and spatial location of whatever grounds an object's identity. 3D and 4D agree that 3D and 4D objects, respectively, are not fundamental, but grounded in whatever makes it the case that they have the identities they do.⁶ It thus seems that 3D and 4D agree about what is fundamental and disagree whether such fundamental things accompany the object spatiotemporally or not. If this interpretation is right, it seems that Hofweber-Velleman's claim that 3D and 4D are compatible holds in the fundamentality-loaded version as well. There is no reason why the existence of 3D objects is incompatible with 4D objects, since the only difference between them is about the location of the grounds of their identities. Moreover 3D and 4D agree about what is fundamental, and this supports the claim that the two views are not mutually exclusive.

I think I can draw a parallelism between Miller and Hofweber-Velleman. Hofweber-Velleman share with Miller the idea that the 3D-4D debate is not genuine, and they both argue that there is a more interesting debate to be had, one where 3D and 4D use notions closely related to fundamentality and grounding. Again Hofweber-Velleman's approach is not strictly dismissivist, because it ends up acknowledging that the two disputants' views are compatible (whereas this cannot be the case in dismissivism *à la* Bennett). As a consequence, the effect of fundamentality on their account cannot be used to support or disconfirm any of the claims listed on p. 96 of this work, but rather it can be used to support the need for a more thorough discussion about the relationship between dismissivism and grounding.

Before drawing some general conclusions about what this analysis shows, I would like briefly to present two sample fundamentality-loaded versions of 3D and

⁶I am aware that this is a loose way of speaking. I have chosen to express myself in this way on purpose, because I am unsure as to what Hofweber-Velleman might think of grounding entities. For instance, they could be facts or objects. I do not want and do not need to commit to a strict interpretation here, thus I leave it open.

$4D$ and compare them with respect to quantitative and qualitative parsimony. It will be clear by the end of this section that these additional remarks can strengthen the idea that grounding does not necessarily obstruct dismissivism. Let us use [Lewis, 1986, p. 202] as a base:

$4D^f$: an object *perdures* iff it persists by having different temporal parts, or stages, at different times, though no one part of it is wholly present at more than one time, *and temporal parts are fundamental*;

$3D^f$: an object *endures* iff it persists by being wholly present at more than one time, *and is fundamental*.⁷

For what concerns qualitative parsimony $3D^f$ and $4D^f$ are committed to the existence of three-dimensional objects, four-dimensional objects, and temporal parts, which are all concrete, regardless of their fundamentality status. This means that the two views are equally qualitatively parsimonious because they are committed to the existence of one qualitative type of entity each. Note that this is the same result obtained when I compared the original versions of $3D$ and $4D$.

For what concerns quantitative parsimony, I cannot compare the two views in this respect, unless I have decided what to count first. Recall that I faced the very same issue in the $\mathcal{T}\mathcal{U}$ debate. The first option is to count what a theory says exists. According to this counting method, for $4D^f$ we need to count temporal parts and medium sized dry goods. The set of temporal parts has cardinality 2^{\aleph_0} , while the set of medium sized dry goods is either finite or \aleph_0 (depending on what science says). By the properties of cardinal numbers $2^{\aleph_0} + \text{finite}$ and $2^{\aleph_0} + \aleph_0$ both have as result 2^{\aleph_0} . On the other hand $3D^f$ is committed to the existence of an either finite or infinite number of three-dimensional objects (depending on what science finds out). According to this method of counting, $4D^f$ is less quantitatively parsimonious than $3D^f$, since 2^{\aleph_0} is bigger than either finite or \aleph_0 .

The second option is to count only what a theory says is fundamental. In the case of $4D^f$ I now count only temporal parts, whose set has cardinality 2^{\aleph_0} . $3D^f$ is committed to as big a number of objects as before. Again, $4D^f$ turns out to be less quantitatively parsimonious.

I can now close this section by drawing conclusions from these remarks. As highlighted at the beginning of this section I am mostly interested in finding out what this discussion tells us about the relationship between grounding and dismissivism. Since I showed grounding obstructs various attempts to dismiss the $\mathcal{T}\mathcal{U}$ debate, I expected grounding would obstruct attempts to dismiss the new $3D$ - $4D$ debate. This expectation has not been confirmed. I have shown that McCall-Lowe's dismissivist strategy works just as well in the fundamentality-loaded version of the

⁷I am not claiming these are the only two possible ways to cash out fundamentality in the $3D$ - $4D$ debate, however for the reasons already stated it is out of the scope of this chapter to explore all possibilities.

debate. Moreover I have strengthened my case (see chapter two) to argue that Miller’s strategy and Hofweber-Velleman’s to dismiss the fundamentality-free 3D-4D debate are not strictly speaking dismissivist but rather they introduce a third view in the debate, which fares better than both 3D and 4D. The third view in both Miller’s and Hofweber-Velleman’s case uses notions connected to fundamentality and grounding. Furthermore, when I compared sample versions of fundamentality-loaded 3D and 4D I did not meet any of the obstacles I met in the \mathcal{T} - \mathcal{U} case. What is apparent from all remarks discussed in this section is that I do not seem to have a strong case to think that grounding plays a special role in obstructing dismissivist attempts. Moreover, I was able to easily compare the qualitative and quantitative parsimony of the fundamentality-loaded versions of the debate, contrary to what happened in the \mathcal{T} - \mathcal{U} case.

This is good for the possibility of understanding and exploring the 3D-4D debate, and it is also an important milestone for my project, because it shows what the best way to proceed is. The issue at stake here is whether grounding is the feature which in general distinguishes dismissable debates from non-dismissable ones. At the start of this section I was hoping to get some answers about the relationship between grounding and dismissivism, and the discussion of this new case study has crushed hope to prove the general claims stated above:

- (3) in general if a debate involves the notion of grounding, then it cannot be dismissed;
- (4) in general if a debate can be dismissed then it does not involve the notion of grounding.

In particular McCall-Lowe’s case discussed above acts as a counterexample to both claims.

Let me clarify this further. Claim (3) says: ‘if a debate involves the notion of grounding (G), then it cannot be dismissed (D)’ (in symbols $G \rightarrow \neg D$). This is obviously not equivalent to the stronger and false claim: ‘If a debate does not use the notion of grounding, then it can be dismissed’ (in symbols $\neg G \rightarrow D$). To understand why the latter claim is false one should consider a metaphysical debate which does not involve the notion of grounding and which one does not think it should be dismissed. The former claim leaves it open, while the latter does not, that some debates that do not use the notion of grounding may still not be dismissable.

The discussed dismissivist approaches to the fundamentality-free version of the 3D-4D debate, and the composition and colocation debates discussed by Bennett [2009] are all examples of debates that do not involve the notion of grounding but can be dismissed, at least according to some (in symbols $\neg G \wedge D$). On the other hand the dismissivist approaches to the fundamentality-loaded version of the 3D-4D debate are instances of: $G \wedge D$. These are all particular instances and not general claims. As per the rules of logic, none of these instances can be taken to support either of the above general claims (3) and (4): $G \rightarrow \neg D$ and $D \rightarrow \neg G$.

All this does not solve the main question of this chapter, i.e. how can we in general dismiss debates that involve the notion of grounding? This is the task I turn to now.

2. Grounding

In this section I address the question of how, if at all, we can dismiss debates that involve the notion of grounding. There are different strategies to answer this question. The first one is to answer it directly, i.e. find a way to dismiss about what grounds what. An alternative strategy focuses on showing that the notion of grounding generally speaking is problematic, and argue that because of this, debates that use such notion should be dismissed. I think the second strategy is more promising, because I have already shown in the previous chapter that some of the most popular dismissivist techniques may fail when applied to debates that involve grounding. Thus I here want to follow a different strategy and discuss the notion of grounding itself directly, rather than discuss a debate.

Before starting I have to answer an obvious objection. At the beginning of this chapter I said that the fact that the $\mathcal{T}\text{-}\mathcal{U}$ debate is not dismissable because of grounding may provide support for the claim that the traditional dismissivist techniques (used in debates concerning existence only) yield unsatisfactory answers with grounding. However the analysis of the fundamentality-loaded $3D\text{-}4D$ disconfirms this claim. In some fundamentality-loaded versions of $3D\text{-}4D$ the traditional dismissivist techniques go through without problems. The objection is: the two case studies show that each metaphysical debate is unique and has to be analysed without hoping to get any help from general principles. The notion of grounding creates problems in one case and not the other because of the specific claims $\mathcal{T}\text{-}\mathcal{U}$ make, and there is no reason to suspect that grounding is in itself problematic.

To this I reply that even if it cannot be shown that the traditional dismissivist techniques in general fail when used in all debates that involve grounding, one can still agree that it is a reasonable project to find alternative strategies to dismiss debates in which the notion of grounding plays an ineliminable role. I think it would be good to find a dismissivist technique that is specifically suited to dismiss debates in which grounding plays a crucial role, rather than keep using techniques that work well with existence, but are not especially designed to untangle the notion of grounding.

In this section I will try to outline a dismissivist strategy that both parallels in some respects and differs in others from dismissivist strategies used to talk about existential debates. First, some have argued that philosophers mean different things by ‘exist/there is’, and have taken this as a reason to dismiss some debates about what there is (e.g. [Hirsch, 2002]). I am going to mirror this strategy in the case of grounding, making a case that there are reasons to think different philosophers semantically deviate about what ‘ground’ means (recall my remarks about verbal

disputes in chapter one). Secondly, some have argued that the concept of existence is not clear (e.g. Azzouni [2010] argues that the concept of existence oscillates between a referential meaning and a non-referential one). I will show that this may happen in the case of grounding as well. A third dismissivist strategy challenges the role of the notion of grounding. In the case of grounding some have argued that we do not really need the notion, but this finds no parallel in the case of existence. Nobody has argued (to my knowledge) that we can do metaphysics without the notion of existence.⁸ This last dismissivist strategy specifically designed to challenge grounding is more radical than the previous ones.

It could be surprising to see very little mention of Bennett here, especially given that I used her work as a guideline in all preceding chapters of this work. The reason for this, as announced in the introduction, is that Bennett does not focus on grounding, and thus I here have to devise my own analytical tools. There are also some more specific reasons of why I am not going to mention Bennett a lot here, i.e. I am not going to try to dismiss debates about what grounds what for antirealist or epistemic reasons. In the case of antirealism, it is not very clear what it means, and the view that the world is metaphysically indeterminate is not very convincing, thus I do not think that trying to dismiss debates about what grounds what for antirealist reasons is an interesting project. For what concerns epistemicism, recall that Bennett claims that in the debates about composition and colocation all possible options have been explored, and there has been such a lively and intense debate in these fields that it is very unlikely new insights will come out. In these cases it is thus appropriate to conclude that these two debates should be dismissed for epistemic reasons. I do not think the debate about grounding is in similar conditions. First of all the debate about grounding is quite recent, secondly there is very little agreement about almost all aspects of the notion of grounding (as I am going to show in a moment), and lastly it looks likely that new ideas about it will be put forward. For these reasons I think it would be very premature to dismiss debates about what grounds what on the basis that we have explored all possibilities. We just have not. This is why I am going to focus on the three strategies I mentioned above.

This section is divided into three main parts. In the first one (2.1) I analyse the notions of grounding and fundamentality, highlighting their most important features. I also briefly digress to clarify which role these notions play in the \mathcal{T} - \mathcal{U} debate, in order to provide a concrete example (2.2). In the second part (2.3 and 2.4), I explore the issues grounding and fundamentality run into. In the third (2.5) I draw important metaontological conclusions from the issues raised in the second part. I argue that debates about what grounds what should be dismissed.

⁸Some (e.g. [Schaffer, 2009, p. 347]) have argued that the really interesting metaphysical questions are about what grounds what rather than about what there is, but this is not quite the same as saying that we do not need the notion of existence in metaphysics.

2.1. Analysis of grounding and fundamentality. In this section I present a literature survey on the most popular attempts that have been made at defining grounding and fundamentality. I am not trying to offer new insights into the analysis of these notions. This strategy is justified by the fact that I want to be impartial, I do not want to support one version or another and then argue that it does not work: this would be a biased strategy. I will simply assess the whole spectrum of possibility, thus giving a fairer representation of what is going on. This is particularly important because it would be easy for me to misrepresent the debate about grounding and fundamentality, giving a misleading presentation which supports the claim that debates about what grounds what should be dismissed. I aim at giving a just representation of what is going on in the debate.

Let us start with some introductory remarks. First of all, a terminological note. So far I have used the terms ‘grounding’, ‘fundamentality’, ‘in virtue of’, and ‘depending on’ loosely, basically as synonymous. That A holds in virtue of B , or that A depends on B , or that A is metaphysically explained by B , are ways of talking all connected to grounding. These expressions are often found when philosophers try to explain what grounding is. Of course these words are related but some distinctions are in order. An important distinction is highlighted by Schaffer [2009, p. 373]: ‘ x is fundamental $\stackrel{def}{=}$ nothing grounds x ’ (more on what this exactly means and implies later). This definition shows that even though the two notions are intimately correlated, they are not equivalent. I will discuss them both.

In order to make a few clarificatory distinctions, I will focus on:

- (i) how to define grounding;
- (ii) the grammar of grounding;
- (iii) how grounding is connected to modality;
- (iv) what the relationship is between grounding and cognate notions such as supervenience, logical analysis, causation,

It is not a purpose of this chapter to define the notion of grounding. Such an inquiry falls out of the scope of what I am trying to do here. I will nonetheless discuss some definitions that have been offered, in order to clarify what role grounding plays in metaphysical debates. First of all I quickly survey the most popular views about the grammar of grounding. According to some, grounding is a relation between facts (as [Rosen, 2010]⁹ and [Audi, 2012]¹⁰ think), or an operator on sentences (as [Fine, 2012] thinks¹¹). Others prefer to think of grounding as a relation holding between

⁹‘The grounding relation is a relation among facts.’ (p. 114)

¹⁰‘On my view, grounding is a singular relation between facts, understood as things having properties and standing in relations. Facts, on this conception, are not true propositions [...]’ (p. 103)

¹¹‘My preferred view is that the notion of ground should be expressed by means of a sentential operator, connecting the sentences that state the ground to the sentence that states what is grounded.’ (p. 46)

things, such as [Schaffer, 2012].¹² This topic is widely debated in the contemporary literature, however I remain neutral on this, because I do not need to endorse a specific version of grounding to run my arguments.

The notion of grounding is similar to the notion of ontological dependence, which according to Lowe [2010] is as follows:

A crucial notion in metaphysics is that of one entity *depending for its existence upon* another entity - not in a merely causal sense, but in a deeper, ontological sense. The kind of dependence in question must also be distinguished from any kind of logical dependence, because *logical* relations, strictly speaking, can obtain only between propositions, not between concrete objects, nor between abstract objects that are not propositional in nature.¹³

According to Fine [2012, p. 39]:

the fact that *A* grounds the fact that *B* iff the fact that *B* obtains in virtue of the fact that *A* (in the generic sense) and it is a metaphysical necessity that if *A* then *B*.

We can merge this with Fine [2001]'s remarks about the notion of grounding. Here he says (p. 15):

[*T, U, ...* ground *S* iff i]ts being the case that *S* consists in nothing more than its being the case that *T, U, ...*[...]

The notion of ground should be distinguished from the strict notion of reduction. A statement of reduction implies the unreality of what is reduced, but a statement of ground does not.

The notion of ground [...] is also to be distinguished from logical analysis [...] because we should] distinguish between the essentially linguistic matter of determining which proposition is expressed by a given sentence [...] and the essentially metaphysical matter of determining what grounds what. We take *ground* to be an explanatory relation [...] *P*'s being the case holds *in virtue of* the other truths' being the case. [...] The relation of ground is distinguished from [other explanatory relations] by being the tightest such connection.

From these initial passages we can start highlighting a few distinctions. First of all, as both Fine [2001] and Lowe [2010] note, grounding is a metaphysical notion, different from others such as logical analysis, causal relations, supervenience, truth-making, or reduction. However, not all agree that grounding is different from all these notions, and some indeed try to formulate grounding in terms of one of these. Vice-versa, others try to explain some of these notions in terms of grounding. Let

¹²I myself would prefer to speak of grounding as holding between things.' (p. 124)

¹³In what follows I will use notions of fundamentality, ground, and ontological dependence interchangeably. Nothing turns on the differences between these.

us briefly discuss all these in turn.

Fine argues that grounding is different from reduction, because reduction usually implies that if x can be reduced to y , then x is less real than y , or that y is the only real thing, while x is not real at all. On the contrary, if y grounds x , this does not imply that x is less real than y or not real at all. This is not the only possible view of reduction. As Fine [2001, p. 11] highlights:

For as long as reduction is regarded as getting us closer to what is real, we will wish to deny the reality of any fact that reduces to something else.

However other metaphysicians or other branches of philosophy do not accept that reduction implies that what reduces to something else is less real. When I speak of reduction in this chapter, I will stick to the former use mentioned here. Cameron [2008, p. 7] agrees with Fine's former view, when he says: 'Do not think of the distinction [between fundamental and non-fundamental entities] as dividing the entities in the world into the privileged real existents and the impoverished unreal existents'.

Moreover, metaphysical necessity is different from grounding because there are cases in which entities are related in a metaphysically necessary way, without it being the case that one grounds the other. For instance, it is a metaphysical necessity that $A = A$, but it is not the case that A grounds A , since ground is irreflexive.

According to some, logical analysis is different from grounding because it concerns only propositions, while grounding does not concern propositions. When one says that things have properties in virtue of having tropes, one does not mean to say that the proposition 'that things have tropes' grounds the proposition 'that things have properties'. Rather, what one means is that tropes (the objects) explain why things have properties. As Raven [2011, p. 690] highlights: 'Nor does ground assimilate to *analytic equivalence*. Grounds needn't analyze the grounded. For example, the fact that Fido has canine DNA needn't analyze the fact that Fido is a dog, even if the former grounds the latter.'

This is connected to the complex relationship between grounding and truth-making, which has been developed in various directions. The two notions are clearly close and some authors have tried to tie them together, while others try to keep them distinct. For instance, Cameron [2008] importantly links fundamentality and truth-making. According to Cameron, the distinction between what is fundamental or not should be cast in terms of truthmaking. He argues that (p. 7):

“ a really (or fundamentally) exists” is true iff a is an element of our ontology (read: iff a does some truthmaking); “ a exists” is true iff $\langle a$ exists) is made true by some thing(s); and “ a merely

(or derivatively) exists” is true iff $\langle a \text{ exists} \rangle$ is made true but isn’t made true by a .¹⁴

From this passage it is clear that according to Cameron the fundamental entities are the ones that play a role as truth-makers. Cameron highlights the important distinction, that the sentence ‘ x exists’ can be made true by something other than x itself. This allows him to argue that truth-making is a much clearer notion than grounding, as he says here (p. 10):

$\langle \text{Socrates’ singleton exists} \rangle$ entails $\langle \text{Socrates exists} \rangle$ not because of any mysterious relation of dependency holding between Socrates and his singleton but simply because the only possible truthmaker of $\langle \text{Socrates’ singleton exists} \rangle$ is Socrates [... Truth-making] doesn’t require us to invoke the mysterious relation of ontological dependence.

Schaffer [2008] discusses a different way to interpret the relationship between truth-making and grounding. Schaffer talks about a special form of truthmaking that he calls ‘truthmaking as grounding’ (and nicknames TGro) and has the following features (pp. 17-18):

TGro does not concern what there is, but only concerns what is fundamental [...]. There are propositions and they have truth-values. But semantic features such as the fact that a proposition is true are not fundamental features of reality. Like all non-fundamental features of reality, they require grounding in what is fundamental. [...]. The quantifier commitments are what a theory says exist, while the truthmaker commitments are what a theory says is fundamental.

Here again we meet the distinction Cameron highlights, i.e. the distinction between things that exist while they are not fundamental, and fundamental things.¹⁵

On the other hand, some think that grounding is completely different from truth-making, for instance Fine [2012]. According to him, truth-making concerns ‘what it is for the representation that P to represent P ’ (p. 43). Moreover (*ibid.*):

[...] the relation of truth-making relates an entity in the world, such as a fact or state of affairs, to something, such as a statement or proposition, that represents how the world is; and the intended understanding of the relation is that the *existence* of the worldly entity should guarantee the *truth* of the representing entity.

According to this passage, grounding has ‘nothing to do with representations as such, but concern[s] the ground for P ’. Thus if we want to describe what grounds what (rather than what is the truth-maker of what) in presence of a red round ball

¹⁴The notation $\langle a \text{ exists} \rangle$ means: ‘the proposition that a exists’.

¹⁵For an original development of this see also [Williams, 2010].

‘it is that the ball is red and that the ball is round that makes it the case that the ball is red and round, and not the existence of the *facts* that the ball is red and that the ball is round that make the *proposition* that it is red and round true’ (*ibid.*).

This passage is puzzling, because in the first part of the sentence Fine uses the expression ‘that the ball is red’, while in the second part he says ‘the existence of the facts that the ball is red’. I am not entirely sure how to understand the difference between the two expressions and the significance of the shift in use. The reason why I am quoting this passage is to highlight the distinction between facts grounding other facts and facts grounding propositions. Fine draws this distinction because he thinks grounding has nothing to do with truth-making, so what makes a proposition true is not its ground, but rather its truth-maker. I can paraphrase Fine’s passage in simpler words as: that x is F (where x is an individual and F is a property) makes it the case that x is F , and that x is F does not make it the case that the proposition that x is F is true.

I now turn to pointing out the difference between grounding and supervenience. The notion of supervenience belongs to a family of metaphysical notions that try to precisify the concept of metaphysical dependence. Broadly speaking supervenience tries to capture the idea that reality may be layered, and tries to understand what the structure of reality is (i.e. what depends from what, or in other words which layers are at the top and which at the bottom). The basic definition of supervenience is, according to McLaughlin and Bennett [2011]:

A set of properties A supervenes upon another set B just in case no two things can differ with respect to A -properties without also differing with respect to their B -properties. In slogan form, “there cannot be an A -difference without a B -difference”.

Kim [2003, p. 559]’s formulation highlights why supervenience has to do with metaphysical dependence:

if A -properties supervene on B -properties, any object’s B -properties will determine all of its A -properties.

In other words, if A -properties supervene on B -properties, then A -properties depend on B -properties. The most popular example of supervenience comes from the literature on the mind-body problem. Many hold that psychological properties, such as being in pain, supervene on physical properties, such as having one’s C -fiber in a certain state. From these initial definitions, it seems that supervenience and grounding are similar. Grounding focuses on the structure of reality as well, and tries to find out what depends on what. However, there are also differences between the two. A first minor difference is that supervenience is normally formulated in terms of properties, while grounding is often formulated in terms of facts. This

is not crucial to distinguish the two, because it is possible to offer alternative formulations of supervenience, according to which it applies to facts (as Leuenberger [2008] highlights¹⁶).

A more important difference between supervenience and grounding is that supervenience is a necessary condition for reduction to occur, in other words:

if A reduces to B , then A supervenes on B .

Note that the converse is false, i.e. supervenience is not a sufficient condition for reduction. On the contrary grounding is not a necessary condition for reduction, i.e.:

if A reduces to B , B may or may not ground A .

Furthermore, grounding is different from supervenience because it is possible to agree about what supervenes on what while disagreeing about what grounds what. In other words, that A supervenes on B does not imply that B grounds A , or that A ontologically depends on B . The reason for this lies in the logical features of the two notions. Grounding, as I have said above, is mostly taken to be asymmetric (if A grounds B then B does not ground A) and irreflexive (A cannot ground itself), while supervenience is reflexive (A supervenes on A) and not-symmetrical (sometimes if A supervenes on B then B does not supervene on A , but all reflexive cases are symmetrical). Various examples can clarify the difference between supervenience and grounding. For instance, according to McLaughlin and Bennett [2011]:

A -properties can supervene on B -properties, even when it is not the case that something has its A -properties in virtue of having its B -properties [...] for any property F , being F supervenes on being $\neg F$: two things cannot differ with respect to being F without differing with respect to being $\neg F$. But, of course, it is not the case that something is F in virtue of being $\neg F$! [Moreover, n]o two things can differ with respect to either necessary or impossible properties [...]. Nothing can be both a kangaroo and not a kangaroo, so no two things can differ with respect to that property, and thus no two things can differ with respect to that property without also differing with respect to being dusty, or being purple, or being a steam engine, etc. But it is not the case that being both a kangaroo and not a kangaroo is ontologically dependent upon being dusty.

An example of how philosophers can agree about what supervenes on what, while disagreeing about what grounds what comes from Rosen [2010], who argues that in the debate about legal positivism, both the positivist and the anti-positivist

¹⁶On p. 749 he says:

Supervenience has been taken to relate classes of entities of different categories, typically facts and properties, but also particulars, states, predicates, and sentences [and relations].

think that legal facts supervene on social facts. In particular the anti-positivist thinks that legal facts supervene on moral facts, which in turn supervene on social facts. However, the positivist thinks that legal facts are grounded in social facts alone, while according to the anti-positivist legal facts are determined by moral facts as well (pp. 113-114):

Consider [...] the debate over legal positivism. One side says that the legal facts are wholly grounded in the social facts; the other says that moral facts play a role in making the law to be as it is. Now try to frame this debate as a debate about a supervenience thesis. The antipositivist says that the legal facts supervene on the moral and the social facts taken together; but of course the positivist will agree. The positivist says that the legal facts supervene on the social facts alone that possible words cannot differ in legal respects without differing in social respects. But the antipositivist need not deny this. For he may think that whenever two worlds are alike in social respects whenever they involve the same actions, habits and responses of human beings they must also agree in moral respects, since the moral facts themselves supervene on the social facts broadly conceived. But in that case the parties will accept the same supervenience claims. And yet they differ on an important issue, viz., whether the moral facts play a role in making the law to be as it is.

It is trickier to pin point the difference between grounding and causality, but an analysis of this will also prove much more illuminating in understanding what grounding is. This is particularly important because many authors have explicitly stated that they understand grounding as something different from causation, even though grounding and causation share many similarities. I am first of all giving a brief survey of the literature, in order to show why authors have thought that causation is different from grounding. For instance, Audi [2012, (p. 101)] says: ‘This paper defends a particular version of the idea that there is a non-causal relation of determination, *grounding* [...]’. More specifically Audi runs an argument in this fashion (p. 105):

- (1) If one fact explains another, then the one plays some role in determining the other.
- (2) There are explanations in which the explaining fact plays no causal role with respect to the explained fact.
- (3) Therefore, there is a non-causal relation of determination.

Along similar lines, Schaffer [2012, (p. 122)] says: ‘Grounding is something like metaphysical causation’. Moreover, Schaffer [2009, p. 376] says: ‘grounding is similar to causation [...] in that both are irreflexive, asymmetric, and transitive

[...]. It differs from [it] in requiring minimal elements' (Schaffer is here using the term 'minimal elements' to mean 'absolutely fundamental elements'). Also Schaffer [2012, (p. 122)] reinforces the same idea that there are both similarities and differences between causation and grounding: 'Roughly speaking, just as causation links the world across time, grounding links the world across levels.' Lastly, Rosen [2010, p. 118] states: 'The facts that ground [p]¹⁷ together ensure as a matter of metaphysical necessity that [p] obtains. This is one respect in which the grounding relation differs from causal and other merely nomic forms of determination.'

I would like to give a more detailed analysis of the similarities and differences between grounding and causation. Let us have a look at the following 'platitudes of causation' ([Psillos, 2002, p. 6]) to guide us in the analysis:

- The *difference* platitude: causes make a difference - that is, things would be different if the causes of some effects were absent [...].
- The *recipe* platitude: [...] causes are the means to produce (or prevent) certain ends (effects).¹⁸
- The *explanation* platitude: causes explain their effects, but not vice-versa.
- The *evidence* platitude: causes are evidence for their effects - that is, knowing that c causes e , and knowing that c occurred, gives us (some) reason to expect that e will occur.

For instance, take the event of ball₁ hitting ball₂ and causing it to move. We can see how all four platitudes are exemplified here. If ball₁ was not there, ball₂ would not move. The event of ball₁'s moving is the means that produces ball₂'s movement. The event of ball₁'s moving explains why ball₂ moves, but ball₂ alone does not explain its own movement. Knowing that balls in general can move other balls if they hit them, and knowing that a ball is hitting another, gives us some reason to expect that the hit ball will move. Let us now take an example of grounding, such as things having properties in virtue of being composed of tropes, and see whether all four platitudes are exemplified. If tropes were not there, things would not have properties (difference platitude). The recipe platitude has it that tropes cause things to have properties if one could manipulate tropes as a means of making it the case that things have properties. Even though this is a weird way of putting it, we certainly do manipulate tropes, for instance when we paint a blue table in red. Moreover, tropes explain why things have properties and not vice-versa (explanation platitude). Lastly, knowing that tropes make it the case that things have

¹⁷The notation [p] is commonly taken in the literature to mean 'the fact that p '. I stick to this use from now on.

¹⁸According to Gasking [1955, (p. 485)]:

One says "A causes B" in cases where one could the produce an event or state of the A sort as a means to producing one of the B sort. I have, that is, explained the "cause-effect" relation in terms of the "producing-by-means-of" relation.

properties, and knowing that there are tropes, gives us some reason to expect that some things will have properties (evidence platitude). It thus seems that grounding fits the four platitudes of causation. In these respects, causation and grounding seem to be indistinguishable.

I have so far highlighted a number of similarities between causation and grounding.¹⁹ Nonetheless many claim that ball₁'s movement does not metaphysically ground ball₂'s movement, whereas tropes metaphysically ground that things have properties. This is because there are other respects in which causation and grounding differ. One such respect is that while grounding is a matter of metaphysical necessity (according to both Fine [2012]'s and Lowe [2010]'s definitions), causation is a matter of nomological necessity. That balls can hit and make others move is regulated by laws of nature. Thus that balls make others move if they hit them is a nomological necessity, but not a metaphysical necessity. On the other hand it is not a nomological necessity that tropes make it the case that things have properties. Rather, it is a metaphysical necessity that they do so. Metaphysical necessity and nomological necessity are two distinct domains, because they concern and attempt to explain different phenomena. Nomological necessity explains why things move in certain ways, or how different things interact. Nomological necessity is about the world of concrete objects, the world physics studies. On the other hand metaphysical necessity concerns what objects exist and what natures objects have in the most general sense of the terms. Metaphysical necessity is not only about the physical world, but also about other worldly entities and abstract ones (if one thinks that there are any). It should thus be clear that it is the type of necessity involved that clarifies the difference between grounding and causation. For instance, causation tells us stories about how balls move when hit, or how light is reflected, while grounding tells us in virtue of what things exist and why they are in one way rather than another.

Another important difference between causation and grounding is that causation is usually thought of as something happening in time. Often causes are thought to be prior in time to their effects. When I talk about the relationship between causation and time I mean to refer to the fact that it makes sense to talk about a time frame for causal events. On the other hand in the case of grounding we usually do not talk about grounded things happening after their grounds. It seems pointless to say that grounding entities are prior to the entities they ground. For

¹⁹Another respect in which grounding and causation are similar is that both can be given a contrastive treatment, according to Schaffer [2012]. Schaffer argues by means of counterexamples that grounding is not a transitive relation, i.e. if x grounds y and y grounds w , then in general it is not the case that x grounds w . He suggests that transitivity should be replaced by contrastive transitivity, i.e. if x rather than x^* grounds y rather than y^* , and y rather than y^* grounds w rather than w^* , then x rather than x^* grounds w rather than w^* . There is no unanimous opinion about this in the literature, thus I leave it aside.

instance, in order to distinguish what grounds what from what is grounded, it does not help to think about the time priority of one over the other.²⁰

The following table summarises what I have said so far:

	Grounding	Causation
Explanatoriness	✓	✓
Evidence	✓	✓
Recipe	✓	✓
Difference	✓	✓
Time	X	✓
Modality	metaphysical necessity	nomological necessity

I have so far distinguished grounding from other close notions, but there is one further specification to highlight in order to understand properly what grounding is, i.e. the difference between grounding and fundamentality. When one says that x grounds y , one leaves it open what grounds x . It could be the case that x grounds something else but nothing grounds it, or also that it is not specified whether something grounds x , i.e. x is not ungrounded. So for instance, if I try to see in practice how fundamentality operates in the \mathcal{T} - \mathcal{U} debate, I need to be precise about what grounds what. Most argue that tropes not only ground concrete particulars, but are also ungrounded. This means that they are absolutely fundamental. Others claim that although tropes ground particulars they do not constitute the most basic level. In the latter case they are only relatively fundamental. This highlights that we need more detail about how fundamentality and grounding are connected. What comes to light first of all is the distinction between two different types of notions of fundamentality, i.e. relative fundamentality and absolute fundamentality. Relative fundamentality is the notion that some things are more fundamental than others. This leaves it open whether there is a bottom level, such that nothing grounds it (i.e. x grounds y , but the grounds of x are not specified). Absolute fundamentality is the notion that there is an ultimate fundamental level, i.e. there are some entities such that nothing grounds them.²¹

²⁰There is a further respect according to which grounding and causation differ, i.e. the nature of the relata. Causes and effects are usually events or concrete objects. Definitely not propositions, or abstract objects. In the case of grounding there is more flexibility as to what can ground what: it can be a proposition, a fact, an abstract object, Moreover, usually causes and effects, whatever they are, they are the same type of entity, whereas the ground and the grounded can be different types of entities. However delving into this would push me to talk more about whether grounding is a relation or an operator, and I have already clarified why I do not need to explore this aspect. Thus I leave this issue here.

²¹There are other ways to make distinctions about the notion of fundamentality, such as [Bennett, 2011]’s. According to her, some of the options on the table are the following. Something is fundamental iff (p. 38):

- (4) it is ‘ungrounded but grounds something else’;
- (5) it is ‘natural’;
- (6) it is ‘ungrounded’.

It is important to notice that there are two distinctions operating here, one is between being ungrounded and being grounded (or better, not being ungrounded), and the other one is between grounding something, or not grounding anything. One needs to focus on the first distinction, in order to understand the difference between relative and absolute fundamentality. If a theory talks about ungrounded entities, then those usually compose an absolute fundamental level. On the other hand, if a theory talks about entities that are simply more fundamental than others, but are not necessarily ungrounded, then we are in a case of relative fundamentality. In many cases of relative fundamentality it is not claimed that the relatively fundamental entities are grounded in something else, and it is usually simply left open that they may be grounded in something else. The second distinction constitutes a different issue, which allows to distinguish between entities that play a grounding role and those that do not ground anything.

2.2. Grounding and fundamentality in the \mathcal{T} - \mathcal{U} debate. This discussion aimed at pointing out some crucial features of grounding, and did not aim at defining it. I hope to have provided enough details to have some grasp of what authors mean when they say that x grounds y , if there is a single thing they mean. In this section I briefly leave the analysis of grounding in order to highlight how the things I just said apply to the \mathcal{T} - \mathcal{U} debate. The reason for this is to give a concrete example of how these notions operate in a real metaphysical debate.

The debate between \mathcal{T} and \mathcal{U} flourished before the recent interest around grounding grew, thus all the recent insights into fundamentality have not been affecting \mathcal{T} and \mathcal{U} much (especially \mathcal{T}). I thus refrain from discussing whether the way \mathcal{T} and \mathcal{U} use the notion of grounding is the best one. For instance, Campbell, Williams, and Armstrong do not specify any details of the notion of grounding they are using. They do not specify if they conceive of it as a form of truth-making, or causation, or logical analysis. However I do not mean this as a criticism of their views, because an analysis of grounding was not the purpose of their works I have been quoting. What I want to stress is that the argument I am going to run in this chapter is not affected by the fact that most proponents of universals and tropes do not define precisely what they mean when they use the notion of grounding, because I am going to draw conclusions from general reflection on the notion of grounding and not only from reflection on the role grounding plays in the \mathcal{T} - \mathcal{U} debate.

It is not the case that all supporters of \mathcal{T} and \mathcal{U} have one uniform view about fundamentality, thus I would like to present some examples. In the case of \mathcal{T} , Williams clearly endorses the claim that tropes are fundamental, in the absolute

This classification partly overlaps with the distinction between relative and absolute fundamentality just discussed. For instance (4) and (6) are ways of referring to absolute fundamentality, while (5) is completely different, because it does not take fundamentality to be a form of grounding. Notion (5) will not be involved in what follows. The reason why I focus on the distinction between relative and absolute fundamentality rather than Bennett's or anybody else's is that my distinction will allow me to highlight more clearly general points about the relationship between grounding and dismissivism.

sense (recall [Williams, 1953], when he talks of tropes as the ‘alphabet of being’, the ‘primary constituents’ of the world, and ‘the only actualities’, see quoted passage in section 3.2 of chapter three, p. 56). To be more specific, according to him tropes are also atoms, because they are not composed of anything else. Campbell endorses a similar view as well, as I think it is quite clear from [Campbell, 1990, pp. 145 ff.] that he takes tropes to be absolutely fundamental atoms. In particular on p. 156 he says: ‘we now propose that all the basic tropes are partless and edgeless in the ways that space is’. According to Williams and Campbell thus tropes constitute the atomic absolute fundamental level because they cannot be further divided into parts. Nothing grounds them, they are part of everything they compose, and nothing exists which is not made of them.

On the other hand Ehring [2011, p. 3] says:

sparse properties are tropes [...] there [are] sparse properties[, but] no bottom-level sparse properties. [...] Thus, I will *not* assume that sparse properties are confined to a minimal base.

A minimal base is an absolute fundamental level, if we follow Schaffer [2003, p. 508]: ‘*The very idea that there exists a minimal base is a fundamentalist presupposition*’ (Schaffer is here using the word ‘fundamental’ in the sense of ‘absolutely fundamental’). Thus it seems that Ehring conceives of tropes as fundamental, but not in the absolute sense, because tropes do not form a minimal base. Tropes are more fundamental than other things, and ground other things, but it is left open whether there is an absolute fundamental level.

In the case of \mathcal{U} , let us take [Armstrong, 1997] as an example. In the final chapter Armstrong says (p. 263):

the existence of *atoms*, simples, whether particulars or universals, is held to be a question for science rather than metaphysics, and one we should at present remain agnostic about [...] The world divides [...] into contingent states of affairs, whose constituents are (thin) particulars and universals [...] The world is a mereological unity [...] the whole supervenes on the sum of the parts and is nothing more than the parts.

From this we can see that according to Armstrong we should not argue either that there is an atomic fundamental level, or that there is not, because we are better off waiting for science to answer this question. Thus it seems Armstrong is committed only to the notion of relative fundamentality, which in his framework means that states of affairs are more fundamental than the whole, but no claim is made about an ultimate fundamental level.

One may wonder how the distinction between absolute and relative fundamentality affects my arguments of chapter three. One may say that it is possible that only one of the two notions affects dismissivism in the \mathcal{T} - \mathcal{U} debate, but not the other. This is not a difficult challenge to answer to, as I have basically already

answered it already. In chapter three I showed that both in the case of \mathcal{T} and \mathcal{U} the notion of fundamentality makes it more difficult to compare the two views with respect to simplicity and parsimony. This makes the debate tougher to dismiss. My argument for this was general and did not appeal to any specific notion of fundamentality. I did not even provide a definition of it at that stage. As I have just described, \mathcal{T} and \mathcal{U} use both relative and absolute notions of fundamentality, thus both types of fundamentality can be held responsible for making the debate difficult to dismiss.

2.3. Problems for grounding. Now I would like to turn to the discussion of what is the best way to dismiss debates that involve the notions of grounding and fundamentality. Given what is going on in the contemporary literature on the topic and given what I said at the beginning of the last section, the most promising strategy seems that of showing how the notion of grounding itself is problematic. The purpose of this section is to present some arguments to show that absolute fundamentality and relative fundamentality run into various issues.

It is important to highlight that even though the notions of relative and absolute fundamentality are different, they are related in the following way: if relative fundamentality runs into trouble, then absolute fundamentality is in trouble as well; but it is not the case that if there is something wrong with absolute fundamentality, then relative fundamentality is in trouble as well. These implications hold because the notion of absolute fundamentality is built out of the notion of relative fundamentality, with the additional claim about absoluteness. To clarify, if we take Fine's definition provided above as a definition of relative fundamentality in [Fine, 2012, p. 39]:

the fact that A grounds the fact that B iff the fact that B obtains in virtue of the fact that A (in the generic sense) and it is a metaphysical necessity that if A then B ,

we can build a definition of absolute fundamentality out of this as follows:

the fact that A grounds the fact that B iff the fact that B obtains in virtue of the fact that A (in the generic sense) and it is a metaphysical necessity that if A then B , and A is *ungrounded*.

This means that absolute fundamentality can be problematic for two reasons. Either it is problematic because of the absolute bit of its definition, or, if not, it is problematic because of the notion of grounding itself.

2.3.1. Absolute fundamentality. In this section I discuss the notion of absolute fundamentality, following [Schaffer, 2003]. Schaffer offers some specific worries about the notion of absolute fundamentality and I present here his arguments against the atomic version of fundamental level. Schaffer argues that not only the arguments in favour of an atomic fundamental level are problematic, but also that various strategies to retreat from his arguments are problematic. I here present only

Schaffer's main argument against atomic fundamental levels and refer the reader to the original paper for the other arguments. I choose to focus only on the atomic type of absolute fundamental level for two reasons. First of all, because it is the most popular type of fundamental level advocated for in the literature. Secondly, recall that showing that the notion of absolute fundamentality runs into issues does not imply that the notion of relative fundamentality is problematic as well. This means that the most important arguments are the ones I am going to present against relative fundamentality. In order for my final claim to hold I do not need a discussion of all possible arguments against absolute fundamentality, nor do I need the reader to agree with the argument I discuss here against absolute fundamentality. For my final claim to hold I only need my claims about relative fundamentality to go through. This is the reason why I here focus only on the most representative type of absolute fundamental level.

Schaffer [2003] works on the notion of absolute fundamentality and he discusses what he calls the 'fundamental level'. Schaffer describes four possible ways to conceive of the fundamental level. The fundamental level can be atomic (i.e. the fundamental entities are atoms), or a supervenience structure (i.e. the fundamental level is such that everything else supervenes on it), or a realization structure ('ordered by functional relations', p. 500), or a nomological structure ('ordered by one-way bridge principles between families of lawfully interrelated properties' *ibid.*). For instance, both Williams and Campbell argue that tropes constitute an atomic absolute fundamental level, as shown above. Moreover, Armstrong advocates atoms in his ontology, regardless of what we take the atoms to be (states of affairs/universals and particulars). If we take states of affairs to be ultimately fundamental, then they play the role of atoms. If we take the constituents of states of affairs (universals and thick particulars) as more fundamental instead, then universals and particulars are the atoms of the ontology.

It is important to note that Schaffer [2003] does not use the word 'fundamentality' in the same sense as Schaffer [2009] does. In the latter paper, Schaffer [2009, p. 373]'s definition of fundamental, which I previously quoted, is: '*Fundamental*: x is fundamental $\stackrel{def}{=} \text{nothing grounds } x$ '. On the contrary, [Schaffer, 2003] is about different types of hierarchical structures. This means that when Schaffer says that a fundamental level could be a nomic or supervenience structure, he does not mean to say that grounding is nomologically necessary or that it is similar to supervenience. One may thus think that Schaffer's talk about hierarchical structure bears little importance to grounding. However, one can think of grounding entities as forming a fundamental level, i.e. the grounding entities are not grounded in anything else and form a fundamental level. For this reason I think it is interesting to see a few arguments to the effect that postulating such a level might be a bad idea.

Schaffer argues that the arguments in favour of the existence of an atomic fundamental level are weak for two reasons. First of all the *a priori* arguments in favour

of it are not convincing, and secondly the *a posteriori* empirical motivations for it are problematic as well. The *a priori* argument states that the atomic fundamental level is a metaphysical necessity. Schaffer challenges this by arguing that there are other competing hypotheses, e.g. that matter is infinitely divisible, which are ‘conceivable, logically, consistent, physically serious’ (p. 501) so altogether possible and plausible.

A second *a priori* strategy to argue in favour of the existence of an atomic fundamental level is to claim that ‘it is a more economical supposition than infinite division’ and this makes it ‘*a priori* methodologically preferable’ (p. 501). Schaffer argues against this by saying that there are ‘*competing methodological considerations*’ against atomic fundamental level, such as that infinite division is explanatorily more powerful and more elegant. Schaffer in general highlights that both these *a priori* arguments are not convincing at all, and thus suggests that which fundamental level is there should not be decided *a priori*, but rather on the basis of scientific discoveries.

This leads to the discussion of the *a posteriori* set of arguments in favor of atomic fundamental level. According to Schaffer, for science to support the claim that there is an atomic fundamental level, the following has to obtain: ‘(1) There will be a complete microphysics, (2) the complete microphysics will postulate particles, and (3) these particles are the mereological atoms’ (p. 502). Schaffer challenges these three points by arguing that there is no empirical evidence that favors any of them (p. 503). Schaffer describes (1) as a hope rather than a prediction (p. 504). He presents a few examples taken from the history of science, to show that many predictions concerning the future of science, made according to what seems possible given the knowledge available at any historical stage, have been disavowed by new discoveries. Often new discoveries create a ‘revolution’ such that what was previously inconceivable becomes plausible and vice-versa. This makes it problematic to predict that science will end, because this prediction seems plausible only in virtue of the present state of knowledge. (2) and (3) fall victim of a similar reasoning. ‘[W]e simply do not know until we know what the theory actually says’ (p. 504). These remarks show, according to Schaffer, that the *a posteriori* arguments are not convincing either. Schaffer concludes that there is no evidence that there is a fundamental level, and that even if there was one, it may not be atomic.²²

Some may raise objections against Schaffer’s claims, and point out that in a subsequent paper Schaffer himself argues that there is indeed a fundamental level and that it is not atomic. According to Schaffer’s more recent view the fundamental entities ground the less fundamental entities in a top-down direction, instead of the most popular bottom-up direction. Schaffer [2010, p. 31] calls this ‘monism’:

The *monist* holds that the whole is prior to its parts, and thus views the cosmos as fundamental, with metaphysical explanation dangling downward from the One.

²²More on a related line of reasoning can be found in [McKenzie, 2011] and [Markosian, 2005].

What Schaffer [2003] says does not contradict [Schaffer, 2010], since the former only argues against a bottom-up kind of fundamentality.

What has been said in this section may not be convincing enough that there is little support in favour of the notion of absolute fundamentality and there may be more reasons to endorse other types of absolute fundamental levels. Moreover it is important to note that philosophers who endorse absolute fundamental levels, such as Campbell and Williams, can retreat from it, if they are convinced by Schaffer's arguments. If it is true that the arguments for absolute fundamentality are not convincing, they can change their claim that ' x is absolutely fundamental' to the claim that ' x is relatively fundamental'. For instance, Campbell and Williams can argue that tropes ground concrete particulars and refrain from making claims about the existence of an atomic fundamental level, thus not claiming that tropes are ungrounded.

For these reasons, I do not think it is possible to draw any consequences from the weak support in favor of absolute fundamentality to dismissivism. If I did that, I could be easily defeated. Let us say A and B are having a debate whether x or y is absolutely fundamental. If I offered an argument according to which the disagreement between A and B about what is absolutely fundamental is not genuine, they could shift from absolute to relative fundamentality. If they started talking about whether x or y is relatively fundamental, my argument would not hold against this new debate. What I am looking for is a more general reason why debates about what grounds what should be dismissed. Thus I do not think challenging absolute fundamentality is a good strategy to show that debates about what grounds what should be dismissed. Rather, the arguments I want to run against relative fundamentality are the crucial ones to the truth of my final claim.

2.3.2. *Relative fundamentality.* It seems that the best strategy to argue that debates about what grounds what should be dismissed is to challenge the notion of relative fundamentality. In this section I am going to focus on the first step of this strategy, i.e. challenge relative fundamentality and discuss a few issues about it. I argue that we can draw an inference from these issues to dismissivism in the next section.

All reasons I am going to delve into stem from the notion of grounding. Some aspects of the notion of grounding are problematic, and this is what generates problems for the notion of relative fundamentality. Raven [2011, p. 688] summarises the reasons why some philosophers argue against ground:

Anti-grounders object that ground is: *confused* - there is no distinctive question of ground and appearances to the contrary illicitly confuse ground with other notions; *incoherent* - ground is logically incoherent or is irredeemably associated with incoherent metaphysics; or *fruitless* - there is no adequate epistemology or methodology for ground.

I am going to follow his suggestion and agree with him that the most pressing challenge for grounding is: what *exactly* is grounding? In other words, what is required for a good answer to that question is a regimentation of the notion of grounding. In particular I am going to focus on the following aspects: What *is* grounding? What role does grounding play? Do we need such a notion? What role does metaphysical necessity play in its definition? These questions raise three main problems concerning the notion of grounding, which I will discuss in turn:

- the current definitions of grounding are unsatisfactory;
- it is not clear what role grounding plays;
- grounding is not different from causation.

The first line of argument to raise doubts against grounding is that none of the definitions provided in the literature so far is really able to pin point what it is. This happens because they mostly characterize grounding in a negative fashion, saying what it is not, and then require the reader to intuit some special ‘metaphysical sense’ in which things are connected. They often stress that grounding is supposed to be a special notion: it is not a causal relation, nor a logical relation, nor a reduction relation. Cameron [2008, p. 10] agrees that this is indeed a problem for grounding and argues that we do not want ‘to invoke the mysterious relation of ontological dependence’. For instance Fine [2012, pp. 41-42] tells us a lot about what grounding is not:

It will not do, for example, to say that the physical is *causally* determinative of the mental, since that leaves open the possibility that the mental has a distinct reality over and above that of the physical. Nor will it do to require that there should be an analytic definition of the mental in terms of the physical, since that imposes far too great a burden on the anti-realist. Nor is it enough to require that the mental should modally supervene on the physical, since that still leaves open the possibility that the physical is itself ultimately to be understood in terms of the mental. [...] we need a connection as strong as that of metaphysical necessity to exclude the possibility of a “gap” between the one thing and the other; and we need to impose a form of determination upon the modal connection if we are to have any general assurance that the reduction should go in one direction rather than another.

But he tells us very little about what it is. Fine positively characterizes grounding as ‘the tightest’ explanatory notion. In other words ([Fine, 2012, p. 39]):

[...] all that is properly implied by the statement of (metaphysical) ground itself is that there is no stricter or fuller account of that in virtue of which the explanandum holds.

Another example of the tendency to define grounding in a negative way comes from Campbell and Williams, who argue that tropes ground concrete particulars. They do not seem to want to say that tropes cause the existence of concrete particulars, nor that there is a special relation that holds between the sentences ‘Tropes exist’ and ‘Concrete particulars exist’. It also does not look like they mean to say that grounding is a relationship between tropes composing concrete particulars and the sentence ‘Concrete particulars exist’ being true, because this would amount to truth-making. They definitely do not mean to say that concrete particulars can be reduced to tropes either, because that would imply that concrete particulars do not exist, which is false. However they do not specify what tropes actually do.

Some other philosophers run into a slightly different issue. Instead of giving a negative definition of grounding, they rely on the hope that others will be able to understand what it is. Two examples can clarify this. Here Schaffer gives his own interpretation of grounding, [Schaffer, 2009, p. 376]:

Grounding passes every test for being a metaphysical primitive worth positing. It is unanalyzable. It is useful. And it is clear what we mean. (Of course the notion of grounding may be *unfamiliar* to some metaphysicians raised only on Quine and Carnap. The best advice I can give is *work with the notion*, and see if you then come to grasp it.)

Such advice, together with the claim that the notion of grounding is unanalysable, surely does not go down well with those philosophers who do not understand what grounding is and do not know why one should use the notion in the first place.

Another appeal to the reader’s intuition comes from a previously quoted passage, [Lowe, 2010]:

A crucial notion in metaphysics is that of one entity *depending for its existence upon* another entity - not in a merely causal sense, but in a deeper, ontological sense. The kind of dependence in question must also be distinguished from any kind of logical dependence [...]

Some may reply to the worry raised by these examples by listing a number of formal properties grounding has, in the hope that this is enough to make the notion intelligible. For instance, Schaffer [2012] and Rosen [2010] argue that grounding is an asymmetric, irreflexive, and transitive relation (contrastively transitive, according to Schaffer). For instance, Rosen [2010, p. 113] says:

the idioms of dependence cannot quite be defined in straightforward modal terms, [and yet are not] always dispensable in practice in favor of the idioms of modal metaphysics - entailment, supervenience, the apparatus of possible worlds, and so on - notions for which we have elaborate theories, and which are in any case more familiar.

This is yet another way to say what grounding is not, without saying what it is. A list of formal properties of grounding follows, and although Rosen's expectations are not too high (p. 134-135):

I hope that I have provided grounds for optimism about this project; but I do not pretend to have done more,

the skeptic about grounding is left no more convinced than before about what grounding is. One way to respond to such strategy for making grounding intelligible is to simply point out that 'A specification of the logical properties of "grounding" will constrain whatever content it has without determining that content' ([Daly, 2012, p. 91]). This means that having a list of formal properties of grounding and its precise grammar does not help in understanding what it does. Knowing that p grounds q and knowing that the relation 'grounding' is asymmetric, irreflexive, and transitive, does nothing to clarify what it means that p grounds q .

Supporters of these 'definitions' of grounding may reply in yet another way, arguing that pointing to key examples can clarify the notion enough. Such strategy basically aims at defining grounding by listing examples of entities that play a grounding role. However, I would like to reply to this suggestion arguing that listing examples does not help in understanding what grounding is at all. My argument starts by considering another famous attempt at giving a definition *via* examples ([Lewis, 1986, p. 82]):

[...] the Way of Example: concrete entities are things like donkeys and puddles and protons and stars, whereas abstract entities are things like numbers. That gives us very little guidance. First, because we have no uncontroversial account of what numbers are. [...] And even given a useful account of the nature of numbers, there are just too many ways that numbers differ from donkey [...]

We can learn a lot from this passage. Lewis regards this tentative definition of 'abstract' as unsatisfactory for three reasons. First of all, the things used in the example may be controversial, or at least it may not be universally agreed what those things are and how they work. In my case study, if somebody said 'to understand what grounding is, think of this example: "Tropes ground property attribution"', this would run into controversies about what tropes are and how exactly they explain property attribution. It is far from clear how they do that, and many different accounts have been provided to clarify this. The problematicity surrounding tropes contributes to the unclarity of grounding, and does not serve as a good example to illustrate how grounding operates.

Secondly, a definition by example leaves many questions open. In the case of Lewis for instance the *Way of Example* does not specify *how* things are abstract, why they are abstract, in what their being abstract consists. In my case study take the following example: 'Temporal parts ground 4D objects'. This example,

together with the definitions of grounding listed above, is not sufficient to clarify how temporal parts ground *4D* objects, e.g. whether *4D* objects are mereological sums of temporal parts, or whether *4D* objects are temporal worms.

The third, but not least, issue with Lewis' *Way of Example* is that it is supposed to highlight crucial similarities between those entities that are abstract and those that are not. Lewis argues that in the case of abstractness the *Way of Example* fails in pointing out such crucial similarities, so when faced with a number of entities one is not in a position to say which are abstract and which are not. This brings to light an important difference between how the *Way of Example* works in the case of abstraction and in the case of grounding. In the latter case the *Way of Example* cannot provide a list of examples, because usually when it comes to saying what grounds what, one is looking for one entity or one type of entity. So in the end a claim about what grounds what looks like this: 'Simples ground things they compose'. If this is one's view about what grounds what, there are no more examples to be provided, because it is only simples that play the grounding role, and nothing else. Offering only one example of grounding does not help understand grounding better.

These worries about what grounding is motivate a second line of argument against grounding, which challenges the role grounding plays. If one is not clear about what grounding is, then one will not know what it does either. Many philosophers state what they think the role of grounding is. For instance, according to Fine and Rosen grounding answers the question of in virtue of what *a* is *F*. According to Schaffer [2012] grounding plays the role of connecting the world across levels. Moreover Audi [2012] highlights some features of grounding, such as that it is a relation between facts, that grounded and ungrounded entities are equally real, that it is not a relation of causation, and that it is not a relation of reduction. This definition describes not only what grounding is, but also what it is not. Leaving aside whether this definition is satisfactory, Audi continues with the description of the role of grounding (p. 104):

The reason we must countenance grounding is that it is indispensable to certain important explanations [such as] what makes it the case that *a* is *F* - what, that is, determines *a*'s being *F*.

Other philosophers (and I am sympathetic with their views) disagree that there is a role for grounding to play. For instance Wilson [2013] argues that grounding seems to be too coarse-grained to answer the question it is supposed to answer. Wilson says that we know what we would like grounding to do, i.e. 'illuminate metaphysical structure', but we should ask whether grounding actually does it. She raises a number of concerns about grounding. First of all, she highlights that proponents of grounding often leave a lot of interesting and important questions about metaphysical structure open. Wilson says that (p. 10):

I cannot think of any very interesting metaphysical projects whose aim is limited to specifications of relative fundamentality, leaving open such basic questions as how (in some detail, and not just “less fundamentally”) the less fundamental entities stand to the more fundamental entities.

In particular, Wilson is concerned that often claims about what grounds what are compatible both with the existence and non-existence of the grounded, and with the fundamentality or non fundamentality of the ground (see p. 7). Wilson argues that this is a flaw of the notion of grounding, because it is not specific enough and leaves too many interesting and pressing questions open.

Another worry Wilson raises against grounding is the following (p. 18):

the posit of Grounding is needed in order to characterize the fundamental as the UnGrounded. [...] First, it would be metaphysically suspect if the characterization of the fundamental base as such proceeded by way of a negative (worldly) fact [...] the suggestion under consideration presupposes that the fundamental goings-on are not themselves grounded. But why think this? Why couldn't the fundamental goings-on mutually ground each other, as on a holist pluralist view [...] And why couldn't the fundamental goings-on ground themselves?

In this passage Wilson is casting doubts on grounding's asymmetry and irreflexivity. In other words, she says that it is possible that A grounds itself, or that A grounds B and at the same time B grounds A . Her point against the proponents of grounding is that they do not make a strong enough case to support that grounding has these two properties. She feels that it is often assumed that ground is asymmetric and irreflexive, but no support is given to such assumption. She concludes that (p. 4): '[...] there is no work for the posit (or associated theory) of Grounding to do'.

I share with Wilson the worry that grounding may be an idle notion, i.e. it is not always clear why the more familiar notions in the vicinity of grounding cannot answer the questions grounding is supposed to answer. If they can, then grounding is not needed. If they cannot, it is interesting to understand why and this might finally shed light on what the specific features of grounding are. This is important also because it can clarify a suggestion I made earlier on about Miller and Hofweber-Velleman. I said Miller and Hofweber-Velleman seem to be introducing the notion of grounding in the $3D-4D$ debate in order to make the disagreement between the two views genuine. However this strategy can be successful only if there is clarity about what grounding means, and if there are no reasons to dismiss debates about what grounds what.

This naturally leads to the discussion of my third argument against the notion of relative fundamentality, i.e. the difference between causation and grounding. Many authors (e.g. [Fine, 2012], [Rosen, 2010]) think that grounding holds of

metaphysical necessity. A distinction is in order. When philosophers claim that grounding is metaphysically necessary, they could mean two different things by this:

- (1) That facts have grounds is metaphysically necessary.²³
- (2) That *A* grounds *B* is metaphysically necessary.

The first claim is general and states that it must be the case in all possible worlds that facts are grounded. In other words there cannot be a world where facts have no grounds. Facts always obtain in virtue of other facts and it cannot be the case that facts obtain in virtue of nothing. It is clear from the various passages quoted in this section that authors do not mean this when they say that grounding is metaphysically necessary. I am thus not going to run an argument against this and I am not going to discuss it further.

The second claim is what philosophers normally hold. I am thus going to focus on the truth of this claim. This is the crucial feature that distinguishes grounding from causation, since causation is a matter of nomological necessity. I have a few worries about the presence of metaphysical necessity in some definitions of grounding:

- Why is what grounds what metaphysically necessary?
- Does metaphysical necessity explain why grounding succeeds in fulfilling its task - that of answering the question in virtue of what *a* is *F*?

In other words I wonder how appeal to metaphysical necessity shows why balls' movements do not ground other balls' movements, but tropes ground properties. Basically: how does involving possible worlds give grounding its supposedly deep explanatory power? These questions are important because if the proponents of grounding cannot answer them, then there is no reason to think that grounding is a metaphysically necessary notion and thus it loses the crucial feature which distinguishes it from causation.

One argument in favour of the presence of metaphysical necessity in the definition of grounding is that grounding explains why things are the way they are, it is the deepest explanatory notion. The only way for it to be so deep and so explanatory is to be associated to the strongest type of necessity, i.e. the metaphysical one. If facts about what grounds what differed from one world to another, such facts would illuminate metaphysical structure only locally, at some possible worlds, and would fail to illuminate metaphysical structure in general.

I am not convinced by such argument. Grounding is supposed to tell in virtue of what things are what they are. This is indeed a deep explanatory notion, because it concerns metaphysical structure. However it is not clear why metaphysical necessity is needed to achieve this purpose. Two possible worlds could have different metaphysical structures and this would not make grounding any less explanatory, or any less 'deep' (no matter what 'deep' is supposed to mean). Grounding can

²³I here write as if grounding was a relationship between facts, but all I will say does not depend on this assumption and would go through even if one endorses the view that grounding is a relationship between things or an operator on sentences.

be the tightest explanatory notion and still facts about what grounds what could differ from world to world. Nothing in what philosophers say about the metaphysical necessity of grounding explains why being the tightest explanatory notion goes hand in hand with facts about what grounds what being the same in all possible worlds.

If this point is not clarified, there is a pressing worry that the introduction of metaphysical necessity in the definition of grounding is an *ad hoc* move to make it different from causation. All authors quoted so far explicitly say that grounding is different from causation. They all need to claim this in order to support the postulation of an additional and separate notion from causation. However, when it comes to spelling out why grounding is different from causation, only metaphysical necessity distinguishes the two. If the presence of metaphysical necessity is not adequately justified, some may suspect that metaphysical necessity is added to the definition of grounding with the only purpose of introducing a difference between grounding and causation. This is problematic if no other reasons to consider grounding metaphysically necessary are stated.

Some can reply to my remarks by arguing that cases of grounding are patently different from cases of causation. For instance, they would say that the rock hitting the window is the cause of the window's shattering, but they would not say that the rock hitting the window grounds the window's shattering. Also they would not say that tropes cause things to have properties, but rather that things have properties in virtue of tropes (if one thinks that tropes are fundamental). The difference lies in the fact that causes and effects are related by nomical necessity (i.e. laws of nature), while grounding entities and grounded ones are not. Since grounding explains why things are the way they are at a deeper level than causation, it should be associated to a stronger type of necessity, i.e. metaphysical. So the possible reply goes.

I am not persuaded by this reply at all. I do see that it is not a law of nature that tropes ground that things have properties, but there is still a leap from this to the introduction of metaphysical necessity in the definition of grounding, which does not seem to be adequately justified. That *A* grounds *B* is the case in all worlds does not say anything about why grounding is an explanatorily powerful notion. That tropes are fundamental in a possible world (far away or close to the actual one) does not explain why tropes are fundamental in the actual world or in a different possible world.²⁴

A minor point to support my doubt is that some authors (e.g. [Schaffer, 2003]) have suggested that science can provide help in figuring out what is fundamental. For instance, if science finds out that matter is finitely divisible and identifies the atoms matter is composed of, such atoms would be a good candidate to compose

²⁴Another issue is how we find out what grounds what in other possible worlds, on one hand it does not seem to be an empirical matter, but on the other hand could it be entirely *a priori*? Though an interesting question, I will not dwell on it.

a fundamental level of reality, and to be the ground of all other entities composed of them. If this is a reasonable strategy, then maybe the definition of grounding should make room for the role science plays. Consider the following:

if A causes B and B supervenes on A , i.e. there cannot be a difference in A without there being a difference in B , then B ontologically depends from A .

This seems to be a reasonable definition of ontological dependence (call it grounding if you want). It does not involve the notion of metaphysical necessity, it only involves laws of nature, which is ideal if we want science to guide us in finding out what is fundamental. It explains why facts are the way they are, i.e. in virtue of their causes, and it also explains that if the causes are different, then also their consequences are different. I am not arguing this is a working account of ontological dependence, but it shows one possible way in which we could start developing a notion which is as explanatory powerful as grounding, without using metaphysical necessity.

Some could reply in yet another way to my claim that grounding is not different from causation, by highlighting that causes are linked to their effects by time relations. Causes are prior to their effects. On the contrary grounding relations do not seem to have a time frame (see p. 117 of this thesis). If this is right then causation and grounding are different because the former relations take place in a time frame, while the latter ones do not. In other words, as Schaffer [2012, p. 122] says ‘causation links the world across time’, but ‘grounding links the world across levels’. However I strongly disagree with this reply, and I think I can show that it makes sense to talk about grounding relations with reference to time. Let us assume that things have properties in virtue of having tropes, i.e. tropes ground property attribution. This means that a thing cannot have any properties unless it has got tropes. Now take a hypothetical bare object, whose tropes have all been taken away, and which is thus property-less. If we add to it a trope of ‘being red’, the thing acquires the property of being red. And so on with other properties. This shows that things can have properties only after having tropes.

Some may not be convinced that grounds are temporally prior to what is grounded. In order to provide more support to my thought that grounding relations can have a time frame, I can offer as an alternative to temporal priority the idea that grounds can be simultaneous with what is grounded. Consider again the example of a bare object to which a red trope is added. It may be the case that the object gains the property of being red at the same time as it gains the trope. This finds a parallel in the causation scene, if we consider cases of simultaneous causation, as Brand [1980] and Taylor [1966] do.

Moreover, grounding relations can also yield the notion of change or process through time. Take again my example about how tropes ground property attribution. This shows that the attribution of a property can only occur at the same time or just after a thing acquires a trope. Furthermore, a thing can change its

properties (e.g. red at t_1 and blue at t_2) only when its tropes change (e.g. red trope at t_1 and blue trope at t_2). It thus seems that grounding can explain change.

All these remarks show that talk of grounding relations in a time frame makes sense. Thus causation and grounding cannot be distinguished with respect to time only, rather the difference boils down to metaphysical necessity.

In this section I have raised three different types of worries against the notion of relative fundamentality. I have shown that there are reasons to think that grounding is problematic because it is not clear what it means, because it is not clear what it does, and because it is not clear why it is different from causation. If the arguments discussed so far are accurate, this has important metaontological consequences for debates about what grounds what. It is possible to argue that if the notion of grounding is problematic for any of the reasons just stated, then debates about what grounds what should be dismissed. I will focus on this in section 2.5.

2.4. *Tu quoque!* An important objection can be raised against some of the points I made in section 2.3. Some could argue that there is a problem about the standards I have set in the analysis of grounding. They might suspect that I have set overly rigorous standards for what counts as a good definition of grounding and that I have not specified what counts as a good definition/explanation of grounding. Having high standards of accuracy is not a problem in itself, but one has to make sure to be fair. If I set a certain standard for the notion of grounding, such standard has to be met by other notions as well, and here I particularly have in mind causation and existence. The ‘*tu quoque*’ objection raises the worry that I am showing inaccuracies in the definition and explanation of grounding, but under such high standards I expect from grounding also notions like causation and existence would turn out to be problematic. I address each case in turn and for both I argue that even though causation and existence are indeed problematic in some respects, grounding is worse off.

2.4.1. *Causation.* One may argue that if I worry about grounding for the reasons stated above, then I should worry about causation as well. Why are there more reasons to be suspicious of grounding than of causation? The table on p. 117 shows that we know quite a lot about grounding, so why is grounding problematic while causation is not? The objection is that if one takes grounding to be problematic on the grounds of not being defined and explained accurately enough, then also causation is problematic.

I disagree with this objection for two reasons. First, there is an important difference between the status of the analysis of grounding and causation. In the case of causation, for those who allow causation in their theories, there is unanimous agreement that it is a relation, whereas in the case of grounding there is no agreement on whether it is a relation or an operator. Secondly, it is clear what causation does, and how things are connected by causal relations, not only to philosophers

who think that there are causal relations, but also to others, such as scientists. On the contrary, in the case of grounding, even those who argue that we need the notion of grounding are not able to state very clearly what exactly grounding does, leaving many readers and other philosophers puzzled.

2.4.2. *Existence.* Others may point out that as we have troubles pinning down exactly all the features of grounding, we also struggle in pinning down all the characteristics of the notion of existence. The objection argues that we do not have an agreed-upon definition of existence. Moreover philosophers still disagree whether existence is a property or not (e.g. Aristotle, Hume, and Kant deny that it is a property, while others think it is). To sum up, we do not have a definition of existence and we are not even sure of the grammar for its usage. Grounding is in similar conditions, so why do I intend to use these problems to argue that debates about what grounds what should be dismissed, while I do not use them to argue that debates about what there is should be dismissed?

I agree with the analysis carried out by this objection. It is true that grounding and existence seem to be on a par when it comes to providing an accurate definition of them. However I disagree with the conclusion the objection infers from this, because I think the objection overlooks an important difference between existence and grounding. The crucial difference between grounding and existence is that everybody agrees why it is important to talk about what there is, whereas not everybody agrees that it is important to talk about what grounds what. Moreover most agree about the meaning of ‘exist’ and its role, even though a definition of it has not been written down. On the other hand, most disagree about the role grounding is supposed to play. When Schaffer says that a ‘metaphysical primitive’ is ‘unanalyzable, useful, and it is clear what we mean’, I think all philosophers would agree that existence is a metaphysical primitive. On the contrary, there is much disagreement whether grounding is a metaphysical primitive. While some claim not to be able to understand what grounding means, and what role it plays, nobody has ever claimed not to understand what it means that something exists.

I hope to have shown that even though the notions of causation and existence are problematic in some respects, grounding is more problematic. The most important difference between grounding compared to causation and existence, is that it is not very clear what grounding is supposed to do and why it is needed. These worries do not arise in the case of causation and existence, or if they do, they arise in a less dramatic way and involve a minority of philosophers.

2.5. Dismissing debates about what grounds what. In this section I discuss the metaontological consequences of the problematicity of the notion of grounding. I am going to argue that the problems of grounding are indeed reasons to dismiss debates about what grounds what. I am going to present two sets of arguments and two separate claims. One set of arguments is based on the problems

highlighted about the definition of grounding. The claim is that disputes about what grounds what are verbal, and thus disputes about what grounds what should be dismissed. The other set of arguments is based on the problems highlighted about the relationship between causation and grounding. The claim is that the notion of grounding is underspecified, and thus debates about what grounds what should be dismissed. These two sets of arguments are not connected, i.e. if one rejects one set, this does not automatically reject the other. If one disagrees with me, one needs to reply to both sets of arguments.

In the previous section I showed that there are good reasons to think that many problems arise about the notion of grounding. In particular, the different passages I quoted show that philosophers are far from having reached any agreement about the definition and role of grounding. These remarks seem to suggest that a promising dismissivist strategy is to argue that debates about what grounds what should be dismissed because they are verbal. By this I mean that disputants assign the same semantic meaning to the word ‘ground’, but different speaker meanings. In what follows I will try to argue for this claim.

The most natural way to argue that disputants assign different speaker meanings to ‘ground’ is to argue that some disputants, when talking about what grounds what, have absolute fundamentality in mind, while others think about relative fundamentality. In this case there are two interesting distinctions to be made. First of all, let us take disputants S and P disagreeing about what grounds what. S thinks that A grounds C , while P thinks that B grounds C . For the purposes of investigating the nature of C , it is completely irrelevant whether S and P have absolute fundamentality in mind, or the relative one instead. Let me spell this out further. When we want to know the ‘ontological status’ of C , we ask if it is grounded or not. When we find out it is grounded in something, that answers the question. Whether the ground of C is in turn grounded does not affect the inquiry about C .

On the other hand when we inquire about the ontological status of A and B the difference between relative and absolute fundamentality comes up. Let us assume that S is a proponent of absolute fundamentality, while P is a proponent of relative fundamentality. When they make their claims about what is fundamental or not, it looks like they assign different speaker meanings to the word ‘ground’.

I do not think this is a good argument for the claim that disputes about what grounds what are verbal, in the sense of ‘verbal’ I use in this thesis. Rather, I think this is a case of talking past each other. I believe the misunderstanding due to S talking about absolute fundamentality and P talking about relative fundamentality is best described as a case where disputants assign different semantic *and* speaker meanings to their words. This misunderstanding is thus similar to the chips/crisps case described in the introduction to this thesis. To see this clearly, consider the dispute:

S: *A* grounds *C*.

P: *A* does not ground *C*.

S takes *A* to absolutely ground *C*, while *P* takes *A* to only relatively ground *C*. This dispute is a case of talking past each other because *P* may agree with *S* and acknowledge that *S* is right. *P*'s statement is not contradictory with *S*'s statement. Moreover, asking *S* and *P* to be more specific about how they are using the word 'fundamental' would immediately solve the misunderstanding. These are the features of disputes where speakers talk past each other, and not of verbal disputes where speakers disagree. Thus I dismiss this as an argument in favour of my claim.

A second and better way to argue for my first claim, i.e. that disputes about what grounds what are verbal, is to focus on the variety of definitions of grounding the literature offers. There seems to be no broadly agreed-upon definition of what grounding is, and some of the existing definitions are not very precise. Moreover, some philosophers do not specify the definition of grounding they are working with (e.g. Williams, Campbell, and Armstrong), leaving the reader to intuit the 'special metaphysically explanatory role' grounding plays. These seem to be good reasons to suspect that some verbal misunderstanding is occurring in debates about what grounds what.

It is possible to reply to this worry. Most philosophers seem to agree about what grounding is not (causation, reduction, truth-making, logical analysis, supervenience), thus restricting the field for what grounding could positively be. Secondly, all philosophers agree that grounding is a stronger notion than causation, reduction, truth-making, and logical analysis. Thirdly, all agree that grounding is the strongest explanatory notion, one that has metaphysical import. From all these remarks it may seem that even though philosophers have not all endorsed the very same definition of grounding, they still seem to have the same notion in mind. I do not think this is a good response to my argument, because I think it is undeniable, and the literature shows it, that different philosophers have different views and accounts of grounding. It is enough to browse through the literature on the topic to see how different philosophers have different views on the topic, thus making it likely that they intend different things when they say '*A* grounds *B*'. One of the main problems with current attempts at defining grounding is that they are not effective when it comes to convincing someone who is worried about grounding or does not understand what grounding is. These definitions are too approximative and expect the reader to grasp what the author has in mind. This is not enough for an explanation of what grounding is and does.

Consider now the following dispute between philosophers *Q* and *R*:

Q: *A* grounds *B*.

R: *A* does not ground *B*.

If the remarks above and in section 2.3 are correct, then it is reasonable to argue that although in *Q*'s and *R*'s statements 'ground' has the same semantic meaning,

Q and *R* assign different speaker meanings to that word. That this is the correct diagnosis of what happens in this dispute is supported by the following points: disputants are not talking past each other, but rather are talking about the same thing, i.e. grounding, and disputants are not willing to grant that their opponent is speaking the truth in his own idiolect. If the dispute is verbal in the sense just specified, then disputes about what grounds what should be dismissed, in that they are not genuine, i.e. not substantial.

My second set of arguments that disputes about what grounds what should be dismissed is based on the worrisome relationship between causation and grounding and focuses on the role metaphysical necessity plays in this context. My argument is here very different from the previous one, in that it does not look for a verbal disagreement. I am rather trying to give a non semantic interpretation of the disagreement about what grounds what and about what grounding is. I start from the claim that for the postulation of grounding to be justified, grounding has to be different from other notions in the vicinity. I think I have shown why grounding is different from many of these notions, such as supervenience and truth-making. I turn my attention to causation. Recall that the only difference between causation and grounding is the presence of metaphysical necessity in the definition of the latter (I have argued that causation and grounding are similar with respect to time as well). Furthermore, recall that there are no good arguments in favour of the claim that grounding is metaphysically necessary. From all this it follows that the notion of grounding is not clear enough, because it turns out that it cannot be distinguished from causation. If this is the case, then there is no reason to posit the notion of grounding. And if there is no reason to posit the notion of grounding, then there is no reason to have a debate about what grounds what or about what grounding is. As a consequence, debates about what grounds what should be dismissed, because they are talking about an underspecified notion. This argument is immune to the objection raised against the previous argument, because it only relies on the assumption that one shares my worries about the role of metaphysical necessity (and not my worries about the definition of grounding).

Conclusion

To bring this thesis to a close, I would like to explore what the future of the debate about what grounds what is. I will briefly sum up what I have done in this thesis and how I have answered my research question.

Let us take my first set of arguments about grounding and dismissivism, i.e. the claim that disputes about what grounds what are verbal. At this point the interesting question is what happens next. Chalmers [2011] focuses on what happens after a dispute is diagnosed as verbal. He has several suggestions about how to take verbal debates forward. The first strategy he recommends is that of barring the term that generates the verbal disagreement. For instance, in the case of grounding, consider the following:

- (*) *S*: *A* grounds *B*.
- P*: *A* does not ground *B*.

If I am right in claiming that *S* and *P*'s disagreement is verbal with respect to the word 'ground', then, following Chalmers, disputants can try to restate their disagreement without using the word 'ground'. A plausible way to reformulate the original dispute is to say:

A obtains in virtue of *B*.

Two options open up here, which I discuss in turn.

- (1) *S*: *A* obtains in virtue of *B*.
- P*: *A* does not obtain in virtue of *B*.
- (2) *S*: *A* obtains in virtue of *B*.
- P*: *A* obtains in virtue of *B*.

In (1) *S* and *P* still disagree. This is possibly a sign that the original dispute (*) is substantial. To make sure, further analysis has to be carried out to find out whether the disagreement in (1) is verbal or substantial. In particular, it needs to be checked whether dispute (1) is verbal with respect to the new term 'in virtue of'. The barring method can be reiterated, until a substantial disagreement is found.

Scenario (2) is more complex. (2) is initially a possible sign that the original dispute (*) is verbal, because disputants crucially agree about what ontologically depends on what, which ultimately is what is at stake when talking about what grounds what. This is however too quick a conclusion. More analysis has to be carried out to confirm it. The crucial question is where the disagreement in (*) arises. It is interesting to explore the relationship between (*) and (2) in order to spot what goes wrong in the passage from the latter to the former.

There are two important remarks about why S and P can agree in (2) and yet disagree in (*). First, they may disagree about the precise definition of grounding. For instance, S takes it to be a symmetric relation, while P takes it to be asymmetric. This generates a verbal disagreement in (*), but not in (2). On the other hand the disagreement in (*) may run deeper, and may be generated by the role S and P attribute to grounding. For instance, it may be that S takes grounding to answer the question in virtue of what A holds, while P does not. This would still classify (*) as a verbal disagreement, because if S and P disagree about the role grounding plays, then ‘ground’ has the same semantic meaning for S and P , but not the same speaker meaning. However, it is interesting to note that the verbal disagreement can be generated by different aspects of the initial troublesome term.

How does this relate to dismissivism? Scenario (1) not only clarifies why (*) should be dismissed for verbal reasons, but it also offers a promising direction to reinstate the debate in a new and genuine form. On the other hand (2) still dismisses (*) for verbal reasons, but it is less obvious that the debate can be taken forward in any genuine form.

Chalmers’ barring method can yield different results in my case studies, depending on which authors are involved. I have discussed many different views, and I think the barring method would yield (1) in some cases and (2) in others. For instance, if I play Schaffer and Wilson against each other, they would probably end up in scenario (2). The verbal disagreement in (*) is due to the fact that Wilson thinks grounding is an idle notion, while she is probably happier with the ‘in virtue of’ vocabulary. On the contrary, Schaffer is an advocate of the notion of grounding and thinks it answers the question of in virtue of what A holds.

To see an example of scenario (1), consider the dispute between an atheist and a theist disagreeing about whether God grounds morality.

Atheist: God does not ground morality.

Theist: God grounds morality.

Atheist: morality does not obtain in virtue of God.

Theist: morality obtains in virtue of God.

In this case the atheist and theist not only disagree about what grounds what, but also about what obtains in virtue of what. Chalmers’ strategy highlights the source of their disagreement, which does not lie in the notion of grounding or obtaining in virtue of, but rather in the existence of God. The atheist rejects the existence of God and this is why he keeps disagreeing with the theist.

Chalmers has another suggestion to handle disputes that have been diagnosed as verbal. He calls it the *subscript gambit* (p. 532). This method only applies to philosophical disputes of the form ‘what is X ?’. Note that although the dispute I focus on in my thesis is centered around the question ‘what grounds what?’ and not ‘what is grounding?’, the latter question is in the vicinity. Moreover, the latter

question may need to be raised while applying the barring method, in order to find out whether the dispute about what grounds what really is verbal or not. The subscript gambit works as follows. Instead of asking what grounding is, disputants substitute the word ‘grounding’ for what they think it is. For instance:

S: I refer to a relation which answers the question of in virtue of what *A* holds and is asymmetric, irreflexive, and transitive (call this G_1).

P: I refer to a relation which answers the question of in virtue of what *A* holds and is symmetric, reflexive, and transitive (call this G_2).

This helps highlighting what the disagreement over grounding is about, because it points out its features. In the example just offered, the subscript gambit shows that the problem lies in the logical properties of grounding. If the dispute is rephrased as suggested it is easier to see whether the original dispute about grounding is verbal or not. Grounding is a complex and multi-faceted notion, and the example highlights that it is possible that only part of the definition of the notion can generate a verbal disagreement and not necessarily the whole of it.

As I have done above, I would like to explore how this method helps us in finding out what disputes should be dismissed and why. First of all, if the subscript gambit method succeeds²⁵ and if disputants discover they have a substantial disagreement about X_1 and X_2 , this shows that the original dispute about grounding is verbal. A new clearer and genuine distinction between what disputants mean is available. Two new disputes may now be had. Firstly, [Chalmers, 2011, p. 535]:

Even though we agree on all the properties of X_1 and X_2 in non- X -involving language, we still disagree. We disagree about whether X is X_1 or X_2 !

This does not seem to be a substantial dispute, but rather a dispute about how to use words, which although perhaps interesting to some, matters very little to philosophical progress. Secondly, Chalmers suggests a more interesting way to having a genuine dispute at this stage. He says: ‘one should focus on the roles one wants X to play and see what can play that role’ (p. 538). Chalmers recommends us to think about what triggered the original dispute ‘what is X ?’ and to investigate what the reason for having the dispute is, what is at stake, what X is needed for, and what can play the role of X . Chalmers thinks this is the most interesting way to bring forward a dispute diagnosed as verbal.

I can now provide an example of how the subscript gambit can be applied in a case study. Take for instance Schaffer [2012] and Fine [2012] debating what grounding is. The subscript gambit yields the following:

²⁵It may not, because as Chalmers highlights ‘there may not be any obvious X_1 and X_2 to substitute for a key term X ’ (p. 534).

Schaffer: I am talking about an asymmetric, transitive, and ir-reflexive relation between things.

Fine: I am talking about an operator between sentences.

This strategy helps Schaffer and Fine figure out that their initial disagreement about grounding was verbal. Moreover, it highlights where precisely the disagreement arises. At this stage Schaffer and Fine can take their dispute forward, following Chalmers' suggestion, and talk about what role they want grounding to play.

This analysis shows that Chalmers' suggestions are very helpful in moving forward, after diagnosing a dispute as verbal. The barring method and the subscript gambit widen the scope for clarification of what is at stake in verbal disputes. This means that even though dismissing a dispute for verbal reasons represents the end of the dispute which has been dismissed, this leaves the door open to genuine and more constructive debates in the vicinity.

On the other hand, things do not look as promising for grounding in the case of my second argument against it. My claim in this case is that the notion of grounding is underspecified, and not that disputants are having a verbal misunderstanding about it. Chalmers' strategies are designed to work with verbal disputes, because if a dispute is verbal one can still hope that removing the verbal issue will yield a genuine dispute. It would be interesting to investigate whether a dispute about an unclear notion can be somehow 'fixed'. I do not think it can. If I am right in claiming that grounding is underspecified, the only way to have a genuine a dispute in the field is to stop talking about grounding. Genuine disputes may be had about other notions which are clearly defined. Some may even want to re-define grounding in such a way that the unclarity in it disappears. However the initial problematic dispute cannot ever be resumed.

To bring this thesis to a close I would like to recall what I have achieved. I started with the question: what is the difference in the way we dismiss debates about what there is and the way we dismiss debates about what grounds what? After describing the background of my research, thanks to Bennett [2009]'s analysis, I discussed two case studies, the *3D-4D* debate and the *T-U* debate. The former debate is about what there is and it allowed me to explore the first part of the research question. The analysis of this debate, carried out in chapter two, highlighted that:

- various authors have claimed to have successfully dismissed the debate;
- the debate can be dismissed either because there is no fact of the matter whether *3D* or *4D* is right ([McCall and Lowe, 2006]), or because the two views are intertranslatable and metaphysically equivalent ([Miller, 2005a]), or because the two views are not incompatible ([Hofweber and Velleman, 2010]).

The latter debate, $\mathcal{T}\text{-}\mathcal{U}$, is not only about what there is, but also about what grounds what. This introduces the notion of grounding into the picture. Chapter three explored the features of this debate and it turned out that:

- no one has attempted to be a dismissivist about this debate;
- I did not find any convincing arguments in favour of the claim that the debate should be dismissed, even though I explored various different reasons to dismiss it;
- the reason for this is that the notion of grounding heavily complicates things.

This analysis made me suspicious that the notion of grounding could be responsible for raising issues when it comes to dismiss debates about what grounds what. In chapter four I thus decided to analyse the notion of grounding in depth, in particular in the direction of exploring whether maybe debates about what grounds what should be dismissed and if yes why. There I argued that:

- there are good reasons to think that philosophers are having a verbal dispute when they talk about what grounds what, because they attribute the same semantic meaning but different speaker meanings to the word ‘ground’;
- the notion of grounding is underspecified, because it cannot be adequately distinguished from the notion of causation.

Both remarks lead to the conclusion that debates about what grounds what should be dismissed.

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