Being, more or less

Understanding the structure of the world in terms of degrees of being

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Abstract

In the past few decades, metaphysicians have shown a great interest in the notion of fundamentality and the hierarchical structure of the world. As a result, we now have an extensive body of literature attending to the notion of fundamentality. This addresses what is meant by being fundamental, the nature of relations of fundamentality, the kinds of such relations, and how the world is structured by these relations. However, there is still a central question that has been left neglected for a large part of the literature: what makes (or constitutes) one thing more, or less, fundamental than another?

One of the main reasons for the lack of substantial work in regard to this question is that many philosophers of fundamentality take this notion to be primitive, and therefore not in need of explanation; as Jessica Wilson says, "Fundamental is, well, fundamental." (2014: 560) In this thesis, I reject this approach and argue that the relative fundamentality of entities in relation to other entities (or what I call the "metaphysical status of entities") can be explained in terms of *degrees of being*. I take an ontological approach in explaining the way the world is structured because 'being' and its features (such as *degrees*) are the only metaphysical notion that are truly primitive.

In Chapter 1 I offer a brief exposition of the literature on fundamentality, explaining what is meant by fundamentality as well as the ways we characterise this notion, i.e. "absolute" and "relative" fundamentality. In this chapter, I explain the fruitfulness of theories of fundamentality in explaining the structure of the world, and at the end, I pose the aforementioned question: what makes something fundamental (or more or less fundamental than another)? My answer to this question is a meta-ontological one, so I first need to explain what I mean by *being* (or *existence*), which is the focus of Chapter 2. In this chapter, I discuss the benefits and shortcomings of two major meta-ontological views: equivocality of being (i.e. existence has a variety of senses) and univocality of being (i.e. there is only one sense to existence). I demonstrate that neither of these views is sufficient in accounting for how things exist, so in Chapter 3, I embark on the task of offering an alternative view, which is the *theory of degrees of being*. This version of the theory of degrees of being takes existence to have one *sense*, the referent of which comes in degrees, corresponding to different *kinds of being*. In Chapter 4 I make the connection between this purely meta-ontological theory and entities in the world. I argue in this chapter that reality is the manifestation of existence and as such things come in degrees of reality. I demonstrate this view in terms of the concrete-abstract divide as well as the actual-potential one. Finally, in Chapter 5 I return to the original question posed at the end of the first chapter, arguing that to be more fundamental than another entity is directly connected to the degree of being something enjoys. I also hold up my version of the theory of degrees of being to two of the strongest rival views (i.e. David Lewis' *naturalness* and Karen Bennett's *building*) to show that my version of the theory of degrees of being is a worthy addition, and indeed a powerful challenge, to existing theories of fundamentality.

To Azita Sharafjahan of Joyful Memories

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Table of Contents

Introduction

Our world has a structure. To have a structure is to *be formed* according to certain basic principles (or, as we shall see, *law-like* features). Something is formed as such just in case it has more than one part or constituent, and those parts/constituents are related to each other in some way. Most entities surrounding us are formed and/or are part of the formation of other entities.[1] Molecules are formed, buildings are formed (we say they are built, which is another word for formation), pieces of writing are formed, and sentences are formed. That 'some way' in which parts of something relate to each other to form that thing is where the notion of structure is evoked. That basic element or (more precisely) principle according to which entities are formed is what I call the structure of those entities. So, perhaps, structure *is* that 'some way': the underlying principle that holds a system together.

Molecules are formed by their constituents (i.e. atoms) in specific ways; these specific ways of formation (here, in most cases, 'covalent bonding') are the structure of molecules. Taking this example, we can see that formation happens according to structure. The structure is, in this sense, *law-like*. Buildings have structures, too – even a five-year-old knows that. That five-year-old will tell us that the skeleton of a building is its structure; they say so because everything else in a building is built upon the skeleton. Here, the skeleton is not immediately law-like but gives a framework for the formation of the building. Law-likeness also provides the formation (of, say, the molecule) with a framework. Therefore, we could say that the underlying principle is a framework within or according to which different elements come together to form a whole – or rather, a system.

I use the term 'system' because it very well demonstrates that a formed entity is something over and above the sum of its parts. I do not claim that a mere sum of parts is not a whole but that if something is formed of its parts, then it is over and above those parts; this is also due to structure. For example, one might equate the content of a simple essay to the content of its paragraphs taken together; but if it is not for that particular sequence of the paragraphs (perhaps the way they support one another) and where they are leading the reader's mind, the content of those paragraphs taken together might not produce the same final content that the essay has. It is the structure of the essay, the way each of those paragraphs comes after the others, that makes the essay what it is. In this sense, the notion of structure is close to what Aristotle calls 'formal cause'. Something is what it is due to its structure.

I said above that our world, too, has a structure; we know this because our world is formed. The way our world is formed is, indeed, quite complex: there are innumerable parts which together form this complex maximal entity. Some of us assume that there are simple (i.e. absolutely basic) entities in our world,[2] and some do not,[3] but regardless of the existence of such entities, all that there is in the world forms the world in its entirety. The world is formed of atoms, molecules, sound waves, organic compounds, gamma rays, mountains, comets, stars, and black holes. An oxygen atom is part of the

[1] I use entity to mean that which exists not just material objects.
[2] These are, among many others, Kit Fine (2001), Jonathan Schaffer (2009; 2010), Louis deRosset (2010), and Jessica Wilson (2014).
[3] These are, among many others, Ricki Bliss (2013; 2020), Jonathan Tallant (2013), and Einar Bohn (2018).

world formation as it is also part of the formation of a water molecule (that water molecule is part of the formation of a body of water somewhere, and through that, it also forms the world). Some of these things form different parts of the world, and some are involved only in forming one thing – but regardless of how many things something is involved in forming, everything is involved in forming the world. The world is not formed only of these physical objects either. √2 is also a part of the world. Human society is a part of the world as well. A poem, the colour red, the idea of a deity, and the Basilica of Santa Maria Maggiore all play their respective parts in the formation of our world.

If the world is formed, there must be a structure according to which the formation takes place. The structure of the world is the principle that explains how everything stands in some relation to everything else in order to make an entirety, which we call the world. We say that the world is all that there is, but how does this 'all' come together to form this (supposedly) unified maximal entity we call the world? Or do they at all come together to form a unified maximality? Questions of this sort, questions about structure, are at the core of metaphysical enquiry – indeed, as some, like Ted Sider (2011), suggest there can be no metaphysics without questions about structure.[4] In the last few decades, the focus on questions about structure has intensified in the analytic tradition. The epicentre of this revival has been the expanding literature on fundamentality, which analytic metaphysicians have presented as the 'structural notion,' a notion that underlies the world's formation. The notion of fundamentality entails that there is something basic which makes it possible for something else to exist, to come about, or to function.

As we shall see in Chapter 1 of this thesis, many philosophers have done tremendous work to explain the notion of fundamentality. That which is fundamental is either absolutely fundamental (i.e., it is more fundamental than everything else, having nothing more fundamental to itself) or relatively fundamental (i.e., it is more fundamental than some entities and less fundamental than others). Of course, not every philosopher agrees on whether the world is comprised of both absolute fundamental entities and relatively fundamental ones, but regardless of ideologies, the principles of fundamentality are more or less accepted by most of these philosophers. So, it is not an overstatement if one says that we have a clear idea today about what we mean by fundamentality. That being said, there are very few attempts in the literature to explain what makes something more fundamental than other things. We might know what it is for *a* to be fundamental or for *a* to be more fundamental than *b*, but we cannot say what makes these the case. One reason behind this gap in the literature is, perhaps, that most theorists of fundamentality take this notion to be primitive and, as such, to be structural. I said above that something's structure underlies its formation; if fundamentality is taken to be a primitive notion, then it would not be unreasonable to presume it to underly world-formation. This is, indeed, what Jessica Wilson means when she says "[t]he fundamental is, well, *fundamental,*"[5] and is what Jonathan Schaffer means when he says fundamental entities are "all God would need to create."[6]

However, I do not think that fundamentality, either taken as a monadic property or a relation, is a primitive notion. Kit Fine believes that we cannot define fundamentality,[7] but he himself goes on to characterise it in other terms. However, many philosophers, such as the ones mentioned above, believe the 'characterisation' of fundamentality by appealing to certain features is not akin to definition. But even then, in characterising fundamentality in terms of those features, we are still

[4] Sider (2011), 1.
[5] Wilson (2014), 560.
[6] Schaffer (2009), 351.
[7] Fine (2001), 26

implying the existence of those features. This is my issue with taking fundamentality as primitive: in characterising fundamentality, we already make some ontological assumptions that appear to be more basic than claims about fundamentality. In fact, such ontological assumptions are prerequisites to any claim. Everything exists or at least is subject to an existential claim. That is why I believe fundamentality should be understood in terms of existence, and that is precisely the task I will be undertaking in this thesis: to justify relations of fundamentality by appealing to the best meta-ontological theory. Significantly, to offer such a justification is, in effect, to claim that the world is structured according to the way(s) things exist.

We have a wealth of ontological theories to draw from to do this task. However, I believe that the dominant views about existence do not capture the nature of existence and, thus, do not provide us with the most effective means to account for the structure of the world. As a result, I will also have to develop a more coherent ontological account, which I will call the *Theory of Degrees of Being*. Of course, mine is not the only view of existence appealing to the notion of degrees: Plotinus' theory of Emanation implies a graded cosmology,[8] and Avicenna has a complex, layered view about existence[9] which gives basis to Scholastic views, many of which take being to come in degrees.[10] Suhrawardi's *Philosophy of Illumination* is a mystical take on a graded system of existence,[11] and Mulla Sadra expands on his views to offer a coherent (somewhat more standard) philosophical view that could be called a theory of degrees of being.[12] Most notably for my work, in the last decade or so, Kris McDaniel has defended a theory of degrees of being within the methodological frameworks of analytic philosophy.[13]

My view is inevitably influenced by many of these existing theories but differs from them in some significant respects. As we shall see in the course of this thesis, I believe there are two opposing camps about existence, which I generally describe as ontological monism (theories which take existence to have a singular sense or to have a singular kind/mode/way) and ontological pluralism (theories which take existence to have many senses or to have many kinds/modes/ways). I believe the theories of degrees of being mentioned above could all be classified as pluralist theories, while I do not see my version of degrees of being as such. The theory of degrees of being that I offer stands between the two camps and brings them closer to one another, even if it does not fully close the rift between them. In one respect, I take existence to be monistic and, in another, pluralistic. The sense of being is the concept of being – the way we understand the notion of existence, if you like. This, I believe could be understood in monistic terms. The kinds of being, however, are the ways in which things exist (such as concreteness, abstractness, etc.), and as such is inherently plural. The sense of being is what we mean by existence, the kinds of being are the different ways in which things exist. Therefore, being has only one sense, but many kinds. This one sense corresponds with plurality of kinds of being through the graded nature of what it refers to. This is to say that in existential sense being has one meaning, but what it refers to comes in degrees. If being is graded in this way, then it can be easily seen as underlying the world we live in, which is formed according to relations of fundamentality: *a* is more fundamental than *b* because *a* exists to a higher degree than *b*, or *a* is the fundamental entity in the world because *a* exists to the fullest.

[8] For Plotinus' view on degrees of being, see O'Meara (1995: 60-78).
[9] For Avicenna's degrees of modes of being, see Chapter 14 of Wisnovsky (2003).
[10] See Alston (1993: 148-53).
[11] See Walbridge (2004) for a discussion of Suhrawardi's philosophy of illumination (*Ishraq*).
[12] See Nasr (1972) for a discussion of Mulla Sadra's view on unity of being which amounts to a theory of degrees of being.
[13] McDaniel (2009; 2010; 2013; 2017)

This is how it will go: In Chapter 1, I offer an overview of the literature on fundamentality by categorising this notion into two main strands: absolute fundamentality and relative fundamentality. The former is when something is more fundamental than all other entities, and the latter is when something is more fundamental than another but itself could be less fundamental than something else. I offer a detailed account of each of these notions of fundamentality by explaining their respective features. In doing so, I intend to cover a wide range of debates about the hierarchical structure of the world in the last two or three decades. Of course, such a broad literature review always comes with some shortcomings, but for the purpose of this thesis, we will have a good grasp of what is meant by fundamentality by the end of Chapter 1. At the end of Chapter 1, I will pose the question that kickstarts my contribution to metametaphysical debates: even though we know what is meant by fundamentality, we still don't know what makes something fundamental (or more fundamental than another).

My answer to this question is meta-ontological. As I noted, we must seek the answer in what is genuinely primitive, and that has to involve the notion existence (or being; I used these two terms interchangeably). But if we are to justify the structure of the world using a notion, we need to know what that really is. So, in Chapter 2, I speak about being and what we might mean by it. At the heart of this endeavour are two opposing views about existence. One takes existence to have one sense (we shall call this the univocalist view of being), and the other takes it to have many senses (the equivocalist view of being). The main objective of Chapter 2 is to offer an account of each of these views and show what are the benefits and shortcomings of each. By the end of this chapter, it will be clear that neither view could account for how things are in any satisfactory manner.

After dismissing both theories of univocality and equivocality of being as adequate meta-ontological views, I must offer an alternative to fill the theoretical gap. This is the task I shall undertake in Chapter 3. At the beginning of Chapter 3, I will offer a more detailed argument for dismissing the two major meta-ontological views by explaining that the disagreement revolves around a confusing sense(s) of being with kinds of being. I will then move on to offer my alternative view: the theory of Degrees of Being, which, although influenced by both the Medieval philosophy of the Islamic world (especially Avicenna and Suhrawardi) and recent works by Kris McDaniel (2009, 2013, 2017), it differs from them to some great extent. In Chapter 3, which is perhaps the core of this thesis, I will present a theory of Degrees of Being that takes existence to have only one sense (hence adovocating a form of ontological monism) while taking existence (in that singular sense) to come in degrees, such that different degrees or intensities of existence correspond with different kinds of being (hence keeping my view compatible with ontological pluralism). I will then showcase this view of degrees of being with some first-order ontological claims, not only for the reader to see what is meant by this meta-ontological view but to show that my preferred theory is compatible with most ontological ideologies.

I should note here that although the present work is meta-ontological in nature, using first-order ideological claims are, at points, inevitable. I will utilise first-order theories to clarify my points – to avoid the confusion that the purely abstract theorisation could cause. But it is also important to see how the theory of degrees of being could be used in metaphysics. I do believe that my version of the theory of degrees of being is compatible with most first-order metaphysical views, but at the same time, the merits of some theories are more starkly recognised compared to others when seen in relation to this meta-ontological theory. In fact, without really aiming to expand on this issue, I hope my reader would see how easily problems around existence or non-existence of different kinds of being could be solved when committing to the theory of degrees of being. So, there is no need to argue against the existence of certain kinds of entities, such as numbers, universal properties, events,

etc., simply because one can include them and give them a lower status than those entities that one takes to exist. However, I keep my distance from metaphysical side-takings in controversial matters, and when I mention such cases, I shall always do so only to showcase an aspect of my meta-ontological theory without engaging in debates around that subject.

Chapter 4 links the meta-ontological side of my thesis to the meta-metaphysical side with which I will have begun this whole endeavour. I shall introduce yet another notion in this chapter, which we are all generally familiar with: reality. I will argue that reality and existence are closely connected notions in the way that reality is how existence is manifested (response to EK: this point is explained in Chapter 4, though not with particular reference to Kant). Our meta-ontological theories are always derived from what we take to be reality, but this does not mean that existence is posterior to reality. We arrive at theories of being based on reality because only through reality and its structure do we have access to the existence of entities. Thus, reality is posterior to existence rather than the converse. So, my main claim in Chapter 4 is that reality is the manifestation of existence, and if we take existence to come in degrees (as I take it to be the case), then so must reality. This chapter is where I will be most engaged in first-order theories to show the coherency of my view. This is because I will need to rely on some metaphysical assumptions to showcase the gradation of reality. Here, I will offer a view of the world in which the reality of entities could be determined by measuring (for lack of a better word) the distance between each entity and its mind-independent bases. I will accept the most common definition of reality that something is real (or, as I will say, 'absolutely real') just in case it exists independent of the human mind. So, my cat, Baudolino, is fully real because he is not a mind-dependent entity. But the universal property of 'being a common cat' is perhaps mind-dependent. My argument in Chapter 4 is that it is not the case that mind-dependent entities are simply non-real; instead, I offer this means for measurement – akin to peripatetic genus-species classification of entities – to say, for instance, that the universal property of 'being a common cat' is less real than being a particular cat (like Baudolino) but still more real than, say, the universal property of 'being a member of Felidae family.' The latter property is further apart from Baudolino than the former property, which is one way of measuring the distance of something from a mind-independent basis. This is, of course, a simple example, and there are way more complex cases to engage with, as I shall do in Chapter 4, but I will show that the result is always a graded view in which entities are considered more or less real than others. Reality is graded as such, I will argue, because it manifests existence, which we will have found to be best described to come in degrees.

Having arrived at the graded view of reality as manifestation of degrees of being, I will finally return to the subject of the structure of the world. I will open Chapter 5 with a claim that two notions of 'the world' and 'reality' are synonymous because they both are the terms used to describe 'all that is there.' Reality, as shown in Chapter 4, is structured according to principles of degrees of being, meaning that the structure of the world is ontological. The question posed in Chapter 1 is what makes *a* more fundamental than *b,* and now, in Chapter 5, I will finally have an answer to that question: it is the degree of being that *a* enjoys that makes *a* more fundamental than *b* (which enjoys a lower degree of being than *a*). But there is a host of philosophers who take fundamentality to be a primitive (and consequently a structural) notion in its own right. My main task in Chapter 5 is to demonstrate that being is a prior notion to fundamentality. The slight problem is, however, that there are quite a few competing views about relations of fundamentality, which are not necessarily similar to one another, and I must show that my version of the theory of degrees of being underlies the principles of all these views. I argue that, with some exceptions, these views could be grouped into two main camps: Lewisian and neo-Aristotelian camps. The Lewisian camp is concerned with natural properties, while the neo-Aristotelian camp is the one discussed for the most part in chapter one. I first show the superiority of my version of the theory of degrees of being to David Lewis'

naturalness. After that, I will engage with Karen Bennett's 'building theory' as a representative of neo-Aristotelian views. By the end of Chapter 5, I will have shown that the theory of degrees of being is a genuine contender for the task of explaining what makes something more fundamental than another and that it should be preferred to other views because those could be characterised in terms of degrees of being, but not vice versa.

The present work has, then, two interrelated aspects, a meta-metaphysical one and a meta-ontological one. Both of these aspects, I believe, open some new paths in our understanding of the world. Firstly, my meta-ontological view brings the opposing camps closer to one another and perhaps offers them a way to accept their opposite views under the theory of degrees of being. The other models of the theory of degrees of being do not seek to close this theoretical gap – they do even reinforce the disagreements. Secondly, I show the significance of any meta-ontological theory, not just mine, by showing that nothing could be considered *metaphysically* primitive other than being. However, I build on this latter point to demonstrate the theoretical fruitfulness of the theory of degrees of being and its superiority to other meta-ontological theories in capturing the structure of the world.

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When I was doing my Master's at the University of Sheffield, my supervisor, Eric Olson (to whom I am forever indebted), once told me that he found my metaphysical views quite mystical. Back then, I felt hurt by even the thought of being associated with mysticism. I do not think the version of the theory of degrees of being presented in this thesis is in itself 'mystical,' but now I feel more comfortable with being associated with mysticism – I even cautiously embrace it. I come from a part of the world that has mysticism sewn into its cultural fabrics for centuries. An Iranian person grows up reading classical poetry; there is no way out of mysticism in those poems. Avicenna was a peripatetic philosopher whose works are sometimes so cumbersome with logic that they take the joy out of life, but even he wrote mystical treatises and parables. This thesis is a work of philosophy in the standard sense of the term, but there are sprinkles of my Iranian-ness here and there, which Eric might call mystical – and I think that is a positive thing to bring back to the way we do philosophy.

1. The World

All that there is, together, form what we call *the world*. The world, in the words of Milton K. Munitz, "is thought as simply 'everything,' where in the use of this term, no special prominence is to be given to the component word 'thing' as differentiated from 'fact' or 'event'."[14] I call anything that exists, regardless of its ontological category, an entity: physical objects, abstract entities, facts, events, processes, etc., are all entities. The world, then, is the totality of entities. Describing it in this way, which sounds entirely legitimate, the world is nothing over and above a conjunctive term that does not refer to anything or any class of things. But the world is, intuitively at least, something in its own right to us. Even though the world is the totality of entities, there is something that makes it *The World* and not just a random pile of entities. From the earliest stages of the history of philosophy, philosophers have attempted to explain how everything from this totality and at the centre of these attempts, we can always find a tendency among these philosophers to theorise about *the structure of the world*. The thought, then, seems to be that the world is the totality of all that exists, but since there is a structure to this totality, it is not simply a conjunction. The structure is what makes the totality of things 'the world.' As a result, a host of theories about the structure of the world have been offered over the centuries, many of which radically oppose others. In the last few decades, there has been a developing interest among analytic metaphysicians in how the world as a whole is structured, which has resulted in rich and extensive literature about the notion of fundamentality. In this chapter, I offer a summary of the theories of fundamentality in analytic metaphysics, arguing that we have a good understanding of the hierarchical structure of the world and the relations of fundamentality, but we are still in the dark about what makes something more fundamental than another. In a way, we can describe how the world appears to be structured, but we cannot answer why it is structured as such. As I already noted in the introduction, the present work is an attempt to respond to the latter question, but first, we should have a clearer understanding of how we think the world is structured.

In this chapter, I shall go about summarising the analytic theories of structure and relations of fundamentality as follows: In the first section, I explain what I mean by 'structure' and how we may think of the structure of the world. It is worth mentioning here that I will get back to the notion of the structure of the world in Chapter 5 (the final chapter of this thesis), and there we shall revisit many of the claims made here. In this chapter, my primary concern is with how the notion of the 'structure of the world' is conceived by contemporary metaphysicians. At the core of the modern understanding of the structure of the world lies the notion of fundamentality, which I discuss in the rest of this chapter. Fundamentality is understood primarily as a relation such that something is more fundamental than the other. In §1.2.1. I discuss the relative notion of fundamentality and discuss different features of relations of fundamentality that imply the relative sense of this notion. Here we shall see how the world could be structured in a way that less fundamental entities need the more fundamental ones in order to exist or be what they are. As such, the relations of fundamentality form chains of entities which we see as inherently 'structural.' I shall then discuss another sense of fundamentality in §1.2.2., which I will call the absolute sense of fundamentality. This sense of fundamentality is historically associated with the term, taking some entities to be fundamental and all other things to derive from them. These entities are the termini of chains of fundamentality such

[14] Munitz (1970), 201-2.

that nothing is more fundamental than them. One central issue with the absolute sense of fundamentality is whether they are at all possible and also whether they are necessary for chains of fundamentality. I discuss these issues as well as discussing the features of absolutely fundamental entities. Finally, in §1.3. I will arrive at my point that we have a good grasp of what fundamentality is, but there is an underlying problem with our theories of the structure of the world that we must address: what makes something fundamental?

1.1. Thinking about the Structure

Metaphysics is, at its core, an enquiry into the structure of reality. Reality means all that there is, all that there once was, and all that there could be: all the entities[15] which constitute the world.[16] The world appears to have a structure; all around us, we encounter relations of dependence obtaining between different entities to form structures: that is, we encounter states in which some entities need other entities in order to be. These relations between objects of our everyday lives suggest that not only is the world structured, but it is also structured *hierarchically*. If entity *a* depends on an entity *b* for its being, then intuitively, *b* is in some sense prior to or (higher in level than) *a*. This desk in front of me is made of some pieces of wood; one might argue that since this desk's existence and/or nature depends on these pieces of wood (alongside some screws and other stuff) then the existence or nature of the pieces of wood are somewhat prior to that of the desk.[17] Such relations also expand to form chains of hierarchical structure in which *b* depends on *c* for its being, and therefore *c*'s level in the hierarchy is higher than *b's* and consequently than *a's*. Our scientific practices also support this intuition since sciences operate at different levels or *scales*. To put it crudely, this is to say that an enquiry into the atomic structure is an enquiry about a more fundamental level of the world than a zoological enquiry.[18]

The intuition that the world is hierarchically structured is reinforced by our experiences of material objects of everyday life, which constitute part-whole relations, making our immediate understanding of 'the structure of the world' *mereological*. Consider the wooden desk mentioned above: those pieces of wood used in constructing that desk are themselves made of carbon, oxygen, and hydrogen atoms, and each of those atoms themselves consists of subatomic particles.[19] We can speak of the material structure of the world from this viewpoint which, despite the complexities of the world, would remain straightforward in that all there is to the structure of the world would be part-whole relations.

However, this is not all that there is to reality. Many aspects of the world are not material. According to different first-order theories of metaphysics, entities of different kinds may or may not exist. Reality may consist of concrete and abstract objects. Sure, the existence of concrete physical objects

[15] I use the term 'entity' to refer to anything that exists regardless of the category they belong to. A material object such as this desk is an entity, and so is the number 42. If something exists, it is an entity.
[16] The terms 'the world' and 'reality' are used interchangeably in the recent metametaphysical literature. In Chapter 5 I show why this is more than just a word choice.
[17] This is a crude form of this argument that parts are metaphysically prior to wholes but not everyone commits to such s view as we shall find out later in this chapter.
[18] Tahko (2018), 237.
[19] Here again I am writing crudely for the sake of illustration. From a more scientific point of view, the desk cannot depend for its existence or nature on particular atoms, for instance.

is not a source of controversy (though there is a range of debate on what is or is not a concrete physical object), but the world could also consist of mathematical entities, propositions, events, facts or states of affairs, properties and relations, and fictional objects. In many cases, the abstract and concrete entities do not obviously relate (we will return to this in Chapter 4 and 5), and the existence of all these entities of non-physical kinds somewhat entail that reality has not one but many structures. The world is, indeed, rife with particular and unique structures. Some of these structures might overlap, and some might be completely separate from one another. Other than the mereological structure, there is the causal structure, the constitutive structure, the determinate-determinable structure, the set-theoretic structure, and many others. Let us, following Naomi Thompson, call these *local pockets of structure*.[20] All these local pockets of structure shape reality, but these would not necessarily fit together to form a greater unified structure. So, the local pockets of structure form the world, but they might do so in such a way that could be very messy indeed. But even if that is the case, it does not mean the world has no structure. All that this view entails is that the way the world is structured is not necessarily unified or tidy.

Despite this apparent messiness of the structure of reality, we tend to make metaphysical claims about how all the entities together form this singular thing called 'the world.' We still take all these local pockets of structure as standing in some relation to one another. The job of metametaphysics is to justify something to the effect of the grand picture of the structure while maintaining pluralism when it comes to local pockets of structure. In a sense, metametaphysics aims to tidy up the mess that the plurality of the local pockets of structure has made. The (meta)metaphysicians tend to tidy up this supposed mess by finding structural principles to explain various relations in different pockets of structure in a more unified sense. This could classify all relations that form this or that structure in a unified class or could point at yet other structural relations which relate one structure to another in a hierarchical (or even flat) way. Whatever this manner of unifying the structure might be, it looks as if metaphysicians find it necessary to tidy the messy world up.

But if the world is messy, why must we make it tidy? Or is it even possible to tidy up the world if it really is messy? If the world is not neatly structured, then the theoretical attempt to tidy it up would be nothing but to impose a neat structure on the inherently messy world. Adopting P. F. Strawson's terminology, such an approach is a clear example of revisionary metaphysics. Strawson speaks of two major approaches among metaphysicians: one is what he calls *descriptive metaphysics* – which is to attempt to describe the actual structure of the world as we experience it – and the other is what he calls *revisionary metaphysics* – which is the practice of actively seeking 'better' kinds of structure which could explain the world even though they are not compatible with our experience of how things exist.[21] If a philosopher tries to tidy up the world, even though it does not appear to have a neat structure, their metaphysical exercise could be described as revisionary. In a sense, they are 'imposing' a structure on the world that is not necessarily compatible with reality. Regardless of whether we could make a judgement about which of these two approaches to metaphysics is 'preferable,' it is fair to claim that the majority of contemporary analytic philosophers lean towards the descriptive approach since it is more sober and is more compatible with our best scientific understandings of the world. So, if analytic metaphysicians want their status as following a descriptive approach to metaphysics saved, they must come up with a justification for their tendencies to tidy up the messy world in their theories.

[20] Thompson (2019), 110.

[21] Strawson (1959), 9. For a good but brief treatment of Strawson's *descriptive versus revisionary metaphysics* see Susan Haack's (1979).

There are two main justifications for this: first is the more Kantian response that the world in itself is not what matters to metaphysics, but the world as we experience it is. From this point of view, the world we philosophise about is the world that appears to us, as opposed to the world as it is in itself.[22] Speaking of the structure of reality is, therefore, nothing but speaking of the *structure of our experience of reality*. That is the same when we speak of local pockets of structure. For instance, the mereological structure of the material world is nothing more than the structure of our experience of the material world. We see that wholes are formed of parts, and we make theoretical assumptions based on what we understand as parthood. The reality, however, might be completely different. In reality, the parts might not actually form any wholes as some contemporary philosophers of mereology suggest,[23] or objects in the world might compose infinitely many composite objects automatically, the composites that we might not consider objects in their own right.[24] What our system of understanding (in some such theories, our language) does is to impose a structure on our experience in order to make sense of all this mess. The work of metametaphysicians, from this point of view, is to theorise about the nature of structure we (linguistically, epistemically, etc.) impose on the world we experience, regardless of whether such structure exists in the world.

The second approach (which, as we shall see in the rest of this thesis, is my preferred approach) is that our theoretical tidying up of the world is not an act about the world, but what we do in order to categorise what there is so we can talk about the world more easily. The world is messy, there are overlapping structures, and there might not be any unified structure to the entire world. What metametaphysicians do is not so much to 'impose a structure on the world' but to classify different structures according to some shared properties in order to untangle the very messy hierarchical chains of dependence. In fact, the job of metametaphysicians is to identify what features are essential to structures in order to recognise those features in other structures. This, in effect, is to find similarities between structures, but when these similar features are identified, one might also find them between different structures to see whether local pockets of structure could make a second-order structure themselves or not.

Let us put all these confusingly abstract thoughts into some context by reviewing a few theories about the structure of the world.

1.1.1. Some Views on the Structure of Reality

One of the most widely discussed accounts of the structure of the world in the analytic tradition is Rudolf Carnap's theory presented in his *De Logische Aufbau der Welt* (*Aufbau* from here on).[25] Among Carnap's goals in *Aufbau* is to offer an account for constitution systems, which are linguistic

[22] This is the foundation for Kantian *transcendental idealism* that we can only cognise objects within the bounds of possible experience. See Book II, Chapter III of Transcendental Analytic is his *Critique of Pure Reason* (Kant 1998: 354-65).

[23] For this view, known as mereological nihilism, see Van Inwagen (1990), §8 and §9; Schaffer (2007), 175-8; Liggins (2008); Contessa (2014);.

[24] This is called mereological universalism, according to which for a composition presence of some objects is enough. If *x, y* and *z* exist as material objects, there necessarily is a composite object that has *x*, *y* and *z* as its parts. See Van Inwagen (1990), §8; Rea (1998); McGrath (1998); Van Cleve (2008).

[25] I say 'a theory' but as Leitbeg & Carus note the content of *Aufbau* "cannot be reduced to one doctrine or preoccupation" (2020: Supplement A). Carnap's canonical book was published in 1928 but was translated to English only in 1967 as *The Logical Structure of the World.*

frameworks supplying the terms (or, perhaps, names) for objects and concepts used in sciences.[26] The function of constitution systems is to rationally reconstruct the entire formation of reality.[27] Carnap explains these constitution systems in terms of a graded structure of classes or types. Following Russell and Whitehead, in their *Principia Mathematica*, he positions 'individuals' at the bottom of the structure, and from these individuals, he constructs the classes of individuals and then the classes of classes of individuals.[28] In this manner, Carnap describes the structure of the world as consisting of levels, each of which corresponds to a different *type* of object.[29] The objects within a certain type are differentiated from one another through what Carnap calls *explicit definition*,[30] whereas the *definition in use* constitutes an object of a 'higher' type from an object of a 'lower' type.[31]

Carnap continues his explanation of the structure of the world with the "quasi-analysis of the autopsychological domain' which deals with the experience of the world and communication of it with other minds, establishing a theory of intersubjective sphere which provides the ground for scientific enquiry.[32] It is not the remit of this thesis to further analyse Carnap's views, but it must be noted that Carnap's notion of structure is ultimately linguistic and, to a great extent, phenomenalist. Carnap's *Aufbau* deals with objects on a purely subjective basis. The graded picture that he offers as the logical structure of the world is not a model based on what reality looks like but on how we represent reality in our language. This, in effect, is not far from what I described above as the 'post-Kantian' approach: the structure of the world that Carnap theorises about in *Aufbau* is primarily the structure of the linguistic representation of the world.

The second view I see relevant to discuss is found in Theodore Sider's *Writing the Book of the World* (2011); Sider's view is very much influenced by David K. Lewis' theory of natural properties, which he expands to offer a metametaphysical theory about the structure of reality. Lewis himself rarely directly mentioned the notion of structure (most likely because it was not the spirit of metaphysical enquiry in his lifetime), but many of his theories have been central to forming the metametaphysical question about the structure of reality. His views regarding natural properties, perfect naturalness, and the degrees of naturalness of properties played a significant role in developing the theories of the structure of the world (especially regarding the notion of fundamentality, as we will see at different junctures in this thesis). Here I decided to offer a brief account of Sider's view about structure instead of Lewis's, mainly because I will write more extensively about Lewis' views in Chapter 5 when I compare his theory of naturalness to my preferred view about the structure of the world.[33]

For Sider, 'structure' has a purely explanatory function. He maintains that the world has an inherent structure which is graspable if approached with the right tool. This right tool, just like it was with Carnap, is linguistics. Sider believes that ordinary language fails to grasp the structure of the world because it fails to group the entities in the world into objective classes. Hence, he pushes for a

[26] Leitbeg & Carus (2020), Supplement A.1.
[27] Carnap (2003), §100.
[28] *Ibid.* §33 & §41.
[29] Pincock (2009), 952.
[30] Carnap (2003), §38.
[31] *Ibid.* §39.
[32] The detailed description of levels is given in Part IV of *Aufbau*. This includes 'autopsychological objects' in the lower level (§§106-22), 'physical objects' in the intermediate level (§§123-38), and 'heteropsychological and cultural objects' in the higher level (§§139-56).
[33] See §5.3.

reconceptualisation of metaphysics in terms of a language through which we can explain the entities in the world as they are by grouping them in an objective manner. This is what we shall call *carving reality at joints*.[34] A joint carving notion is one that captures reality just as it is, which brings us to the Lewisian element in his theory. Properties are natural, for Lewis, when they capture facts of resemblance, when they capture causal powers of things, and when they carve reality *only at joints*.[35] By 'carving only *at joints*,' Lewis emphasises the function [or essence] of sparse properties as "characterising things completely and without redundancy."[36] For instance, we can have the property of "being a carrot in my kitchen or the Tower of London", but such a property does not carve the reality at joints, or to use Lewis' terminology, such property is not natural (or sparse). On the other hand, the property of 'being a carrot' carves reality much better at joints because it adequately captures facts of resemblance.[37]

For Sider, a joint carving notion functions just the same: such notions describe the world completely and without redundancy. Moreover, we might also be interested in "which notions carve reality *perfectly* at joints."[38] Sider's unenthusiastic response is that certain concepts of physics, logic, and mathematics carve reality perfectly at joints, but this should not really matter. We can discuss what are the instances of joint-carving notions without necessarily coming to any agreements; what matters is to "explain what is at stake in such disputes."[39] Sider claims that his approach to structure could explicate what 'really' or 'genuinely' is the case, but to do so, we must reconceptualise (meta)metaphysics. He believes we can only speak of structure in terms of expressions of grammatical categories. For Sider, 'structure' is only a matter of describing reality in joint carving terms; thus, we must construct a language containing the right predicates with the right logical apparatus, all expressions of which are joint-carving.[40]

The third and final view I should mention is not associated with only one philosopher; instead, it is a view upon which most of the recent theories about the structure of the world have been developed. For now, let us call these the *mainstream views* about the structure of reality – I use a plural form because even though these views share many features, they do not entirely disagree with one another. The mainstream views' approach to the notion of structure is essentially the same as the intuitive understanding with which I started this chapter. Building upon the intuition derived from the way material objects are (or appear to be) composed, the mainstream views tend to explain the structure of the world as being hierarchical such that some entities are more basic than others and that the less basic entities depend on, emerge from, or are built by the more basic ones. Now, although these views are often modelled on mereological structures, mainstream views about structure account for all local pockets of structure, not just material ones. Some proponents of the mainstream view go as far as defending the view that there could be a singular structure of the world such that all local pockets of structure are parts of some hierarchical structure themselves, standing in similar sort of relation of more and less basic to one another. Regardless of whether we believe in the singular structure of the world or not, the structure of the world from this viewpoint could be seen as a complex network of structural relations creating many chains of dependence forming the world at every level. However, unlike theories offered by Carnap and Sider, the structure of the world

[34] Sider borrows this metaphor from Plato (*Phaedrus*, 265e).
[35] Lewis (1983), 13.
[36] Lewis (1986), 60.
[37] For more detailed examples see Nolan (2005), 18-26.
[38] Sider (2011), 5.
[39] *Ibid.* 7.
[40] Sider (2011), 8.

for the theorists of mainstream views is not, in essence, linguistic or logical. Instead, the philosophers of the mainstream views tend to offer *more apparently concrete* accounts of the structure of the world. The relations they speak of remain the relations of dependence; these philosophers argue for the objective nature of such relations holding between entities of the world.

To better understand the mainstream views, let us briefly look at one of the more recent examples of such views, as offered by Karen Bennett in her *Making Things Up* (2017). Bennett speaks of the hierarchical structure of reality in terms of building. She believes that all questions of metaphysics are ultimately questions of building.[41] By this, she means that questions of metaphysics could always be reduced or rephrased to questions such as what 'gives rise to' or 'makes up' or 'generates' another thing, or perhaps questions of what something is 'constructed from' or 'based on.' On this assumption, Bennett offers a metametaphysical theory that is formed around what she calls *building relations*. In her view, the world is a complex structure of different buildings; these buildings could overlap – could merge into or branch away from one another. There could also be some buildings that are completely isolated from any other building. However, it is crucial that they all form a 'complex' that is the world. That they form a 'complex' does not mean that there is a neat and unified sense of what the world is, but only that they are all there is to 'the world.' This is, in effect, to accept the messiness of the world without the illusion of tidying it up. Bennett intends to offer a feature of this messy world that is shared by all its buildings. But what are these buildings? These buildings could be material structures, facts (as in fact grounding), or properties as built by other properties (like the property of 'being a carrot in my kitchen or the Tower of London'), or even, Bennett says, causal chains. It is also conceivable that at least some of these buildings (or structures) could have some building relations to other buildings (for instance, one could argue that facts could be grounded on other facts forming some chain of facts that is ultimately built upon some events or material objects).[42] So, building relations hold between entities at every level, and they could also connect different levels.[43]

Mainstream views about the structure claim to be rooted in our intuitions, and, indeed, these views tend to be more easily grasped by non-philosophers. It is also worth mentioning that because of this intuitive nature, such views have been defended well before the 20th Century. In the last thirty years or so, these mainstream views have been commonly grouped under the name 'theory of fundamentality'. The theory of fundamentality offers a complex hierarchical model of the world in which entities stand in relations of '*more/less fundamental than*' to one another. As a result of the popularity of this approach to the structure of the world, the fundamental structure of reality has been described with great precision in contemporary literature. In what follows, I will offer an overview of these descriptions, and features and conditions associated with fundamentality. After doing so, I will focus on speaking of what remains lacking in our account of the structure of the world regarding fundamentality.

[41] Bennett (2017), §2.1

[42] The hierarchical structures of facts are the subject of the much-discussed notion of *grounding*. See Rosen (2010), Audi (2012), Fine (2012), and Trogdon (2013).

[43] Bennett (2017), §2.3 & §3.2.2.

1.2. Fundamentality

As I have said in previous sections, the enquiry into the structure of reality is at the core of metaphysics. If we wish to capture the spirit of such enquiry into one question, we could ask, 'what is the world *fundamentally* like?' The term 'fundamentality' also captures the true sense of what a hierarchical structure of reality entails. Where entity *b* depends for its being or nature on entity *a*, we would say that *a* is fundamental and *b* is derivative.

> **Fundamentality** For entities *a* and *b*, *a* is fundamental to *b* iff *a* is more basic than *b,* and *b* relies on *a* for its being or nature.

Now where there is an entity *c*, upon which *b* depends, *c* is the fundamental entity from which both *b* and *a* derive. In this case, we can either have a crude view of fundamentality that only 'the (ultimately) basic entity' (here *c*) is fundamental or that *b* is more fundamental than *a* and *c* is more fundamental than *b*.[44] This second model is admittedly closer to our intuition about the structure of the world but still remains highly simplistic. The simple way to capture fundamentality in both these models is as follows:

The reality appears to us as having an inherent hierarchical structure. As we said before, all the different local pockets of structure, regardless of whether there is any connection between them, form, together, what we call 'the world.' Again as we said above, in the last two or three decades, analytic metaphysicians offered a variety of theories to explain this blanket structure of the world in terms of fundamentality. Each of these theories results from committing to different metaphysical principles and, therefore, describes the hierarchical structure of the world as slightly different to the others. Ricki Bliss and Graham Priest propose four principles and claim that any given theory of fundamentality is committed to one or more of these principles:

i. **The hierarchy principle**: Reality is hierarchically structured.
ii. **The foundation principle**: There is a terminus to chains of dependence/grounding.
iii. **The contingency principle**: Fundamental entities exist contingently.
iv. **The consistency principle**: The dependence structure has consistent structural properties.[45]

Contingency and *consistency principles* are not our concern in this short survey, mainly because they do not help us reach that *more standard* view of fundamentality. Committing to the contingency principle implies a modal approach to the structure of the world, which has largely been ignored due to the assumption that claims about structure are always hyperintensional.[46] Additionally, the consistency principle is largely unexplored, not because the philosophers of fundamentality are unlikely to commit to this principle but because most such philosophers assume structural consistency in any case. Among these four principles, however, *the hierarchy principle* is perhaps the only one that most philosophers of fundamentality in the last two decades agree upon. It even looks as though the hierarchy principle is an essential feature of any theory of fundamentality.[47] A foundationalist theory of structure (any theory subscribing to *the foundation principle*) takes the

[44] Which, in some cases makes *c* more fundamental than *a* as well. See §1.2.4. for discussion.
[45] Bliss & Priest (2018), 2.
[46] I do not share this claim but since I am presenting a more widely accepted conception of fundamentality, I will not delve into this any further.
[47] I do not agree with this claim either. Fundamentality is evoked even in the flat world, but perhaps trivially: in the flat view of the world 'everything is fundamental'. I speak about this in more detail in Chapter 5.

structure of reality to have a rock bottom, where everything else is grounded on and/or from which everything else derives. Historically, the foundationalist theories about fundamentality formed the majority of theories of the structure of the world, but they attracted a considerable amount of opposition in the more recent literature.[48]

In what follows, I examine the hierarchy and foundation principles and show the entailments of committing to these principles by focusing on the features associated with each of them in contemporary literature. As I mentioned already, the hierarchy principle is widely accepted by philosophers of fundamentality; therefore, both foundationalist and non-foundationalist philosophers of fundamentality are committed to this principle. The same cannot be said of the foundation principle, of course. The kind of fundamentality described as a result of committing to the hierarchy principle is what I shall call 'relative fundamentality'. Committing to the foundation principle in addition to the hierarchy principle would result in a kind of fundamentality that I shall call 'absolute fundamentality.' Let us go through each kind in turn.

1.2.1. Relative Fundamentality

The definition of fundamentality I offered earlier captures the general idea of fundamentality, but in reality, there are few (if any) instances as simple as that. In a sense, that definition is only a toy version, so we could grasp what is meant by relations of fundamentality. However, this definition fails to capture the more complex features of relations of fundamentality, especially when these are not simple relations held between only two entities. In a world in which there exists one fundamental entity and one derivative entity, the above definition would suffice, but ours is not such a world. So we must account for relations of fundamentality in a more complex structure where more than two entities are standing in structural relations to one another.

Our world contains so much: atoms, crocodiles, solar systems, natural numbers, sentences, social contracts, headaches, sadness, hunger strikes, and innumerable other things. As already mentioned, many of these entities,[49] if not all, depend on some other entities in order to exist or to have their particular nature (i.e. be what they are). Social contracts, for instance, might depend on the norms and social values of groups of people living together in a certain place at a certain time. However, some entities seem to be somewhat more important than others; without human beings evolving in a certain way and developing their societal structures and arrangements, something to the effect of a social contract could never have come about. So, there is a hierarchical nature to the world that makes some kinds of entities more metaphysically significant than others.

What gives metaphysical significance to some kinds of entities compared to others is a sense of priority that is not (necessarily) spatiotemporal. Take, for instance, a loaf of sourdough bread: when you cut the bread, you see many holes (or, as the hipsters have it: air bubbles) in it. The holes in the sourdough bread depend for their existence and nature on the bread itself; so, the bread is in a way prior to its holes, but this is not a temporal or a spatial priority: the sourdough bread has become what it is while the pockets of air were being formed inside it. Another example: suppose there is a labour strike affecting the services of London Underground; we can explain the situation by saying that "there is a strike *due to the fact* that the TfL staff are refusing to work and instead picketing in

[48] See Simons (1987), Cameron (2008), and Bliss (2013).
[49] I should remind my reader that I use the word 'entity' for whatever that exists.

front of stations." In this explanation of the state of affairs, 'the staff's refusal to work and instead picketing in front of stations' is prior to the fact that there is a strike, but this priority is not temporal. We shall call this special sense of priority, 'metaphysical priority.'

Now, metaphysical priority is the result of a particular relation that we shall call 'more fundamental than' (MFT).[50] *MFT* is a relation holding between *x* and *y* when *x* is prior to *y* in a special way; One particularly strong case of this special way of priority is when *y* depends (at least partially) on *x* for its being or nature or when *y* holds (at least partially) in virtue of *x*. Now, let us assume there is a *z* which is more fundamental than *x*. As such, one cannot call *x* 'fundamental' because although it is more fundamental than *y* (meaning that *x* is metaphysically prior to *y*), it still is less fundamental than *z*. So, with the notion of metaphysical priority at the core of our view, the world is structured through chains of fundamentality in which things stand in more or less fundamental relation to one another. This is the skeleton of the theory of fundamentality, which takes the world to be entirely structured hierarchically.

What is significant in this hierarchical structure is that entities at different levels of the hierarchy do not enjoy their 'fundamental' status straightforwardly. 'Fundamentality' alongside the notion of 'metaphysical priority' is inherently a relative notion. In what I proposed above, *x* is presented as both fundamental and derivative; *x* is 'fundamental relative to *y*' and is 'derivative relative to *z*.' Therefore *x* is relatively fundamental. *Relative fundamentality* is, therefore, a natural consequence of the hierarchical structure of the world. Chains of fundamentality are formed of entities that are relatively fundamental, and their positions on the chain indicate what is more and what is less fundamental than them. This positioning, this forming of chains of 'relative fundamentality', is complex and requires detailed explanation. We need to clarify the conditions and features of relative fundamentality if we are to theorise about them in order to explain the structure of the world. I claim that the world is a collection of local pockets of structure. These local pockets of structure are themselves collections of chains of fundamentality. The world might have a singular structure that follows the same pattern (i.e., a chain of fundamentality) or might be just a set of all local pockets of structure, each of which is formed of chains of more or less fundamental entities. Either way, we must first understand the features and conditions of relative fundamentality to be able to successfully account for the structure of the world.

In the recent literature on fundamentality (mainly corresponding to the historical literature on the subject), relations of fundamentality are assumed to possess three main features: *irreflexivity*, *asymmetry*, and *transitivity*. I shall examine these features to determine whether they are as essential as many philosophers of fundamentality take them to be. These features are not taken to be primitive, so they should be defined or (at least) characterised in some way, but they are often taken to be so clear or intuitive that theorists assume that their readers have no difficulty understanding them. As we shall see, such assumptions might cause a good deal of confusion.

1.2.1.1. Irreflexivity

The first feature of the relative fundamentality to consider is the *irreflexivity* of MFT relations. This feature of relative fundamentality entails that nothing is more fundamental than itself. In cases of

[50] Bennett (2017), 40.

ontological dependence, for instance, nothing depends for its being or nature on itself, or in cases of metaphysical grounding, nothing grounds itself (or no fact obtains in virtue of itself). In general, the Irreflexivity of MFT relations implies that nothing (metaphysically) explains itself.

Irreflexivity: for all MFT relations *R*s, and all *x*s, ¬(*xRx*)

Philosophers of fundamentality often take this feature of relations of fundamentality to be too obvious to require any further explanations. Gideon Rosen, for instance, claims that no fact can make itself obtain and gets on without further elaboration.[51] Jonathan Schaffer considers irreflexivity a primitive notion that makes any further explanation of it redundant.[52] Kit Fine also assumes irreflexivity in his 'The Question of Realism', though he does not explicitly call it 'irreflexivity' of relations of dependence.[53] Finally, Brian McLaughlin and Karen Bennett also note "[Ontological dependence and metaphysical grounding] are widely (though not universally) thought to be irreflexive… Nothing can ground or ontologically depend upon itself."[54]

Despite the widely accepted assumption about the intuitiveness of the irreflexivity condition of MFT relations, during the past decade, there have been some attempts to argue that irreflexivity is, in fact, not so obvious and the theories of fundamentality are, perhaps, better off without this feature. Carrie Jenkins offers one such argument, claiming that many MFT relations are, at best, *quasi-irreflexive*.[55] She does not claim that relations of fundamentality[56] are predominantly reflexive; instead, she claims that there are plausible metaphysical cases which entail reflexivity of these relations. Take part/whole relations: Something *a* is a part of something *b* when *a* (together with some other things) composes *b* or is somewhat involved in how *b* functions.[57] Many metaphysicians agree that since everything is self-identical, entities (as wholes) are also among their own parts. As such, something is said to be a *proper part* of something else but an *improper part* of itself.[58] Now, if something is a part of itself, and if (as we said above) part/whole relations are among relations of fundamentality,[59] then we have a clear case of reflexive MFT relation on our hand. So, Carrie Jenkins and several other philosophers with a similar approach argue against assuming irreflexivity conditions for relations of fundamentality since "there are reasonable metaphysical views according to which some *x*s depend on themselves."[60]

The problem with this line of thought is that the counterexamples it offers are often, if not always, too controversial to be considered successful. Take the case of parthood mentioned above; at the face of it, this case is achieving its goal, but the sheer scale of controversial assumptions to raise this objection is overwhelming: Firstly, the metaphysical dependence of wholes upon their parts is a hotly debated topic and one that splits metaphysicians into camps. The debate over the relation between identity and composition is also among the classic controversies of contemporary metaphysics. Using

[51] Rosen (2010), 115.
[52] There are several instances of this in the entirety of Schaffer's work, but just for two such instances see Schaffer (2009), 364 & 376.
[53] Fine (2001), 15.
[54] McLaughlin & Bennett (2005), §3.5.
[55] Jenkins (2011), 268.
[56] I use 'relations of fundamentality' and 'MFT relations' interchangeably.
[57] A leg is part of a table, a remote control is part of a TV set, the left side of the football pitch is part of the football pitch, and the Book of Judges is part of the Hebrew Bible.
[58] See Kearns (2011) for a discussion of *improper parthood.*
[59] Even if one argues against the inclusion of mereological relations among relations of fundamentality we could still say that mereological relations entail ontological or essential dependence.
[60] Bennett (2017), 36.

counterexamples such as this is not helping the debate around the irreflexivity of relations of fundamentality – it might even distract the debate. Take another counterexample of this sort: Jessica Wilson and Bliss & Priest say that God has traditionally been seen to self-depend;[61] hence relations of fundamentality need not be irreflexive. However, regardless of whether this claim comes from a position of faith or just as an example to demonstrate a point, relying on a theological claim is no less controversial than relying on hotly contested claims of contemporary metaphysics.

Regardless of whether these counterexamples are compelling or not, however, philosophers of fundamentality are better off arguing for the irreflexivity condition of MFT relations instead of simply assuming it. There is, clearly, a reason for accepting irreflexivity as a feature of relations of fundamentality, for a simple reason: Irreflexivity of MFT relations (in fact, the one of any other MT [more … than] relations) is a natural consequence of the principle of the *indiscernibility of identicals*:[62] If *a* is to depend on itself or hold in virtue of itself, *a* needs to be more fundamental than itself; but to be more fundamental than oneself is a contradiction. Nothing can be more 'anything' than itself: if something is more fundamental (or more anything) than itself, then it is not identical to itself, and so, nothing can depend on or hold in virtue of itself.

It is, indeed, absurd for an entity to self-depend, but some find it even more absurd that something could stand as an absolutely fundamental entity "[popping] into being from nowhere and for no reason at all."[63] This argument, however, relies on a false dichotomy that either hierarchical structures have to be well-founded or the MFT relations have to be reflexive. But there is at least one other option: infinitely descending chains of fundamentality in which all MFT relations are irreflexive. As we will see below (§1.2.2.1), some theorists believe that there is something deeply wrong with infinite descent. Nevertheless (again, as we shall see), this concern should not be problematic for the way we take the world to be structured.

As it is, the irreflexivity of MFT relations appears to hold firm against criticisms. I also believe that the irreflexivity of relations of 'more…than' is very much intuitive. However, I do not find appealing to intuition very helpful. Irreflexivity might not be a primitive notion when it comes to characterising the hierarchical structure of the world, but it certainly is a core feature of chains of fundamentality that, as shown in terms of indiscernibility of identicals, could be easily understood.

1.2.1.2. Asymmetry

The second feature, namely the asymmetry of MFT relations, is closely related to irreflexivity.[64] Asymmetry is the feature of relative fundamentality that implies the metaphysical priority more

[61] Bliss & Priest (2018), 12; Wilson (2014), 560-1.

[62] This is the reverse of the better-known principle of *identity of indiscernibles* which entails that for every property *P*, object *x* has *P* iff object *y* has *P*, then *x* and *y* are identical. In formal language identity of indiscernibles would be $\forall F(Fx \leftrightarrow Fy) \rightarrow x=y$ and the reverse of it, the principle of the indiscernibility of identicals would be $x=y \rightarrow \forall F(Fx \leftrightarrow Fy)$. The conjunction of these two principles is sometimes called *Leibniz's Law*.

[63] Bliss & Priest (2018), 12.

[64] Here, I do not intend to elaborate on this close relation but in the literature on fundamentality, we find that Gideon Rosen takes irreflexivity to be a necessary companion to the asymmetry of relations of fundamentality, if not its natural consequence (2010, 115). In analysing Bernard Bolzano's theory of grounding, Fabrice Correia and Benjamin Schnieder also claim that irreflexivity is entailed by asymmetry (2012, 8).

clearly than the other features of fundamentality. This feature entails that if something *a* is more fundamental than something *b*, then *b* cannot be more fundamental than *a*.

Asymmetry: for all MFT relations *R*, and all *x*s and *y*s (where x ≠ y), if *xRy* then ¬(*yRx*)

As with irreflexivity, philosophers of fundamentality tend to include asymmetry in their theories with little (if any) explanations. The thought behind taking the asymmetry of MFT relations for granted is that without this feature, relations of fundamentality would be viciously circular. For instance, if relations of ontological dependence were symmetrical, then both '*x* depends on *y* for its being' and '*y* depends on *x* for its being' would be true; but if they were both true simultaneously, then we would have a circular case on our hand in which *x* needs *y* to exist which itself needs *x* in order to be. Elizabeth Barnes claims that ontological dependence is a relation that explains the connection between fundamental and derivative entities.[65] She says that the relation of dependence takes us from the derivative (the dependent) to the fundamental (the independent), and "any relation that plays such a role must be asymmetric".[66] Again, Paul Audi relies on the asymmetry of relations of fundamentality in his theory of grounding when he says, "there can be no pair such that each is determinant of the other."[67] Kit Fine, concerning grounding, says that asymmetry "supports the top-down approach in grounding where one starts with the fact that is to be grounded and work their way down to all of that fact's grounds, rather than the other way round."[68] And Lynne Baker points out that relations of fundamentality could not be defined without asymmetry because asymmetry is the single core feature of such relations.[69]

Again, just as it was with irreflexivity, the manner in which many philosophers take the asymmetry of relations of fundamentality for granted has attracted some serious criticism. For instance, Ricki Bliss and Graham Priest say that most theories of fundamentality do not offer any reason to suppose that relations of fundamentality are asymmetric – they are simply built on the assumption that MFT relations are asymmetric.[70] Elizabeth Barnes believes that the relations of fundamentality are plausibly asymmetric because they need to be as such in order to do the work we want them to do.[71] What Barnes implies here is that asymmetry is not an inherent feature of the structure of the world: symmetric instances that appear in different local pockets of structures show that asymmetry is not a necessary feature of the hierarchical structure of the world. Barnes' approach is very appealing; she refers to David Armstrong's theory of states of affairs and says that for Armstrong, there is always a deep puzzle that could only be solved if he embraced a symmetric structure. To him, the atomic states of affairs are ontological rock-bottom of the structure of reality, and the constituents of these states of affairs are effectively abstractions from them (e.g. our conceptions of atomic states of affairs or, perhaps, their universals). So, it does seem that states of affairs depend on their constituents, which explain their existence and nature, while these constituents themselves are abstracted from those atomic states of affairs and, therefore, depend on them for their existence.[72] Barnes believes that Armstrong did not have to face such a dilemma if he had embraced the

[65] Barnes (2018), 54.
[66] *Ibid*, 55.
[67] Audi (2012), 692.
[68] Fine (2012), 76.
[69] Baker (2002), 627.
[70] Bliss & Priest (2018), 14.
[71] Barnes (2018), 54.
[72] See Armstrong's *A World of States of Affairs* (1997), or for a shorter discussion see his 'A World of States of Affairs' (1993).

possibility of symmetric structural relations, in which atomic states of affairs could depend on their constituents while their constituents depended on them.[73]

As Barnes shows, accepting that structural relations in the world could be symmetric is theoretically useful. It is also possible that we actively seek asymmetry in relations of fundamentality just to support our assumptions about how the world is structured. There have been many attempts in the last decade or so to offer a coherentist account of the structure of the world instead of a hierarchical one. A coherentist account of the world takes entities to be interdependent (which entails some degree of symmetrical relations in most cases).[74] The problem is, however, that a symmetric structure of this kind is problematic in most cases. Theoretically, any view that considers the relations of fundamentality to be symmetrical sounds plausible, but in reality, they have serious shortcomings. The reason that philosophers of fundamentality take asymmetry for granted, in my opinion, is not that it is convenient; instead, it is because if relations of fundamentality were symmetric, then the structure of reality would have been viciously circular. Many philosophers of fundamentality find this 'vicious circularity' so obvious that they dismiss the need for elaboration on this issue. But the sheer number of arguments against the asymmetry of relations of fundamentality shows that this feature is far from a widely accepted feature of the structure of the world.

However, not any circularity is vicious. We call a circular structure vicious when something *x* can only exist or function as it does if something *y* exists while *y*'s existence of function is equally dependent on the existence of *x*. Ricki Bliss, however, argues in her 'Viciousness and Circles of Ground' (2014) that circles of MFT relations ("circles of grounding" in her paper) are not necessarily vicious. She offers a compelling example of the two poles of a magnet which are symmetrically dependent on one another: "The fact that the magnet's north pole exists depends upon the fact that the south pole exists, and vice versa."[75] Here we have a circular structure that is not in any way 'vicious' because the north and south poles of the magnet rely on one another for existence or function without any particular sense of priority holding between them. This is, indeed, compelling, but it could be easily explained away to save the day for the asymmetry condition of relations of fundamentality: The two poles of a magnet are not dependent on one another but instead are dependent [or grounded] on the magnetic field of the object. Karen Bennett shows the flaw of Bliss' counterexample with another example: the states of affairs of someone being a wife and the one of someone being a husband are not symmetrically dependent upon one another; instead, "*both* states of affairs depend upon various facts about social conventions, a piece of paper [the parties] signed, and so forth."[76] The majority of the cases of symmetric [or interdependent] structural relations could be explained away in precisely this manner.

The bottom line of defending the asymmetry condition of relations of fundamentality is that it is consistent with how we experience the world. We try to make sense of the world; to do so, we need 'useful' theoretical assumptions. The asymmetry of MFT relations is one such useful assumption. This is to say that if MFT relations hold, then asymmetry is necessary. There might be some circular structural relations, but even if there are such structural relations, they are not MFT relations. Something cannot be more fundamental than something that is more fundamental than itself. If *x* is more fundamental than *y*, *x* has properties that *y* needs in order to exist, to have a certain nature, or to obtain: this makes *x* metaphysically prior to *y*. If MFT relations were symmetrical, *y* would also be

[73] Barnes (2018), 57-8.
[74] Naomi Thompson argues for an inter-dependence of relations of fundamentality in her (2016).
[75] Bliss (2014), 248.
[76] Bennett (2017), 37.

metaphysically prior to *x*, but circular structures of this sort seem contradictory. We experience the world as structured with asymmetrical relations; the fact that it is also theoretically convenient is just a bonus!

1.2.1.3. Transitivity

Irreflexivity and asymmetry are two core features of relative fundamentality which seem to be essential to the hierarchical structure of reality. So, MFT relations in any chain of fundamentality must be asymmetric and irreflexive. Another feature that is often considered to be essential to relations of fundamentality is *transitivity*. However, unlike irreflexivity and asymmetry, the transitivity of MFT relations has proved to be a major point of disagreement among philosophers of fundamentality. Therefore there is a difference between this feature and the other two from the outset in that the transitivity of relations of fundamentality has not been left underexplained by philosophers of fundamentality.

So, let us first see what this feature is before commencing to how it has been questioned even from the viewpoint of orthodox theories of fundamentality. A relation is transitive just in case wherever it relates *x* to *y* and *y* to *z*, it also relates *x* to *z*. So, if the oak tree outside my house is taller than me and I am taller than my cat, then the oak tree outside my house is necessarily taller than my cat.

Transitivity: For all MFT relations *R*, and all *x*s, *y*s & *z*s, if *xRy* & *yRz* Then *xRz*

For instance, a person's existence (perhaps partially) depends on their vital organs. Those vital organs depend for their existence on the existence of their cells. It follows then that a person's existence, at least partially, depends on the existence of their body cells.

There are many references to the transitivity of relations of fundamentality in contemporary analytic literature. For example, transitivity is one of the three ground-theoretic assumptions in Kit Fine's 'Puzzle of Ground' (2010). Fabrice Correia also assumes transitivity in order to build a theory of grounding by calling it a 'structural principle.'[77] Denis Whitcomb says that transitivity is an obvious feature of 'more… than' relations,[78] and Gideon Rosen assumes transitivity as a core feature of the hierarchical structure of reality, although he cautions the reader by noting that relations of fundamentality are not *obviously* transitive.[79]

Rosen's worry is not, by any means, a new concern about the transitivity of relations of fundamentality. Especially concerning part-whole relations, transitivity has been widely questioned. A door handle, for instance, is part of a door, and a door is part of a house, and yet we do not consider a door handle as a part of a house.[80] Or, David Corfield's hand is a part of David Corfield,[81] while David Corfield himself is a part of the Department of Philosophy at the University of Kent. What we would hesitate to say, however, is that David Corfield's hand is a part of the Department of Philosophy at the University of Kent.[82] There are many such objections against the transitivity of

[77] Correia (2010), 11.
[78] Whitcomb (2011), §2. Whitcomb speaks only of 'better than' relations, but his arguments could easily be generalised to include any 'more… than' relation, such as relations of MFT.
[79] Rosen (2010), 116.
[80] Cruse (1979), 32.
[81] Though he, just like anybody else, might not even have hands. See Eric T. Olson's (1995).
[82] Winston et al. (1987), 431.

relations of fundamentality. However, there is a standard response to these objections: all such examples are based on an implicitly narrow conception of parthood. The door handle is, indeed, a *functional* part of the door but not a *functional* part of the house, but this is not to say that the door handle is not a part of the house at all. The door handle does, in fact, have all the features needed to be considered a part of the house (it contributes to the mass and shape of the house, it occupies regions of space within the regions occupied by the house, it would cease to exist if the house ceases to exist, etc.). The same goes for the hand of an academic member of a philosophy department and the department itself. So, in the above counterexamples, transitivity fails only because the conception of parthood is narrowed down by adding the condition of 'functionality'. Achille Varzi explains this neatly: we can say that object *x* is ϕ-part of an object *y*, where ϕ represents any narrowing condition such as functionality; now the fact that *y* is ϕ-part of *z* does not make *x* a ϕ-part of *z*, but it does make *x* a part of *z*.[83]

So far, we can still assume that relations of fundamentality are transitive, although, as Rosen says, not obviously so. But the arguments against the transitivity of relations of fundamentality are not limited to the ones directed to part-whole relations. The counterexamples against parthood were directed more at the nature of parthood rather than the nature of MFT relations. There are, however, objections against relations of fundamentality that target issues with these relations themselves rather than problems with their instances in local pockets of structure. Take a case Karen Bennett puts forward against the transitivity of MFT relations in set formation (a type of fundamentality relations). Sets are formed by their members. {a} is formed by *a*, and {{*a*}} is formed by {*a*}. If set formations were transitive, {{*a*}} must have also been formed by *a* since {*a*} is, but that is not the case. {{*a*}} does not have *a* as its member, so it could not have been formed by *a*.[84] However, this criticism could be dismissed just like the above examples. Bennett understands set formation in terms of building, and 'building' for her is a blanket term for all relations of fundamentality;[85] that is why her theory of building is ultimately a complex theory of 'more fundamental than' relations. Considering this, the above argument could be phrased as:

$$a\text{MFT}\{a\} \wedge \{a\}\text{MFT}\{\{a\}\} \wedge \neg(a\text{MFT}\{\{a\}\})$$

However, this does not have to be so: *a* might not directly form {{*a*}}, but in forming {*a*}, *a* has contributed to the ultimate formation of {{*a*}}. The set {{*a*}} is formed of {*a*}, and nothing else *directly* forms it, but without *a,* {*a*} could not be formed and therefore, *a* is indirectly involved in the formation of {{*a*}}. So, Bennett's counterexample fails in the same manner as the counterexamples from mereology: the counterexamples of mereology were narrowing the concept of parthood, and Bennett also limits the notion of building (in the example of set formation) to what we can call *direct building*.

Jonathan Schaffer too offers a few counterexamples in his paper 'Grounding, Transitivity, and Contrastivity' (2012) which seem to be much more troublesome for the transitivity of MFT relations than the ones mentioned so far. Let us consider one of his counterexamples here:[86] imagine we have a ball that has a small dent on it; let us call the determinate shape of this ball 'shape *S*.' This ball also falls under a certain determinable shape which we are to call 'somewhat spherical', which covers a

[83] Varzi (2006), 2.
[84] Bennett (2017), 46.
[85] 'Building' also includes relations that are not traditionally considered 'relations of fundamentality' – an example would be causal relations. See §5.3 for a detailed discussion of Bennett's theory of building.
[86] See (Schaffer, 2012: 126-7) for this particular counterexample.

range of determinate shapes centred around 'perfectly spherical shape' which permits some minor deformations. Now, the fact that the ball has the shape *S* holds in virtue of the fact that it has a dent. And the fact that the ball is somewhat spherical also holds in virtue of the fact that the ball has the shape *S*. If grounding is transitive, then we must conclude that the fact that the ball is more or less spherical holds in virtue of the fact that the ball has a dent.[87] But this does not seem right: the ball would be somewhat spherical with or without dent. In other words, the ball "is more-or-less spherical *despite* the minor dent, not *because* of it."[88]

Schaffer's counterexample appears to pose a more serious threat to the transitivity of MFT relations. However, the problem with Schaffer's objection is that he takes 'having a dent' to *fully ground* the shape *S* of the ball. The shape *S* is partially grounded on the dent and is partially grounded on some other grounds that make the shape *S* what it is. To understand this better, let us replace the ball in Schaffer's example with a red ball with a green dot on it – we call the colour of this ball *C*. The fact that the ball has the colour *C* is partially grounded on the fact that it has a green dot and is also partially (indeed, for the most part) grounded on the fact that the ball is red.[89] We can then claim that the ball is 'largely red' in virtue of the fact that the ball has the colour *C.* When we say, by way of transitivity, that the ball is 'largely red' in virtue of the fact that it has a green dot on its majority red surface, we are only saying so in a partial manner. The ball is, indeed, largely red, partially in virtue of the fact that there is a green dot on it and partially in virtue of the fact that it is red elsewhere; that is precisely why the ball is 'largely' red, not entirely. Considering this, the ball is 'largely red' precisely *because of* its different partial grounds, not *despite* any of them.[90]

So, most objections against the transitivity of relations of fundamentality fail because they are only directed at conditional kinds of relations. Not all parts are 'functional parts' of their wholes, and not all building is direct building, and not all facts fully ground the other facts in virtue of which they hold. It appears that all the objections against transitivity suffer from this mistake, and – although I tend to avoid relying on intuition – after showing such mistakes, it is fair to say the intuition that relations of fundamentality are transitive is a fair one. Therefore, the transitivity of MFT relations should also be considered an essential feature of the hierarchical structure of reality, even if it is not as obvious as the irreflexivity and asymmetry of these relations.

1.2.2. Absolute Fundamentality

With the concept of relative fundamentality roughly explained, we now have a somewhat more precise picture of the structure of the world as understood in terms of fundamentality. However, this 'relational' aspect of the structure of the world implies only one structural principle, namely the 'hierarchy principle.' I said earlier that another widely discussed structural principle is the *foundation principle*. The foundation principle entails that there could be some entities (or maybe a set of entities) that are *ultimately fundamental*. This is to say that there are some entities (or a set of

[87] Another way to write this argument would be that if grounding is transitive, then:

- The fact that the ball has a dent grounds the fact that it has the shape *S*.
- The fact that the ball has the shape *S* grounds the fact that it is somewhat spherical.
- Hence, the fact that the ball has a dent grounds the fact that it is somewhat spherical.

[88] Schaffer (2012), 127.

[89] Krämer & Roski (2017), 1197-8

[90] See also Litland (2013), 21-5.

entities)[91] that are fundamental to everything else in a chain of fundamentality, in the sense that all the other entities in that chain derive (either directly or indirectly) from these entities. We shall call such fundamental entities *absolute fundamental*s. Taking *C* to signify a chain of fundamentality:

Absolute fundamentality *x* is absolutely fundamental in *C* iff *x* MFT every other entity in *C*

In this basic definition, absolute fundamentality is defined in terms of MFT relations which makes this definition derivative of relative fundamentality. Some philosophers find it easier to explain absolute fundamentality by appealing to theological metaphors: absolute fundamental entities are all God needs to create everything else.[92] I will use this metaphor and examine its consequence in more detail shortly, but it should suffice, for now, to note that to bring the world about, God only needs to create the absolute fundamental entities; everything else derives from these entities without any need for further acts of creation.[93]

Absolute fundamentality, like relative fundamentality, has its own features, which I will discuss shortly, but before that, it is crucial to see why we should complicate the matter by introducing the foundation principle at all. To this end, I intend to briefly speak of an underlying notion that necessitates discussing absolute fundamentality, namely the notion of *well-foundedness*.

1.2.2.1. Well-foundedness

A chain of fundamentality is said to be well-founded just in case it terminates at a particular point. A chain of fundamentality terminates at a point where there are some entities (or a set of entities) which are more fundamental than every other entity in that chain.[94] In cases of ontological dependence, a chain is well-founded if and only if there are some entities upon which all other entities of that chain (directly or indirectly) depend, while the former entities do not themselves depend on anything. In metaphysical grounding, a chain is said to be well-founded if and only if there are some facts in virtue of which all other facts (directly or indirectly) obtain, yet nothing grounds the former facts. 'The point' in which a chain of fundamentality terminates is often metaphorically called 'bottom level,' evoking an image of a building, each level of which depends on a level below. The foundation of the building is precisely what makes the building solid, and if one considers it as a level, there is no level below that. The problem is, however, that these words have a particular descending sense to them, implying that the chain of fundamentality is always descending. That is precisely the case for many philosophers: simpler entities form more complex ones.[95] For example, Karen Bennett's theory of the structure of the world is entirely formed around the notion of building,[96] and for David Lewis, the degrees of naturalness of properties are determined in terms of

[91] The difference between 'somethings' being fundamental or 'a set of things' being fundamental is important. In the former case one or several things are fundamental in their own right, in the latter case it is the entities taken together that are fundamental.
[92] See, for instance, Wilson (2014: 560).
[93] This, of course, is nothing more than a metaphor. As I mentioned earlier, relying on theological examples is at best controversial. Here I am not relying on any theological notion. This is only to say that the world needs only a small number of entities in order to be structured in this maximally complex manner. Even this thought is controversial as we shall soon find out.
[94] Dixon (2016), 443; Lowe (1998: 158).
[95] See, for instance, Ross Cameron (2008) where he argues for a well-founded material chain of fundamentality and rejects the possibility of gunk (an object every part of which has some further proper part).
[96] Bennett (2017), Chapter 2.

the length of their definitions from perfectly natural properties.[97] There are many examples of such views, but not all theories take chains of fundamentality to terminate at the 'bottom level.' Jonathan Schaffer champions the theory that he calls 'priority monism', which has the maximal entity (i.e. the world) as the absolute fundamental.[98] There are also views which take the entities in the middle of the chain as the absolute fundamental.[99] All this is to say that, despite all the building metaphors, well-foundedness does not entail the direction of relations of fundamentality: it only entails that chains of fundamentality must terminate at some level.

But why should we take the chains of fundamentality to be well-founded at all? The foundationalist intuition is strong, but relying on intuition does not suffice. There have been numerous attempts, starting from Ancient philosophers such as Aristotle, to explain why the well-foundedness of chains of fundamentality is an essential feature of the structure of the world. Aristotle heavily relies on this notion when discussing the sequence of what he calls causation.[100] For him, there can be no movement without a force, and in a chain of causation, things move one another by passing on the force that they were moved by in one way or another (very much like dominoes). Now, Aristotle believes that this force has to come from a certain point, and the point from which the 'force' is initiated cannot itself be part of the sequence of 'being moved.' It has to be the initiator without itself being affected by it. This is what Aristotle calls 'the unmoved mover.'[101] Since Aristotle, the notion of well-foundedness has been accepted and used by many philosophers, most of whom had a (more or less) similar approach in justifying it. This Aristotelian approach could still be found in contemporary analytic philosophy. Jonathan Schaffer, for instance, says "if one thing exists only *in virtue of* another, then there must be something from which the reality of the derivative entities ultimately derives"[102] because if not, "being would be infinitely deferred, never achieved."[103] Kit Fine, on the other hand, fully assumes the intuitiveness of well-foundedness when he writes: "Given a truth that stands in need of explanation, one naturally supposes that it should have a 'completely satisfactory' explanation, one that does not involve cycles and terminates in truths that do not stand in need of explanation."[104] Ross Cameron similarly believes well-foundedness to be intuitive when he writes:

> For if there is an infinitely descending chain of ontological dependence, then while everything that needs a metaphysical explanation (a grounding for its existence) has one, there is no explanation for everything that needs explaining. That is, it is true for every dependent *x* that the existence of *x* is explained by the existence of some prior object (or set of prior objects), but there is no collection of objects that explains the existence of every dependent *x*.[105]

[97] This is a simplified version of what Lewis says (1986: 61). I will survey Lewis' view on degrees of naturalness in detail in §5.3.
[98] Schaffer (2010)
[99] Bernstein (2021)
[100] Aristotle's discussion of causality is not entirely about causation. In fact, at least one of the most important theories and consequences of this discussion, the one of 'formal' causation, has more to do with fundamentality and metaphysical explanation than causation.
[101] Aristotle (1984), 446 [*Phys.*VIII.10: 267a21-267b8].
[102] Schaffer (2010), 37.
[103] *Ibid*, 62.
[104] Fine (2010), 105.
[105] Cameron (2008), 12.

Nevertheless, he ultimately criticises all the existing arguments in favour of well-founded facts as unconvincing.[106]

The opposite view of foundationalism is infinitism. Just like Ross Cameron, infinitists find the existing arguments in favour of well-foundedness utterly unconvincing, but since they do not share Cameron's foundationalist intuition, they take the structure of reality to be infinitely regressing. Now, in a more common conception of the hierarchical structure of the world, the more fundamental is (at least metaphorically) *smaller* than, the less fundamental. The parts are smaller than the wholes: atoms are smaller than molecules, for instance. In a simple mereological model, we might say a desk is less fundamental than its parts, such as its legs and top. These parts are themselves less fundamental than the pieces of wood they are cut out of, and the pieces of wood are less fundamental than their cells which in turn are less fundamental than their atoms and so forth and so on. We tend to think of this mereological descent to terminate at the point of elementary particles and, thus, to speak of the mereological chains as well-founded. However, not only is it conceivable, but it also is argued by some philosophers and scientists alike[107] that such material chains can go on further without terminating. The ever-descending mereological chain presents the model of the structure known as *gunk*. A world is gunky just in case every part of that world has a proper part.[108] Gunk is, as we saw, an infinitely descending structure. This leaves the possibility of remaining a foundationalist open if one accepts views such as Schaffer's priority monism which takes the foundational level of the world not at the bottom but at the top, taking the maximal entity (i.e. the world in its entirety) as the absolute fundamental. In this way, the infinite descent does not pose a problem because the structure still picks up at a certain point, or, in Schaffer's words, the being in the chain is achieved from the maximal entity, although it is to go on infinitely on the other end.[109]

But the infinitist understanding of the structure of the world is not limited to the views that find the fundamentality to be on the 'small' side of the spectrum. If it is conceivable for the foundation to be at the maximal as well as the minimal side of chains of fundamentality, the infinitist view could see either side of the chain to be without termini. The infinitist principle, too, could apply to the structure of the world regardless of the direction of the chain of fundamentality. When the infinite descent of a chain of fundamentality gives us a gunky world, the infinite ascent gives us an unfortunately named *junky world*. Junk is the converse of gunk: a world is junky just in case everything in that world is a proper part of something.[110] Now, if the world is both infinitely ascending and descending, a world that Jonathan Tallant calls *hunky*,[111] then the game appears to be over for foundationalists. I, however, do not think that it is. Foundationalists have yet another theory at their disposal, which in my opinion, is the only theory that could prove the structure of the world to be well-founded. That is a Finean theory that the absolute fundamental is not an entity (or some entities or a set of entities) at one end of a structure, at which point the chain of fundamentality

[106] *Ibid* 8-12.

[107] For the metaphysical possibility of gunk see Simons (1987: 41), Theodore Sider (1993), and Jonathan Schaffer (2003). Regarding scientific support for gunk, Brian Greene claims that every time our understanding of the world deepens we find yet another "microconstituent constituting a finer level of matter" and conclude the elementary particles might themselves be composed of such microconstituents (Greene, 1999: 141-2). Howard Georgi also speaks of a gunky model when he writes "One can imagine… that the tower of [effective quantum field] theories goes down to arbitrarily short distances in a kind of infinite regress" (Georgi, 1989:456).

[108] Lewis (1991), 20.

[109] Schaffer (2010), §2.4

[110] *Ibid*, 64.

[111] Tallant (2013), 437.

terminates. It, instead, is the intrinsic structure of the chain.[112] This could also be Schaffer's view if we do not take 'the world' as simply something built by everything there is but as the structure according to which everything hangs together.

The foundationalist intuition proves to be strong, but the arguments against its necessity for the structure also prove to be convincing. Even if absolute fundamentality was entirely reliant on the notion of well-foundedness, we needed to account for absolute fundamentality to be able to reject it, but as we shall soon find out, to have a theory of absolute fundamentality, we do not need to be committed to well-foundedness of the structure of the world. So, let us see what the features of absolute fundamentality are.

1.2.2.2. Independence

As I said at the beginning of this section, something is absolutely fundamental if it is more fundamental than everything else. The first candidate feature for absolute fundamentality is *independence*.

> **Independence** *x* is independent in a chain of fundamentality *C* iff there is no *y* in *C* such that *y*MFT*x*

Independence appears to be the most widely discussed feature of absolute fundamentality. This is partly because of the close relation between the intuitive understanding of well-foundedness and the notion of independence: for a chain of MFT relations to be well-founded, it must have an independent entity as its terminus. In terms of metaphysical grounding, *x* is said to be independent just in case it does not obtain in virtue of anything else (or, more simply, *x* is independent iff nothing grounds *x*). In Bennett's building terminology, "*x* is independent if and only if *x* is not built by anything."[113] The metaphor of the 'rock-bottom' feature of reality, so widely used by philosophers of fundamentality, also implies independence. Jonathan Schaffer defines fundamentality in terms of independence, saying if nothing grounds *x*, then *x* is fundamental.[114] Louis deRosset also says: "Fundamental facts just are those facts which have no further explanation."[115]

If independence is to entail absolute fundamentality, there cannot be anything more fundamental than those entities that are considered absolutely fundamental. However, there are some issues which could point to the unsuitability of 'independence' as an essential feature of absolute fundamentality. When understood generally, independence is about something(s) that has 'nothing' more fundamental than itself, something(s) that does not depend on 'anything.' This might initially sound like a principle that entails a 'great chain of fundamentality,' but it should be understood as a general or universal expression of the principle, which has many instances in local pockets of structure. It is not that there exists an entity which does not depend on anything else, but that in any well-founded chain of fundamentality, there are entities which do not depend on anything. So, the independence of fundamental entities is an indexed notion: mereological atoms are independent entities in the chain of composition, but they are not in any sense independent in grounding chains where brute facts are rock-bottom entities. Even if one is committed to a unified singular structure,

[112] Fine (2001), 26.
[113] Bennett (2017), 105.
[114] Schaffer (2009), 373.
[115] deRosset (2010), 81.

independence is still primarily indexed because, for something to be independent in general, it has to be independent in all local structures.[116]

Now, it is relatively uncontroversial to say that something could be independent in one local pocket of structure but dependent in another. For Jonathan Schaffer, for instance, the world is ungrounded but composed. This assumption that entities could be independent in one local pocket of structure but not in another is in itself a good argument against the existence of the singularly unified structure of the world (unfortunately, that lies beyond the scope of the present work).[117] However, the problem is that if something could be independent in one chain but not in another, then that thing cannot be treated as 'absolutely fundamental.' At the beginning of this section, I said that for something to be absolutely fundamental, it has to be more fundamental than everything else. If something is the most fundamental entity in one chain but not in another, it is still not *absolutely* fundamental. As a result, if independence is primarily indexed, it cannot be an essential feature of absolute fundamentality.[118]

One way to preserve the essentiality of independence as a feature of absolute fundamentality is to distance our conception of general independence from the one implied by the belief in 'the great chain of fundamentality'. For something to be independent in general, it does not have to sit at the bottom-level of a structure such that every other local structure somehow terminates at that. If we scrap the image in which local structures merge into one another to form a branching structure and accept that local structures can exist more or less independent of one another, we can move on to develop a more useful notion of 'generality' for 'independence' which is motivated by 'classification'. Where there are many well-founded local pockets of structure, each with its own independent entities, we could conceivably speak of independence in general terms when treating 'independent entity' as a class. So, something *a* is generally an independent entity in virtue of being independent in at least one chain of fundamentality. To be an independent entity is to be a member of the set of all independent entities; then, for something to be absolutely fundamental, being independent is essential.

1.2.2.3. Completeness

The second feature of absolute fundamentality is 'completeness'. Completeness implies the reverse of independence: where an independent entity is not accounted for by anything else, a complete entity is one that accounts for everything else in the chain of fundamentality.[119]

Completeness *x* is complete in *C* iff *x*MFT*(all else).*

As mentioned earlier, independence appears to be the central feature in explaining fundamentality and, indeed, many philosophers find that sufficient for the purpose. I mentioned some difficulties with that feature but claimed that ultimately independence is essential to absolute fundamentality. Completeness has its host of defenders, many of whom do not think there is necessarily a need for the notion of independence in explaining absolute fundamentality when the job could be done by

[116] Bennett (2017), 106.
[117] See Bennett (2017: 162-7) for such an attempt.
[118] Bennett (2017), 107.
[119] I use the phrase 'accounts for' here to encompass all instances of relations of fundamentality (not just 'explanatory relations' to which accounting is more closely related). A more accurate definition would have listed all these instances disjunctively, but such a definition is not attractive enough when one wants to bring the point home

appealing to completeness. Ted Sider writes "it would be a nonstarter to say that the fundamental consists solely of one electron: thus conceived the fundamental could not account for the vast complexity of the world we experience."[120] Similarly, David Lewis says that "there are only just enough of [sparse properties (his equivalent for absolute fundamentals)] to characterise things completely and without redundancy."[121] Carrie Jenkins calls something (an absolute) fundamental if "all *the rest* can be explained" by appealing to it.[122] Jonathan Schaffer, who finds both completeness and independence to be necessary features of absolute fundamentality, says that absolute fundamentals are complete – in that they provide *a blueprint for reality*.[123] This idea of 'the blueprint for reality' has its root in the theological metaphor mentioned earlier: "[absolute] fundamental entities are all and only those entities which God needs to create in order to make the world how it is."[124] So, if absolute fundamental entities are complete, meaning if they account for everything else in the world, then they are those according to which the book of the world is written.[125]

Completeness, however, should be understood as a more complex notion than this crude version. It is incompatible with how we experience our world to have some entities (or a set of entities) that account for everything else. We should first resolve this by reminding ourselves of the local pockets of structure and that in the messy world (an understanding which I favour), each local pocket of structure has its own complete entities (or a complete set of entities). Now, if the world did have a neat structure such that every local pocket of structure was rooted in another structure, all the way down to one some entities as 'absolute fundamentals,' then we would have had only some complete entities accounting for everything in the world. In the model I favour, however, entities are complete primarily relative to their specific local pocket of structure. However, as with independence, there is a sense in which all of these complete entities could form a general sense of completeness when forming the set of all complete entities of the world. The question is whether such a set is itself complete or not.

The set of all complete entities could be complete for the world as a whole with two additions, both proposed by Karen Bennett in her (2017): first, the set of all complete entities must be itself *minimally complete*, meaning if its members are the complete entities of the world (not in relation to their respective local chain of fundamentality), then they must be complete only together. This is to say that no member or subset of the complete set is on its own complete.[126] There is a good reason for this: Let us say in a world *w*, the set {*a*, *b*} is complete; now let us assume that *a*, an element of {*a*, *b*}, is also complete by itself. In such a case, {*a*, *b*} is only trivially (if at all) complete because one of its elements could do the job just as well. The other condition Bennett adds to the general sense of completeness is *uniqueness*: a set of all complete entities is uniquely complete when there is no other set in the world that is generally complete. This, too, should be obvious because if there is another complete set in the world, none of these sets is complete in the general sense: in the world in which {*a*, *b*} is a complete set, there cannot be another complete set {*c*, *d*}. After all, the existence of two complete sets is in contrast with the definition of the general sense of completeness: if {*a, b*}

[120] Sider (2011), 105.
[121] Lewis (1986), 60.
[122] Jenkins (2013), 212. (Jenkins' own Italisation)
[123] Schaffer (2009), 377.
[124] Barnes (2012), 876.
[125] Sider's book *Writing the Book of the World* (2011) is among the most significant works on the subject of the 'Structure of Reality' and is largely formed around the idea of 'completeness' of fundamental entities in a more or less Lewisian sense.
[126] Bennett (2017), 109.

is complete, then it must account for {*c, d*} too, because {*c, d*} is also among 'everything else in the world,' in which case {*c, d*} is not complete.[127]

So, again the local pockets of structure are the basis for understanding the absolute fundamentality while we still can have a general sense of absolute fundamentality at our disposal.

1.2.2.4. Independence and Completeness

When I described the features of relative fundamentality, I described them as features that accompanied one another: A chain of fundamentality is at the same time irreflexive, asymmetric, and (often) transitive. These features are distinct, but they have direct relations, such as asymmetry's role in accounting for irreflexivity. However, the same could not be said so easily about the two features mentioned for absolute fundamentality. The features of absolute fundamentality are distinct, and, at least at the outset, they do not seem to be in any direct relation to one another. It could even be said that, in a sense, independence and completeness are two contrasting features of fundamentality. Independence is the feature of absolute fundamentality which implies a downward direction of entities in a chain of fundamentality (i.e. *a* depends on *b,* which in turn depends on *c*, all the way down to something that does not push downwards any further). In contrast, completeness implies an upward direction of entities in a chain of fundamentality (i.e. *z* accounts for *y* which in turn accounts for *x*, all the way up to a maximal entity). Of course, the world is not so neatly structured, but the basic idea remains the same, and the contrast between the two features is at the bottom line, more or less as described. Considering the stark contrast between these two features, it should not be surprising that many philosophers tend to prefer one over another in describing the structure of the world. Most such philosophers do not deny that both features are at play in how the world is structured, but they do prioritise one over another as '*the* structural feature.' Ted Sider only speaks of completeness accompanied by a side-notion of Purity,[128] which is an interpretation of Lewisian naturalness. Elizabeth Barnes defends a version of completeness, denying that independence is a matter of fundamentality at all.[129] Louis deRosset, on the opposing side of the debate, defines fundamentality only in terms of independence: "Call a fact fundamental if it is not explained by any other fact."[130] Kit Fine, too, prefers to explain absolute fundamentality in terms of independence alone, saying, "a proposition is basic if it is not grounded in other propositions."[131] I, however, think that if the structure of the world is well-founded (which is a big if), these two seemingly contrasting features must be equally ingrained in the structure of the world.

The easy way to look at the matter is from an Aristotelian viewpoint. In Book XII of his *Metaphysics,* Aristotle says that everything that moves needs a force to move it (call this a mover). Simply put, everything that moves is moved by something else, which is moved by a further mover. In a sense, 'the force of movement' is passed on from the mover to what is moved in a domino-like sequence. For Aristotle, an infinity of this sequence is not even a possibility, so he needs to explain how the entire sequence begins, and that is why the *prime mover* is introduced: the prime mover is

[127] I used the example of set-like worlds here, but this would work just as well with plurality or entities where individuals replace the members and with singular entities where their parts replace the members of sets in the examples offered here.
[128] Sider (2011), 155-6.
[129] Barnes (2012), 882.
[130] deRosset (2010), 75.
[131] Fine (2001), 17.

something that initiates the sequence of passing of the movement but since it is the starting point it is only the mover without itself being move. It is an *unmoved mover*.[132] As we have already seen, a popular account of relations of fundamentality holds that these are non-causal explanatory relations.[133] This is to say that the more fundamental entity explains the less fundamental entity such that, the less fundamental entity 'exists because of' or 'obtains in virtue of' the more fundamental entity. Now, considering their explanatory nature, if relations of fundamentality form chains such as the ones evoked many times in this chapter, and if these chains are in any way well-founded, then we can call the absolute fundamental entity "an unexplained explainer."[134] Absolute fundamental entities are independent in that nothing is more fundamental than them, so they are unexplained. They are also complete, in that they account for everything else, so they are explainers.

This peripatetic view is illuminating and helpful in realising the importance of both features in accounting for absolute fundamentality, yet an even more intimate relation between independence and completeness of absolute fundamentals is conceivable. I argued above that absolute fundamentality is not only evoked in a neat singular structure in which all chains of fundamentality ultimately terminate at the same terminus. We could think of absolute fundamentality as a set which has all termini of different well-founded local structures. As I have argued, this set is complete because together, all its members account for everything there is. But the set itself is not independent; instead, the elements of the set are each independent. So, in this model of absolute fundamentality, the complete set is a set of all independent entities. In other words, to account for absolute fundamentality, there must be a complete set which has all independent entities as its members. This is because independent entities do not depend on or hold in virtue of anything else, and so, if they are not in a set, then that set cannot account for them; therefore, the set would not be complete. So, if there is a complete set, it must have all the independent entities of the world as its elements.[135]

Even though this latter view shows a close relation between independence and completeness, it practically takes us back to where we started with the relations between these two notions, meaning it prioritises one over another. If absolute fundamentality is understood in terms of complete sets of independent entities, then independence would be the only feature of absolute fundamentality. Sets are considered to be *formed by* their elements, which makes the elements of a set more fundamental than the set itself. Here, in our case, the independent entities are elements of the complete set and therefore, independence is metaphysically prior to completeness (i.e. independence is more fundamental than completeness). If this is the case, independence is the only feature of absolute fundamentality. But on the other hand, none of the independent entities is a truly absolute fundamental because each can only account for entities of its respective local pocket of structure. Mereological atoms, for instance, are useless in accounting for chains of grounding relations. So, the set-membership makes independence the prior feature in accounting for absolute fundamentality, but without independent entities being taken together, we cannot have a true absolute fundamentality either.

[132] Aristotle (1984b), 1692-5 (*Met.*XII: $1071^{b}3 – 1073^{a}14$)

[133] Though Bennett believes causal relations are also relations of fundamentality, or in her words 'building relations.' See Chapter 4 of her (2017).

[134] Bennett (2017), 110.

[135] It is worth noting that in all likelihood, the complete set is not only the set of all independent entities but the set of all and only independent entities. However, elaborating on this is beyond the scope of this work.

Does this mean we should dismiss the notion of absolute fundamentality and only focus on the well-foundedness of local pockets of structure then? I do not think so. The problem with the view presented above is not inherent to the relation between independence and completeness but is a problem with the set-theoretical explanation of how the world is structured. When we speak of 'some entities,' we do not have to commit to the claim that each individual is more fundamental than all taken together. The same idea goes with singular entities: no theoretical constraint binds us to the belief that proper parts of an entity are more fundamental than the entity itself. It is only the constraint of set theory that creates this problem. A group of independent entities could together be complete without rendering their independence more fundamental than their collective completeness. If we move away from set-theoretic language, we can salvage the co-relation of independence and completeness in accounting for absolute fundamentality by taking all independent entities of different pockets of structure to together account for everything else in the world.

1.2.2.5. No need for well-foundedness

As I have already noted, we can speak of absolute fundamentality in terms of sets of groups of independent entities, which together completely account for all that there is. This does not imply well-foundedness, but there are foundationalist theorists to whom absolute fundamentality could only hold if the world is structurally well-founded.

I mentioned in section §1.2.2.1 that there are conceivable models for reality in which either side of the hierarchy is open for an infinite regress: in a gunky world, the structure is descending infinitely such that every part of the world has further proper parts while in a junky world, the structure of reality is ascending infinitely such that everything in that world is a proper part of something. In both of these cases, one side of the structure is closed: in a gunky world, the maximal object, which is not itself a proper part of something, is somehow a terminus because everything else is either directly or indirectly its part while in a junky world, the minimal object that has no further part is the terminus of the structure of the world.[136] But then there is this other structural model, which we called *hunky*: a world that is open on both sides and hence has no terminal level.[137] In a hunky world, the structure of the world never terminates. If the world could, indeed, be structured in this hunky way, then foundationalism would be false. Foundationalists often say that we have a strong intuition in support of well-foundedness, but if intuition is left aside, could one still argue for a well-founded structure against the possibility of an infinitely open structure?

Foundationalists' problem with infinite regress is elegantly presented in Jonathan Schaffer's phrase that if the chains of fundamentality did not terminate, "being would be infinitely deferred, never achieved."[138] Let us see what Schaffer means in the go-to example for infinitely descending structures: *Bradley's regress*. A property P is attributed to an entity *a* (*a* is P). Let us say, reductively for the sake of convenience, that this attribution is instantiated through a relation *R* – we shall symbolise this as *Ra*P. This is to say that *a* relates to P by means of *R*. But how does *R* relate *a* to P? It

[136] The junky world is more familiar to us, perhaps because our conception of the structure of the world is shaped by classic models of mereology.
[137] Of course, there is a model that is closed at both ends as well which is less interesting for the purpose of this section.
[138] Schaffer (2010),62.

seems that there we need a further relation to relate *R* and *a* and P: let us render this *RRa*P. We are clearly on a regressive path now because this new *R* needs to be related to *R* and *a* and P as well, and therefore, there must be another *R*:[139]

$$R\mathit{a}P \rightarrow R_1(R\mathit{a}P) \rightarrow R_2(R_1(R\mathit{a}P)) \rightarrow R_3(R_2(R_1(R\mathit{a}P))) \rightarrow \ldots R_n(\ldots(R_3\,(R_2\,(R_1\,(R\mathit{a}P))))$$

There is a problem with this (or at least F. H. Bradley thought there was): in a regress such as this, nothing is actually ever related because there is no 'ultimate relation' that does not need to be itself related to its terms. We cannot, in other words, account for how the unity of the state of affairs is achieved.[140] Foundationalists do not agree with Bradley's conclusion that nothing could actually relate to anything else, and they defend a theory that stands at odds with Bradley's regress since they argue against the possibility of regress. However, as contrasting as these views might be, they both stand on the same principle: regress in the chain of *x*s makes *x* unachievable: for the foundationalist if there is no ultimately fundamental level, the other layers in the hierarchy do not achieve their status.[141]

But what is this 'status?' In the phrase quoted from Schaffer, 'being' is what would not be achieved if there is no ground. But what does it mean for 'being' not to be achieved and be infinitely deferred? The most straightforward reading of this would be to view the absolute fundamental level as a source of being that passes existence to the next level all the way down or up (just like the Aristotelian 'causal chain' mentioned above). The problem with this straightforward reading is that none of those other layers would exist without the fundamental level. This, however, is not implied in what Schaffer says, for he seems to assume the existence of all these other entities and argues from their existence that there must be a point from which all these entities achieve their being. So, It appears that Schaffer is using 'being' to speak of something more like 'reality.' If the fundamental level is that from which 'being is achieved', then Schaffer could be implying that the absolute fundamental is that which is fully real, and everything else's reality is derived from this fully real entity. In this view, the degree of reality of each thing is somehow determined according to their relation to this source of reality which Schaffer calls the ultimate ground. As we shall see in Chapters 4 and 5, I have no problems with this interpretation, and, in fact, my meta-ontological view is very much akin to such a view. However, a claim such as this does not offer any argument for well-foundedness. If the only fully real entities are absolute fundamentals, and if there is a world in which nothing is an absolute fundamental, then nothing is fully real. A world in which reality or existence is graded could be well-founded or infinitely regressive; either way, the structure seems perfectly functional.[142]

I believe that the historical insistence on the well-foundedness of the structure of reality is deeply problematic. Foundationalists claim that the infinite regress of relations of fundamentality is always vicious[143] because it leaves us without an explanation for something that we think we need an

[139] Bradley (1897), 17-8

[140] Orilia (2009), §6.

[141] Ross Cameron (2008) and Francesco Orilia (2009) do argue that this exact problem is the problem of regress in the theories of fundamentality.

[142] For further discussion on Schaffer's claim see (Bennett, 2017: 5.5) and (Bliss, 2013).

[143] 'viciousness' of regress is a baffling notion. There is no general agreement over what entails viciousness: some philosophers, such as Vlastos (1954) and Clark (1988), take an infinite regress to be vicious just in case it bears contradiction, whereas others, like Nolan (2001), see the viciousness as the product of failure of a regress that aimed at reduction. In the recent literature on fundamentality, many foundationalists take the infinite

explanation for. Schaffer believes that in an infinitely regressing structure, 'being is never achieved' because he evidently assumes that being has to come from only one level of entities (if not from only one entity). I do not see any reason to commit to this. Furthermore, I believe there is a serious issue in accepting the existence of absolute fundamentalia: as we said above, relations of fundamentality are irreflexive, and precisely due to this, we said that *if* there is anything absolutely fundamental, that thing must be independent [rather than self-dependent]. Independence implies 'popping into being' rather than relying on another thing. Moreover, the principle of sufficient reason has always been considered the predecessor of the theories of grounding, but even according to this principle, 'absolute fundamentality' is deeply problematic. To believe that there is an entity (or some entities or a set of entities) that *just is*, is rather theological (a quality which often comes with controversy).

However, since we already evoked theology, let us at least benefit from its rich precedence: as it is with a mysterious being like God, I think we can safely treat absolute fundamentality with agnosticism. The debate between foundationalism and infinitism is effectively the same as the debate between those who say nothing could possibly come from nothing (*Ex nihilo nihil fit*) and those who maintain the orthodox 'something from nothing' theology (*creatio ex nihilo*). These are debates which cannot be settled because ideology plays a significant role in them. The reality, I believe, is structured with features of relative fundamentality. As Karen Bennett says, "there is no reason to think that if nothing is absolutely fundamental, nothing stands in relative fundamentality either – that if nothing is absolutely fundamental, nothing is more fundamental than anything else."[144] As I mentioned before, our understanding of absolute fundamentality is a product of our understanding of relative fundamentality. It is not farfetched to say that, in a way, we construct the idea of absolute fundamentality from our everyday encounters with relative fundamentality. This construction might or might not be consistent with reality. The only thing we can claim to know is that reality appears to be structured hierarchically and exists and functions the same with or without an ultimate level. It is, of course, evident to us that *some* local pockets of structure are, in fact, well-founded, but that in itself does not entail the well-foundedness of the entire structure.

1.3. What vs. How

In the course of this chapter, I offered a very brief survey of the literature on fundamentality. We started with the question about the 'structure of the world' and what that entails. I spoke about a few ways philosophers approached the subject of the structure of the world and then focused on the most popular of these views, which is the theory (or rather theories) of fundamentality. My reason for focusing on this particular view was not, however, motivated by the popularity of this view among the philosophers of our time. I find theories of fundamentality the most plausible of all theories that account for the world's structure. Fundamentality is in no way a new view, and it has always been at the heart of any cosmological or ontological account of the world, so there must be something about this view that not only attracts a good many philosophers in our time but has also been a dominant view about the world for the majority of the history of metaphysics. Moreover, the hierarchical structure of the world that theories of fundamentality represent accords with the layperson's intuition about how the world is. Folk views might not be of high significance for philosophers in academia, but they still hold certain values when it comes to discussing how the

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regress of the structure of reality as inherently vicious; some of them argue that all vicious regresses are infinite regresses of relations of fundamentality (Orilia, 2009; for a discussion see Bliss, 2013: 400-1).

[144] Bennett (2017), 122.

world is structured. It is quite interesting when one experiences how easily a person with no education in philosophy can grasp the essence of fundamentality, especially compared to how utterly inaccessible most other technical subjects in contemporary metaphysics prove to be for them. I think this in itself is an important factor in preferring theories of fundamentality to other views about structure.

Furthermore, it appears that many other views about structure could be incorporated into theories of fundamentality. An excellent example of this is Lewisian naturalness which has influenced many central theories of fundamentality. Of course, one might argue that Lewis' theory is not incorporated into theories of fundamentality but has practically given rise to such theories; this, however, is a point of contention and is beyond the scope of my discussion here. Whether other theories of the structure are secondarily incorporated into theories of fundamentality or else are motivated by the formation of these theories, the result remains the same: fundamentality benefits from many other theories of the structure, whereas the opposite is not necessarily true.

Although theories of fundamentality seem to be better equipped to account for the structure of the world, some questions about them remain largely unaddressed. As we have seen in the course of this chapter, many philosophers have offered detailed accounts of how the world is structured according to relations of fundamentality. The features of relative fundamentality are explained and scrutinised, and absolute fundamentality has been a hot point of contention for the last two decades. Overall, we have a good grasp of what is meant by fundamentality, both as a special structural relation and as an independent and complete entity. In a way, we can picture the world as structured according to this notion. What remains relatively underdeveloped, however, is 'what makes something more fundamental than another.' We say *a* is more fundamental than *b* just in case *a* is basic compared to *b*, and *b* relies in some way on *a*. But what is it in *a* that makes *a* basic compared to *b*? What in *a* makes it such that *b* must rely on it in some way? Is there something in *a*'s nature that makes it more fundamental than *b*? Or is it something in *b*'s nature that makes *a* more fundamental than *b*, such that *b*'s 'need to rely on *a*' makes *a* more fundamental? Another option could be that it is not the nature of either, and *a* is more fundamental than *b* only because in a certain chain of fundamentality, *a* happens to be at a certain level and *b* at another and only in virtue of their place one is more or less fundamental than another. Finally, the most common answer in contemporary literature amounts to dismissal: many philosophers believe fundamentality is a primitive notion, meaning something's being more or less fundamental than another needs no further explanation.

As we shall see in Chapter 5, I find all these options unconvincing. I believe fundamentality is a structural relation that, together with all its relata, forms 'reality.' However, neither reality nor its structural features are primitive notions. As we shall see, I take being (and its existential features such as degrees) to be the only metaphysically primitive notion. So, reality and its structural features must be accounted for in terms of being. In the following chapters, I will develop a view according to which reality is the manifestation of being, and its hierarchy is effectively a reflection of what I shall call 'degrees of being.' But first, let us talk about being itself.

2. Being a Being

As we have already seen, the recent works in metametaphysics lean toward explaining how the world is structured in terms of relations of fundamentality. In Chapter 1, I offered an overview of what is meant by fundamentality and what we mean by the hierarchical structure of the world. What remains unanswered is 'what makes an entity more fundamental than another.' In the course of this chapter and the next, I shall argue that the answer to this question can only be found in the nature of existence. But what is existence? This is an impossibly challenging question to answer, but in this chapter, I will seek to draw a general picture of what we mean when we talk about existence.

In the first book of 'Metaphysics' in his *Book of Healing* (*al-shifā*), Avicenna proposes a variety of responses to sceptics about 'existence,' all of which, he realises, is based on assumptions that those sceptics could deny. He goes on to propose one final method (perhaps in a humorous spirit): the sceptic should be beaten up so they could testify that there *is* at least pain – or in other words, there is a difference between pain and non-pain.[1] It seems Avicenna was not very good at conversing with opponents, but there is an interesting philosophical idea in his violent method of ontology which is not dissimilar to Descartes' *cogito*: both find the termini of chains of arguments about what exists in one's immediate experience; Avicenna in the experience of pain and Descartes in the experience of self.[2] These sorts of answers, however, are products of not having a clear definition of existence.[3] If one has a definition for existence, one does not have to rely on the immediate experience, which, in the end, is nothing more than an instance of being. The trouble, however, is that when something is so ingrained in our experience of the world, it is nearly impossible to put a finger on it. To refer to Avicenna again, being is what we have and is what we experience all our lives; we *are,* and the experience of being is our most immediate experience. Since we always exist, we do not recognise existence in any particular way: "…[J]ust like sunshine which would become starkly apparent as soon as it disappears, and when it is constantly present it veils its presence. Thus, the brightness of [the sun] veils the brightness of [the sun]."[4] Despite its mystical undertones, this allegory is quite telling: we don't experience being distinctively because it is all we experience.

The sunshine, for Avicenna, is apparent when it is blocked. The allegory implies that even though we always experience existence (of ourselves and others), we are still more likely to conceptualise being based on our experiences of loss and lack.[5] From very early on in the history of philosophy, being was defined in opposition to lack or to nothingness. Parmenides is a good example in this respect. Although he unequivocally rejects the idea of nothingness, he forms his sharp and lively argument for 'existence' based on the assumption that 'nothingness' is unthinkable and, perhaps, impossible; therefore, things must *be*: "It must be that what is there for speaking and thinking of *is*; for [it] is there to be, whereas 'nothing' is not."[6] Parmenides does not argue that something exists in contrast with the possibility of its end or in contrast with another thing that existed and now does not, but instead, he says that things exist because they must: because *not-being* is impossible. Yet his argument for being is still closely related to nothingness because he relies on the impossibility of

[1] Avicenna (2009), 43; I.8.15 (my translation)
[2] Descartes (2003), I.8.
[3] I use existence and being (including forms of 'to be') interchangeably.
[4] Avicenna (1996), 80 (my translation)
[5] This aspect of Avicennan ontology was further developed by Thomas Aquinas in his *Being and Essence*.
[6] Parmenides (1984), 61; Fragment 6.1-2. (Italics and punctuations are Gallop's)

non-existence to show the necessity of existence. Having these two approaches together (i.e. the experience of being in contrast with lack and the experience of being as a result of the impossibility of nothingness) provides us with a rudimentary (or even intuitive) understanding of the notion of being.

Being is a primitive notion: it cannot be defined, as we have already seen – neither can it be charachterised in other terms. Furthermore, there is no need for any argumentative defence of 'existence' since there cannot be a theoretical stance that genuinely argues against it.[7] What *is*, just is. As a result, ontology (at least contemporary ontology) is never about whether things exist but is instead about *what* things exist. This is what I shall call ontology proper, a discipline of philosophy that answers the question of 'what is there?' This includes the majority of works of ontology in the previous century or so and, at its core, includes the theory of categories. In other words, a theory of ontology is essentially a theory that aims to determine to what category each entity belongs.[8] There is, however, another path to the ontological enquiry, perhaps built upon 'ontology proper,' that is to determine 'what it is to be an ontological category' and 'what it is to belong to an ontological category.'[9] This is what we shall call meta-ontology.[10] Meta-ontology is what matters to us the most in the present work. In fact, this thesis is a meta-ontological approach to determining the metaphysical status of things, i.e. to the question of what makes something more or less fundamental than another.

So, we will need an appropriate meta-ontological theory which could be employed to explain the hierarchical structure of the world. In order to offer such a theory, we shall first set up the grounds on which it stands. That would be the aim for this chapter and the next. Here, in Chapter 2, I will survey the two main meta-ontological theories that have remained principally the same since Aristotle. These are what we know as equivocalist and univocalist theories of being: the former takes existence to have many senses, and the latter takes all that exists to exist in the same sense. This is an important starting point for my view of being (which will not come up until later in one and Chapter 3) because I believe this theoretical divide has an essential role in how we understand the structure of the world. I believe this division is most pronounced regarding our understanding of the ontological categories, and that is where I start my enquiry into this theoretical rivalry. So, the pressing question would be whether, by belonging to different ontological categories, entities would enjoy different states of being distinct from the states enjoyed by entities of other categories or not.

To carry out the task described above, I will first give a brief overview of what is meant by 'ontological category.' In doing so, I will also review some major theories of categories, from Aristotle's to some of the contemporary theories such as Roderick Chisholm's and E. Jonathan Lowe's. Furthermore, I will address the question of what it is for an entity to belong to a category by arguing that categorisation is, first and foremost, a system for determining *kinds of being*. In the relevant literature, kinds of being are closely associated with the equivocality of being, so from here

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[7] The argument against existence is not uncommon in the history of philosophy, but it was never taken seriously. Regardless of the success of such a statnce, philosophers kept writing in defence of "existence of something rather than nothing." A good critical overview of views against possibility of existence could be found in Chapter V of Grossmann's *The Existence of the World* (1992). An outstanding monograph on defence of existence is Bede Rundle's *Why There is Something Rather than Nothing* (2006).

[8] Lowe (2006), §1.6 & §3.5.

[9] Westerhoff (2005), 20-1; see also Lowe (2006: §5.1) and McDaniel (2017: §4.1).

[10] The term was coined by Peter van Inwagen in his paper 'Meta-ontology' (1998; reprinted in 2001) in which he stresses the significance of such metatheory of ontology and distinguishes it from first-order ontological questions.

on, the theoretical divide between the two camps will come to the fore. Consequently, then, I shall survey each of these views (namely equivocality and univocality of being) separately before showing, in the next chapter, that the disagreement between defenders of each view is likely based on a terminological confusion.

2.1. What is Categorisation

In the first section of Chapter 1, I discussed how we often conceive the structure of reality to be hierarchical. It is important, however, to realise that such a hierarchy is a hierarchy of 'groups of entities' rather than a hierarchy of entities themselves. Each of such groups is a grouping of entities of the world based on the features or conditions those entities share; each of them, then, stands in a higher, lower, or same-level relation to other groups of entities. These groups are often called *kinds* in the relevant literature. The problem, however, is that not all manners of ontological grouping result in kinds of being: entities could also be grouped according to their modes, ways, senses, and many other aspects. All these are legitimate ontological groupings, yet they do not necessarily, or at least directly, matter when it comes to the fundamental structure of reality as commonly conceived. So, it is crucial to determine the correct manner of such groupings to build our theory about the structure of reality.

As discussed towards the end of the previous chapter, the dominant tendency among contemporary metaphysicians to address almost all questions of metaphysics with a set-theoretic approach is deeply problematic, if not outright futile. E. Jonathan Lowe's treatment of this trend, thus, rings true that 'nothing could be more myopic and stultifying than this view that all the purposes of ontology can be served by set theory and set-theoretical constructions."[11] One of the matters of metaphysics (or, more specifically, ontology) for which set theory has recently been heavily employed is determining the kinds or types of entities and grouping entities according to these kinds or types. This job has usually been done (quite adequately) by utilising *ontological categories*. At first, admittedly, the set-theoretic approach to grouping the entities of the world sounds quite attractive: from the set-theoretic viewpoint, the world is seen as a vast collection of entities, each of which is a member of a group (i.e. set) which is formed by their members; this group-making, or set-formation, is how the reality is structured. This, indeed, is a straightforward account of the structure of reality and appears to be based on what there is. In a way, set theory aims to replace all the seemingly arbitrary models of categorising offered in the past.

However, just as it was with fundamentality, which I discussed in Chapter 1, set theory is rife with shortcomings when it comes to the task at hand – i.e. categorising what there is. The main issue is with the very nature of set-formation: In set theory, the elements of a set form that set, meaning that a set only exists if its members form it. However, at least it appears that entities of a particular type already belong to that type without being its constituents. This intuition is well reflected in the Aristotelian model of genus/species, which underlies his categorical system: the 'animal' is the genus and 'human,' 'common chameleon,' and 'sturgeon' are species of that genus. It is not the case that humans and common chameleons and sturgeons build or form the group 'animal', but they *are* animals (meaning moving living entities) and thus grouped as such.[12] The set-theoretic grouping of

[11] Lowe (2006), 6.
[12] Aristotle (1984a), 170 [*Topics*, $102^{a}31$-$102^{b}2$]. Also see Lloyd (1962).

entities ultimately misses this point. On the other hand, if we take sets not to be formed by the members, then, at best, we have nothing but a theory of categories under a new guise.

'Category,' however, is a loaded term which has been used in many different disciplines meaning variably different things. Metaphysicians do, indeed, have a solid claim to define this term since it was from within their discipline that the term 'category' emerged: Aristotle is believed to be solely responsible for branding this term in his treatise later bearing the same word as its title, using it more or less as what we use the term 'predicate.'[13] However, regardless of whether metaphysicians could claim a monopoly over this term, they have shown (not at all surprisingly) a great deal of disagreements about the nature of 'categories' among themselves since more or less the inception of the idea. For instance, whereas Aristotle uses the notion 'category' (κᾰτηγορΐᾱ, *katēgoríā*) to indicate the grouping of predicates which describe certain aspects of objects, Immanuel Kant speaks of the same notion (*kategorie*) to classify our judgments about reality rather than reality itself.[14] More recently, among philosophers of the first half of the 20th Century, such a variety of views could still be found: Gilbert Ryle's understanding of categories is more focused on logical and sentential analysis,[15] while some British Emergentists, such as Samuel Alexander, tried to form systems of categories to reflect the structure of reality in itself.[16] As we shall shortly see, the same variety of views and disagreements over the nature of categories still endures among our contemporary philosophers.

The previous paragraph admittedly sounds as if categories are understood so differently by different philosophers that, in order to avoid confusion, we might be better off without them.[17] However, even if philosophers try to abandon theories of categories, they would arrive at other manners of grouping/categorising the world's entities: categorising the objects that environ us appears to be essential to how we deal, at least philosophically, with our world. Gilbert Ryle rightly says in this regard that "…we are in the dark about the nature of philosophical problems and methods if we are in the dark about types… or categories."[18] Also, it is important to note that the disagreements about the systems of categories are mostly technical and are about the content of each system, not about the existence or the nature of categories. Categories are, in principle, *ways* or *kinds* of entities that exist or could exist. Even a Kantian theory of categories that is purely based on our judgment about categories is categorising something that exists according to *how* we believe it exists. However, here the first question would immediately follow: what do we mean by *ways* or *kinds* of being? And then, after that, a flood of questions follows: How many of these ways or kinds are there? Are they arbitrary? Do they *really* exist, or are they products of the human mind? Are there sub-kinds and sub-ways? Is there a kind of all kinds? And many more such questions. These secondary questions are those questions which create endless debates around categorisation; the disagreements are all about what and how many categories there are. However, for better or worse, that has nothing to do with the present work, mainly because all such questions are questions of first-order ontology. But answering the first of these questions, which is concerned only with the nature and the meaning of

[13] Ryle (1971), 170. Though κᾰτηγορΐᾱ primarily meant 'accusation,' Aristotle used it to also mean 'predication.'
[14] Kant (1998), 206-23 (A70/B95 – B124/A92)
[15] Ryle (1971)
[16] Fisher (2015).
[17] There are very few serious works of philosophy, if any, that suggest the abandonment of any system of categories; however, the variety of apparently opposing theories of categories has, unsurprisingly, caused scepticism among some contemporary philosophers. The result of such scepticism is a move towards relativist views about categories that have been discussed by Jan Westerhoff (2005).
[18] Ryle (1971), 170.

the 'ontological category,' is a meta-ontological task and, as such, is of theoretical import to this investigation. I do not mean to offer a new definition for categories – there is no need for that. Here I draw upon the developments of the theories of categories in recent decades to create a foundation for my theory of being.

Just as with the theories of fundamentality mentioned in the previous chapter, there has been a surge in a revival of Aristotelian views in the field of categories in the last few decades. Neo-Aristotelian ontologists offer theories principally based on lists of real entities in the world. These post-1990s views are critical responses to linguistic/conceptual analyses that had traditionally dominated the debate in analytic philosophy. For instance, Ingvar Johansson writes in the introduction of *Ontological Investigation* that his book is "about the world" and that he is "concerned with ontology, not merely with language."[19] The neo-Aristotelian philosophers of categories, like Johansson, are primarily concerned with the ultimate categories of reality.[20] This means that there are numbers of categories, all of which describe how a thing is or could be. An example could help: 'Socrates' exists, but his existence is defined through the *ways* he is or, in Aristotle's terminology, the way(s) he becomes *actualised*. Aristotle lists ten categories that could describe all the ways in which something could be. I do not intend to present Aristotle's whole system of categories, but to give a sense of what he means by this, think of Socrates' height or weight, which gives us some ideas about quantity (a category) related to Socrates; so does the place (also a category) that Socrates dwells and what he is doing at the moment (action and time are also categories in Aristotelian system). Socrates' self, meaning this particular human being that bears all those other categories, is also a category called 'substance', which, for Aristotle, is in one sense the highest of all categories (because it has ontological priority over the rest of the categories).[21] Many philosophers after Aristotle modified his system to make it more compatible with the structure of reality according to their own views. Some of these philosophers, especially after Kant, even dismissed the priority of 'substance' and treated it as a subcategory or at least as lower in the hierarchy of categories.

Regardless of the number of categories and sub-categories in any given system of ontological categorisation, one thing remains the same: most theories take categories as the *ways of being* rather than anything else. 'Ways of being,' however, has proven to be a confusing notion, especially considering how we understand it at its origin in Aristotle's works. Aristotle uses the term σημαίνω (*sēmaínō*),[22] which could be translated as 'meaning,'[23] but traditionally, especially after the Latin translations in the Scholastic period, it has been translated as 'way,' a translation which found its way into the rendering of Aristotle's thought in the modern time through works of the likes of David Bostock and G. E. L. Owen. There is, however, more to the notion of 'ways of being' than to only mean 'sense' or 'meaning,' and that is probably the reason behind the choices of so many contemporary philosophers and translators to settle for a seemingly metaphorical (and relatively vague) term such as 'way.' What Aristotle speaks of in his ten-category system, however, is how things exist. The redness of a brick is a way in which a brick *is* – it is a quality of the brick. So is 'located in London' (location) for Tower Bridge, '85 kg weight' (quantity) for the author of these words 'at the time of writing this chapter' (time). There is, however, an exception among the categories of Aristotle: the category of substance. The four examples I mentioned above are all of the non-substantial categories (in total, there are nine of them), but all of these are the ways something

[19] Johansson (1989). 1.
[20] Chisholm (1996), 3.
[21] Peramatzis (2011), 232-3.
[22] Aristotle (1984b), 1646 [*Met.* 1042^{b}25].
[23] So W. D. Ross renders it as such and Joan Kung defends this rendering (Kung, 1986: 3-4).

is while that thing itself is substantial. This is to say that what Aristotle means by 'substance' cannot be understood as a 'way of being.' There is a clear difference between being-this-brick (a particular brick being what it is) and that brick's redness. The ways in which an entity exists could change while it remains what it is. I can lose weight or dye my hair purple and remain the same person; or if (after a complicated legal, as well as engineering process) we move the Tower Bridge as it is to a different location, some might say it remains the same entity. So, things endure change as long as the change is non-substantial, meaning the ways they exist change, not the sense in which they exist.[24]

As a consequence of the difference between substance and attributes, there is another approach to categorising entities: if the system so far discussed is to be called categories of the ways of being, we can also think of a system of categories for *kinds of being*. Roderick Chisholm, for example, offers a system of categories that is, for the most part, focused on kinds – rather than ways – of being. In his system, *Entia*[25] is the general concept of being that includes all that there is and, as seen below (in Figure no. 1), it divides into two categories each of which divides into further categories which identify kinds of entities. Without getting into details of this system, it is important to note that for Chisholm, the ways things exist still matter, but those are now treated only as subcategories of the kinds of being. So, to categorise entities according to their kinds, we are not abandoning entities' attributes (i.e., ways); instead, we treat them as secondary to kinds.

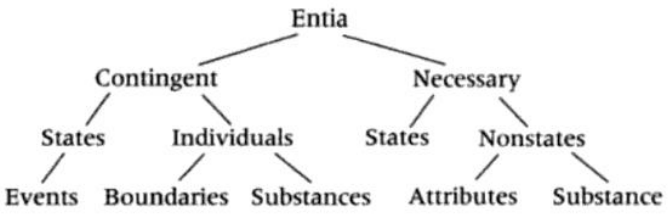

Figure. no. 1[26]

Chisholm is, of course, not the only philosopher, Aristotelian or otherwise, to have moved towards a kinds-of-being system of categorisation. For instance, although what we usually mean by 'Aristotelian Categories' is the system of ways-of-being that I explained above, Aristotle himself has a kind-based system of categorisation that he discusses at the early stages of his *Categories*, upon which his metaphysical theory firmly stands.[27]

Now, similar to the Aristotelian system, most of the contemporary systems of categories (at least neo-Aristotelian ones) are firstly hierarchically organised and, secondly, are individuated by distinctive existential and/or essential conditions of their members.[28] The first of these two features does not need further explanations (it should also be evident in Figure no.1). The second feature,

[24] This is, of course, a purely ontological justification for persistence. There is an abundance of metaphysical debates about how things persist and none of the sides of such debates would be satisfied with this ontological answer. Nonetheless, from the neo/Aristotelian viewpoint any being survives changes in their non-substantial attributes.

[25] Latin word meaning 'beings' with singular form *ens.*

[26] This figure is from Chisholm (1996) page 3.

[27] Aristotle (1984a), 3 [*Cat.* $1^{a}20$-$1^{b}9$]. Aristotle categorises all entities into four kinds/types: *a*) secondary substances, meaning species and genera, like 'man' or 'animal' (*said of* things but not *in* things), *b*) tropes or individual attributes like the particular red-ness of an individual brick (*in* things but not *said of* things), *c*) universals like red-ness (both *said of* things and *in* things), and *d*) primary substances like Socrates or Fido the dog (neither *in* things nor *said of* things).

[28] Lowe (2006), 6.

however, needs a brief elaboration: it means that existential (or essential) conditions that all members of a category share define that category. 'Concreteness' and 'actuality' are two instances of such conditions. So there could be a category of concrete entities in a system of categorisation that contains all the concrete entities in the world. This could sound as if a category is made up of its members, similar to the concept of set-formation, but that would be a misunderstanding of this feature of systems of categories. Categories are not made up of their members' shared existential/essential conditions; instead, they are groupings that include all entities that share those conditions. The difference is subtle: the first is 'an object' made of some other entities, just as sets are formed of their members; the other is a representation of conditions/features that some entities share; the former is formed of the entities which are its members, the latter only picks up, or rather signifies, those entities that share some particular features. In this sense, the category of 'individual substances' in Chisholm's system does not have particular individuals as its members; instead, it contains some conditions (such as 'individuality', 'particularity,' 'concreteness,' etc.) through which we can recognise anything in the world that shares those conditions and therefore is of that category. 'This brick,' 'Jeremy Corbyn,' and 'that planet' are not, therefore, constituents of the category of 'individual substances' – instead, they are covered by that category.

It is precisely this individuation of categories, using specific existential/essential conditions of members of those categories, that results in a particular number of categories in a given system. In other words, the manner in which a philosopher identifies such existence/identity conditions translates into the number of categories in the system they offer. It is based on this process of individuation, for instance, that Aristotle identifies ten (if understood as 'ways of being') or four (if understood as 'kinds of being') categories. Chisholm, on the other hand, identifies two primary categories for *Entia* (what there is), namely 'necessary beings' and 'contingent beings,' each of which divides into further secondary categories.[29] Chisholm's categorisation is modality-oriented but still fits the description I gave above: he identifies the primary and secondary categories based on the existential/essential conditions and divides them into a hierarchical structure.

Another theory of categories I shall speak of to bring this survey about theories of categories to an end is E. Jonathan Lowe's *four-category ontology*. Simply put, his system is comprised of two distinctions: one between *objects* and *properties* and the other between *universals* and *particulars*. These distinctions result in four categories covering all entities: 'Universal objects' are what we often call *kinds*, concepts such as 'human,' 'limestone,' 'nebula,' etc. (these are what Aristotle calls secondary substances). 'Universal properties' are what we call *attributes* or properties (that is, regardless of their instantiation). These are concepts like 'redness' or 'being married.'[30] 'Particular objects' are what Aristotle calls 'primary substances', which entail individual objects that differ from all other objects of a certain kind, such as 'Jeremy Corbyn' or 'Nebula M57.' Finally, 'particular properties' are what Lowe calls *modes*, which are particular properties that one can speak of in individual terms, such as 'red-ness of this brick' or 'John's marriage to Anna'.[31 & 32]

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[29] The division of 'necessary' and 'contingent' beings into further groups could also be interpreted as *sub-categorisation*, but Chisholm argues for these divisions to look like something that I prefer to call secondary-categorisation, just as non-substantial categories for Aristotle are more secondary-categorisation in relation to substance rather that sub-categorisation.

[30] Being married is, of course, a relation, meaning it is, in this case, a dyadic property. Relations are multi-placed properties.

[31] Lowe (2006), §1.6.

[32] This final category, which is more or less the same as *tropes*, could also be found in Duns Scotus' works (for instance in his *Ordinatio II*). He calls this *hecceity* (Latin: *Hecceitas*) which should not be mistaken with the

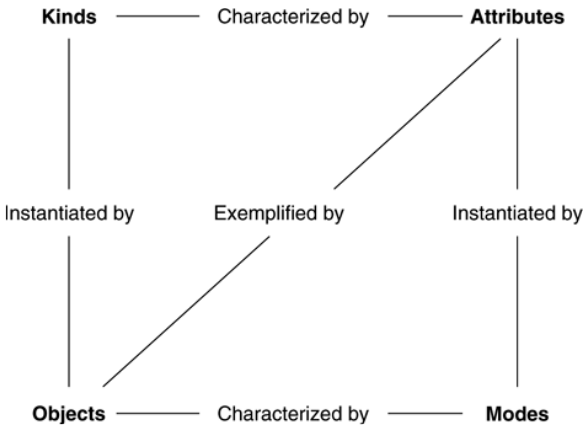

Figure no. 2[33]

In a sense, Lowe's four-category ontology is a contemporary take on Aristotle's initial categorisation of kinds of being into four types at the beginning of his *Categories*.[34] While the simplicity and intuitiveness of this system of categories, alongside the lack of arbitrary groupings, make it a coherent theory of categories, the general nature of its four categories leaves more precise groupings of entities of the world to sub-categorisation. This is also the case in Aristotle's theory: he starts with a very interesting if a little ambiguous, four-category ontology and then goes on to offer a further theory of categorisation for precise groupings – which is arbitrarily ten for him. Lowe, on the other hand, leaves all such groupings to sub-categorisation, which are the results of the relations between those categories (i.e. 'instantiation,' 'characterisation,' and 'exemplification;' see Figure no. 2).

So, we now know what is meant by categorisation, whether understood as 'ways-of-being' or 'kinds-of-being.' My understanding is that ontological categorisation is, or ought to be, primarily concerned with kinds of being and after establishing a theory for such categorisation, the theory could go on to categorise the ways those kinds could be. Kinds of being are the essential aspects that cannot be changed without putting an end to what an entity is, while ways of being, as we saw earlier, are more flexible in this regard. It is, however, important to note that the ways of something's being are, themselves, instances of a kind, and, in that respect, their kind could not change without putting an end to their being. For instance, the particular brick *b* is red; let us call this particular instantiation of 'redness' *r*. Now, *b* could lose *r* and remain substantially the same;[35] but *r*, itself, is an instance of a kind, a particular mode of the attribute 'redness.' So, *r* is a way of being for *b* but *for* and *in* itself, it is an instance of a kind which could not change without *r* ceasing to be what it is.

So, putting the set theory aside, we find two major approaches to the ontological grouping of entities: categorising the ways of being and categorising the kinds of being. Neither is preferable to the other because they target different features, but it is fair to say that kinds of being are ontologically prior to ways of being. It could even be argued that ways of being branches from the much larger catalogue of categories of kinds of being. By mentioning some examples of the kinds of being, I tried to demonstrate how kinds differ from one another. Yet, whether it appears to be

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contemporary use of the term. To Duns Scotus "this-brick-ness" is a property that is the feature of only one particular object, i.e. this brick.

[33] This figure is from Lowe (2006: 19).

[34] See footnote no. 26.

[35] Again I am keeping my distance from the heated debate over persistence and claiming this just for the sake of argument here.

straightforward a notion to us or not, we still do not know what is meant by 'kinds' that are so neatly categorised in, for instance, Lowe's system of categories.

2.2. Kinds of Being

The categorisation of the entities according to their kinds is more about substances than attributes or properties. David Armstrong describes kinds as "universals that are both other than mere properties and in some way govern properties."[36] E. Jonathan Lowe has the same general idea when he speaks of kinds as 'substantial universals' as opposed to properties which are 'non-substantial universals.'[37] In Lowe's system, objects are instantiations of kinds, while 'modes' are instantiations of properties (which he calls attributes). For instance, 'brick' is a kind, a substantial universal, that has particular bricks as its instantiations. A particular brick could be red; the redness of this particular brick is how the brick is modified, and so, it is an instantiation of the property of 'being red.' Since the brick is something that bears the red, and the particular redness of this brick could not be instantiated without this particular brick's existence, the brick is considered to be substantial and its redness non-substantial. In categorising entities, different things are grouped according to universals, some of which are of a substantial, and hence 'governing,' type and others are non-substantial. So, in grouping entities according to universals, there is a categorisation according to kinds of being and a categorisation according to ways of being – a seemingly neat manner of categorising 'everything' indeed.

There are, however, some issues with this suspiciously neat way of categorisation; one such worry is in dealing with 'events.' The above categorisations are neat enough when dealing with objects and modes, but events are neither. Events are not objects because, as Max Cresswell argues, objects just *are*, whereas events *occur* or *happen*.[38] Peter Hacker explains the difference between this 'just being' and 'occurring' in terms of spatiotemporal rigidity; objects occupy a specific spatiotemporal region without sharing that region with any other object, whereas events, in a sense, are likely to co-locate with other events.[39] If events are not objects, then, according to Lowe, we cannot speak of kinds of events. However, events are not modes (i.e. instantiated properties) either. The general view on the difference between properties and events is that properties recur, whereas events occur. Nevertheless, there are cases of recurring events which make this distinction redundant. Christmas is a recurring event, and so are the metaphysics lectures I give on Mondays. One could say that no Christmas is the same as the other, so they could not be seen as recurrent; also, the content of each of my lectures is so different that they cannot be seen as recurrent either. But then, we can say no particular instantiation of redness is similar to any other instance of redness; therefore, the property 'redness' is not recurrent either.[40] It appears, thus, that 'occurring vs recurring' is not successful in differentiating between properties and events. A better way to cut reality at joints here is to rely, yet again, on Aristotle and understand properties as non-substantial entities which are *attributable* to objects. Here, events are certainly not understood in terms of attribution to objects; so, if events are neither objects nor modes, then what are they, and how can we categorise them without being able

[36] Armstrong (1997), 65.
[37] Lowe (2006), 144.
[38] Cresswell (1986), 371-5.
[39] Hacker (1982), 9-17.
[40] This is a legitimate view of properties which has been defended since at least the 6th Century CE. An excellent overview of contemporary trope theories could be found in Daly (1997).

to put them in one of Lowe's neatly drawn objects-properties system? (The same problem stands for facts and states of affairs.)

Let us go back to the definition of universals to clarify the above point; I said earlier that particular entities are, in a sense, instances of kinds (understood as substantial universals). The relation between particular and universals in this respect is closely related to what C. S. Peirce speaks of when he speaks of tokens and types: in a given written page, there are around twenty 'the's, but there is only one word 'the' in the English language; all those 'the's in a given page are tokens of the word 'the' which is their type.[41] In the same way, Jeremy Corbyn, the chap selling currywurst somewhere in Berlin, and Empress Theodora are all tokens of the type 'human.' The connection between the two pairs of terms should be clear: tokens are particular instances of types, just like objects are particular instances of substantial universals. Properties, too, are recurrent instances of universals (e.g. particular reds of different objects, which are instantiations of the property 'being red').

The view presented above, that universals are 'entities' that are instantiated in particulars attracted many philosophers through time, but it is by no means the only view – not even the only 'mainstream' view. Universals are understood by many in terms of classes of particular entities based on shared features of those entities. According to this view, 'being human' is not an entity that is being instantiated in Jeremy Corbyn, the currywurst seller in Berlin, or Empress Theodora; instead, 'being human' is a term (or concept) that covers all these and any other entities that share some essential features. This, in effect, makes universals 'groupings of entities' rather than entities in their own right. David Armstrong calls this view of universals *class nominalism*.[42] From this viewpoint, to be a particular of a certain universal is the same as being a member of a class.

The difference between the two views about universals could not be more pronounced: the first view (which we can call the realist view) takes universals to be real entities in their own right, and the second view (the class nominalist one) takes them to be a class of real entities. Realists give priority to universals, with their particulars nothing but their instances, whereas class nominalists see the objects (and, perhaps, modes) as metaphysically prior to classes, which they effectively form. In a way, the directions of the two views are opposite: the former view starts from universals and repeats it through instantiation, and the latter view starts from instances and gathers them to form a group. However, Each of these manners is concerned with types of entities, call them universals or classes, that have those entities as their tokens.

Whether we see them as instantiated universals or classes, these types could be further grouped according to the features and conditions they share with other types. These ultimate types are what I call *kinds of being*. For instance, Charlemagne is a token of the type 'human,' my cat, Baudolino, is a token of the type 'cat,' and this desk is a token of the type 'desk.' All of these types, themselves, belong to a *kind of being* that we call 'concrete objects.'[43] The qualitative types such as 'redness,' 'octagonal shape,' 'being two meters tall,' or 'being smaller than…' are also members of their kind, i.e. 'properties.' Up to this point, there is not much difference between Lowe's system of

[41] Peirce (1931-58), sec. 4.537.

[42] Armstrong (1989), 8.

[43] One can say Charlemagne and Baudolino the cat belong to the kind 'organic objects,' but since that is a sub-kind of 'concrete objects' I just skip that classification. It is also important to mention here that 'material objects' is itself a sub-kind of 'concrete object' and although in the examples mentioned above, I did not mention any type of physical beings, such as visible light, ionization, or acoustic waves, should belong to the kind 'concrete objects.'

categorisation and this chain of groupings I am suggesting. However, if we take the path of kinds of being, we can also speak of events, states of affairs, and facts in terms of their respective kinds of being. So, these ultimate types, these kinds of being, are determined based on the essential features or conditions shared by the entities of each kind. Therefore, this essentiality of features and conditions is central to determining the kinds of being. A feature or a condition is essential to an entity just in case that entity cannot be what it is (or function as it does) without that feature or condition. For instance, one could argue that concrete objects share 'spatiotemporality' as one of their essential features. It is, then, due to the essentiality of features and conditions that kinds of being are not mere arbitrary groupings of entities, and it is due to them that categories are concerned with the kinds of being and nothing else.

As mentioned in the previous section, systems of categories are systems of classification of the entities, allowing us to treat different entities according to some general rules associated with the category they belong to. The categorisation is, therefore, the very act of determining the kinds of being as explained above: it is to determine which types of entities are of what kind of being. Hence, while there are innumerably many types (i.e. universals or classes of entities), there are a few 'kinds of being' which have these types as their members:

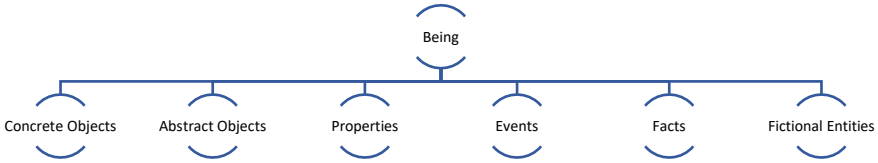

Figure no. 3[44]

Systems of categories, such as the ones discussed in the previous section, are forms of grouping entities which I explained above. Both of Aristotle's systems of categories are attempts to put all sorts of entities (as well as all ways in which they appear) in some ultimate groups. Other philosophers (e.g., Avicenna, Kant, Hegel, Chisholm, Lowe, etc.) have the same programme in mind when offering their respective categories. The problem with most of these systems, especially the more recent ones, is their obsession with reducing some kinds to others. Of course, there are merits in reductionist approaches, but that is only true as long as such reductions do not make the categorisation of entities either arbitrary or mistaken. As we have seen, Roderick Chisholm reduces all types of entities to a modal dichotomy of necessity and contingency., Lowe, on the other hand, tries to reduce facts and events to properties to fit everything in his categories of objects and properties. Chisholm's reductionism results in two 'highest' categories, both of which fail in doing the job of categories, i.e., using general notions to speak about all entities of a particular kind. So, Chisholm's categorisation at its highest level is somewhat arbitrary (if not redundant), while Lowe's reduction seems to be mistaken because his justifications for reducing different kinds of being to properties and objects are rife with controversies.

If instead of this, we allow a non-reductionist view of categorisation, types could be grouped into further types in chains, which could terminate in the most general types of entities – which I called 'kinds of being.' I call the types, types of entities and this most general of them 'kinds of being'

[44] These are the kinds of being which are well-established in the contemporary debate of analytic ontology. There could be other kinds, and as we shall see in the next chapters there are sub-kinds which are shared by two or more of these kinds.

because of the direction of the chain of categorisation: types are types of entities because we define them in terms of essential features of their tokens. 'Kinds of being,' on the other hand, are defined as kinds in which the most general notion is 'characterised'. The most general notion is 'being', which has no appearance without characterisation. The being is characterised by its kinds – i.e. kinds of being. So, we can see the chain of groupings of entities moving in one direction towards the more general in which each group is a type of the less general entities (or groups of entities), but we can also see the same chain moving in the opposite direction where the less general entities (or groups of entities) are kinds of the more general group. Thus, 'kinds of being' are also the most general types of entities (not considering 'being' itself).[45] To see this in an example, cats are animals, and since animals are living entities and living entities are material and material entities are concrete, then cats are concrete objects. This does not mean that cats are not animals or material; instead, it means that, ultimately, cats belong to concrete objects. In this manner, we have a group of types called kinds of being, which are ultimate types that all other types are members of and could only be reduced to 'being' itself and not anything else.

Taking 'kinds of being' as the ultimate grouping of entities, we would avoid double categorisation of entities. An abstract object is never also an event in a system such as this,[46] nor is a fact ever categorised also as a fictional entity. The distinction between kinds of being is clear. There is nothing more general than them (other than 'being,' of course), and they cannot be replaced by other kinds of being. There is a chain of types that stands between them and particular entities, but these types themselves are never treated as particulars. These intermediate types are instruments of categorising, the predicables that limit a particular to all that it is and distinguish it from all that it is not. In this sense, we have a system of categories with kinds of beings as ultimate categories that are particularised through intermediary types. The figure below is a raw model for such a hierarchy of types, from tokens to kinds of being.

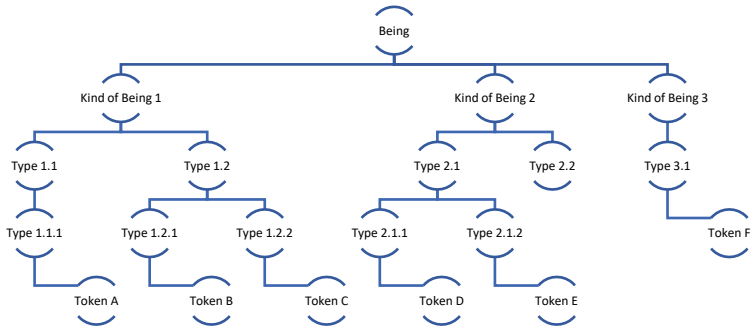

Figure no. 4

[45] This is in line with Aristotle's notion of predicables discussed in Chapters 4, 5, and 8 of Book I of his *Topics*. The discussion of predicables was further elaborated by Porphyry in his *Isagoge* where he speaks of chains of associating tokens to their types up to most general types, similar to what I discuss here.

[46] Of course, unless one is committed to a system of categories that has only abstract and concrete as its kinds of being, in which case events are probably categorised under abstract entities.

To see what it looks like for some concrete objects, let us look at the figure below:

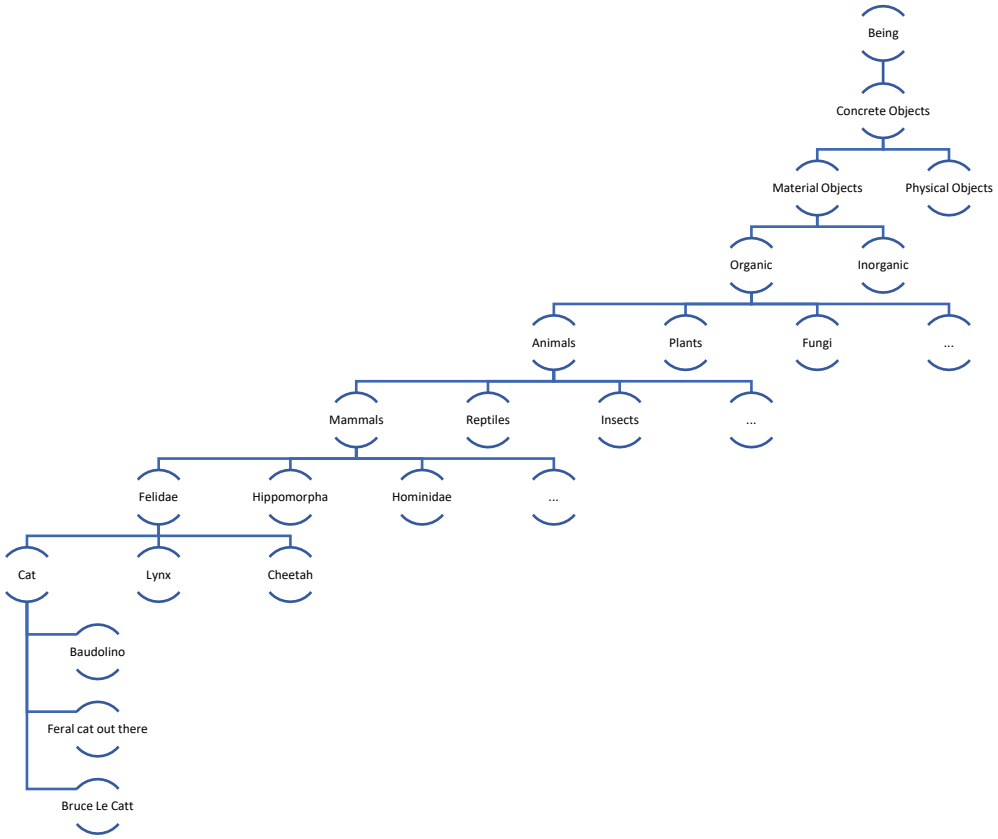

Figure no. 5

Therefore, kinds of being cover all that there is by means of chains of groupings. As I mentioned above, the relation between higher and lower groups (which I called kinds and types) is similar, in principle, to what Aristotle and Porphyry call genus-species relation. So, if *a* is a group that includes group *b*, then *a* is a genus for *b,* and *a* is *b*'s species. For instance, in Figure no. 5, we can see that 'mammal' is genera for 'cats,' while 'mammal' is itself a species of 'animals.' Now, since all the 'predicables' between particular entities and 'kinds of being' are classifying types which connect these two, we could say that particular entities are ultimate species and kinds of being are ultimate genera.

Finally, let us talk about 'being', which is posited at the top of this hierarchical structure. Such positioning is only for convenient demonstration of this Aristotelian-Porohyrian system. There is no need for a single highest being at the top of this structure such that the kinds spoken of belong to. I said the kinds of being could be reduced to 'being' in its general sense, but doing so makes no difference in understanding of quiddity of entities or categories. Let us see this point in terms of genera-species relations. When we have a system of classification such as the one above, it is normal to think that the chain ends in a most extended notion that covers everything; the genus of all genera. Neither Aristotle nor Porphyry agrees that 'being' is such a thing. For something to be a genus, that thing has to be within the system defined above, such that it should be differentiated from other classes [by a differentia] to be limited to all that it is and be distinguished from all that it

is not.[47] For being to be placed in the system as such, it has to be differentiated by something outside itself, something that is not non-being, which is, as Aristotle agrees, absurd.[48] Therefore the highest layers of this system remain for the kinds of being in their plurality. As a result, the question of equivocality of being becomes central: now that we have kinds of being at the highest layer of our system of classification, does this mean that particular entities 'exist' differently when they are of different kinds of being? But then when we say this and that are 'kinds *of being,*' shouldn't this mean that they all exist, ultimately, in the same way? Answering these questions forms the core of the present work.

2.3. Sense of Being: Equivocality vs. Univocality

The manner of classifying entities proposed in the previous section gives us a variety of kinds of being, none of which are necessarily reducible to any more general notion. This manner of categorising entities has a significant implication: different entities could exist in different senses. This is the view called the *equivocality of being*. However, there is also a strong case for believing the opposite: entities exist, or they don't, and if something exists, it does in the same sense as any other existing things, regardless of the most general group into which we can categorise them. This second view is called the *univocality of being*. The debate between proponents of univocality and equivocality of being is of crucial importance to this enquiry because our theories about the structure of the world do ultimately depend on them (especially if the structure of the world is determined by its ontological characteristics). This is perhaps the reason behind the resurgence of this debate in the last two decades: it forms the core of our meta-metaphysical theories, and any philosopher of fundamentality must clarify their position on this debate. The Quinean hegemony in analytic metaphysics is so strong that most philosophers in this tradition do not even doubt their univocalist assumptions. However, the recent development in theories of equivocality (especially the ones offered by Kris McDaniel) has opened up some space for questioning the long-held Quinean assumptions about what it is to exist. In this section, I examine each of the two views before showing the problem with the debate itself in the next chapter.

2.3.1. Equivocality of Being

Plotinus asks:

> How from a unity, such as we say the One is, anything acquired real existence, whether multiplicity or duality or number; why it did not remain by itself, but why instead such a multiplicity flowed from it – a multiplicity which, though seen among Beings, we judge appropriate to refer back to it.[49]

The puzzle for Plotinus is that if there is a unity in being (which he calls The One), why is there a multiplicity of entities in the world? Why couldn't this remain as just The One? The puzzlement persists today, and thus we could ask, "if 'being' has only one sense, then why do we need to account for all these ways in which different entities appear to be?"

The philosophers who favour *equivocality of being* question the antecedent of the question above, i.e. they do not take existence to have only one sense. This is to say that existence means different

[47] Aristotle (1984b), 1674 [*Met.* 998^{b}23].
[48] *Ibid*, 1577 [*Met.* 1059^{b}31].
[49] Plotinus (2018), 539 [V.1(10).6 3-8]

things when it is said of entities of different kinds. For instance, one might argue that when we speak of the existence of this desk and the existence of the √2, we do not speak of the same sort of existence; the former is a material entity, and the latter is a mathematical one, and as such they share very little (if anything) regarding their ontological status. Some even argue that the equivocality of being seems more common-sensical to lay people. For instance, a layperson is likely to believe that √2 and a desk do not exist in the same way.[50] This supposed 'common-sensical' or even 'intuitive' nature of the equivocality of being could also be the reason behind the overwhelming popularity of this view for the majority of the history of ontology. Many philosophers saw equivocality of being as a necessary underlying feature of categories; others saw it as theologically necessary (to differentiate between the existence of God and the creatures), and yet some others just saw it as apparent in the hierarchical structure of the world – of course, these views overlapped in many of the most significant works on the subject. But regardless of these differing views, the intuitiveness of the plurality of senses of existence was rarely questioned. This intuition was seen to be so strong (and sometimes even undeniable) that the equivocality of being remained the dominant meta-ontological view for the entirety of the history of philosophy until the 20th Century. Since the 20th Century, however, the opposite view (i.e. univocality of being) has become the (almost) unrivalled stance in the analytic tradition, while a significant number of philosophers of existential-phenomenological traditions still side with the equivocality of being.

The long history of the theoretical dominance of the equivocality of being has resulted in a variety of views which, depending on where each of the theories sits in the scale of radicalness, are sometimes incompatible with one another. Such a vast scale of views makes exposition of the equivocality of being a challenging task. So far I have tried to be in conversation with historical accounts of the issues discussed without turning the present work into a work of history of philosophy. However, It would be more difficult to maintain this approach for this particular section since theories of the equivocality of being are either historical accounts or (in cases of the theories offered by philosophers of existential-phenomenological traditions) are deeply rooted in those historical accounts. In order to stay away from slipping into debates about the history of philosophy, I will not speak of different theories in chronological order. Instead, I shall look at three general approaches to the equivocality of being, focusing briefly on the historical accounts of each approach followed by a brief critical exposition of it.

The first, and perhaps the most influential, approach to the equivocality of being is the one offered by Aristotle throughout his corpus. At different points in his *Metaphysics*, as well as his *Categories* and *Topics*, Aristotle states that "there are several senses in which a thing may be said to be."[51] This, however, does not entail a simple issue of homonymy, because all the different senses of being are connected to a 'central sense of being.' This is why Aristotle says that being has a focal meaning (πρὸσ ἓν/*pros hen*).[52] Something has focal meaning just in case it has several senses which are all understood [or, rather, explained] in terms of one core sense.[53] Aristotle's own example is 'healthiness;' an athlete is said to be healthy, and 'kale' is also said to be healthy. However, healthiness for an athlete is different than the one associated with kale or the one related to one's behaviour when choosing to eat kale. The athlete is healthy in a bodily sense such that he is physiologically doing well, whereas kale is healthy in the sense that it has a nutritional value which

[50] McDaniel (2017), 11.
[51] Aristotle (1984b), 1584 [*Met.* 1003ª33].
[52] The term 'focal meaning' was coined by G. E. L. Owen, translating and interpreting Aristotle's πρὸσ ἓν in his paper 'Logic and Metaphysics in Some Earlier Works of Aristotle' (1960).
[53] *Ibid.* [*Met.* 1003ª34]

has a positive effect on human health. Now an athlete and kale are both said to be healthy in virtue of being connected to a core sense of healthiness. This core notion is, at least in this case, the most general sense of the word – one which describes the state of being physiologically well (of course we use 'healthiness' for things that are not necessarily 'bodily' but that are not the case for Aristotle).[54] *Being*, Aristotle believes, is the same: my cat, Baudolino, exists and does 'grey-ness.' Other than these, Aristotle takes quantities such as 'being 4 kilograms' to exist, as well as 'sitting on a branch.' For Aristotle, these 'entities' exist in different senses ('grey-ness' exists in the *qualitative* sense whereas 'sitting on a branch' exists in the *positional* sense). But all such senses are connected, or derived from, a core sense of being. This focal meaning for 'being' is the substantial sense of existence, and it is in connection to this sense that the other senses of being are understood. Baudolino himself (whatever that might be) exists in this sense. So, for Aristotle categories imply genuine ontological status.

One criticism of Aristotle's view is that his view is not at all one of equivocality of being, but the equivocality of ways of being. This is to say that there is only one sense of being and that is the one enjoyed by substances and all the other senses Aristotle speaks of are just senses of ways in which something appears to be. For instance, Baudolino exists in the only sense of existence and his 'sitting on a branch' or 'being 4 kilograms' are not at all independent senses of existence but just ways in which something happens to be. We will see momentarily how this criticism was used in later periods but for now, it is important to show the problem with the criticism itself. Understanding Aristotle's theory of equivocality of being as being about ways in which things appear is entirely misguided. For him to be ''qualitative' is a genuinely different sense of existence not only from other non-substantial senses of existence but also from the sense in which substances exist (even though without substances we have no understanding of qualities). It is true that 'greyness is a way in which a substance could appear, but greyness itself exists and its existence is genuinely different from the existence of substances. Greyness exists in the qualitative sense. Not all of the Aristotelian categories seem to us to be representing genuine differences, but at the bottom level, The Philosopher was trying to at least identify the ontological difference between substances and properties (and perhaps the difference between concrete and abstract entities) in his theory of equivocality of being.

But if that is the case (that Aristotle believes in genuine ontological differences between even non-substantial and the substantial senses of being) then why does he need a focal point? Doesn't a focal point for 'being' effectively make the derivative points secondary or even redundant? I will extensively respond to similar criticism in the next chapter (§3.1) but in connection to Aristotle's view about the equivocality of being it is important to understand that he evokes the notion of 'focal meaning' in relation to being, in order to justify the metaphysical enquiry: if being has different senses such that each sense is entirely independent of all other senses (i.e. there is no core meaning that somewhat connects them all) then metaphysics, as "the study of being in so far as it is," becomes effectively pointless. That is because the independent senses of being would require disciplines such as one that studies being 'in so far as it is quantified,' and another would study being 'in so far as it is located,' and so forth.[55] The focal meaning, for Aristotle, makes the subject of metaphysics as the general study of being in a purely ontological manner possible.

The Aristotelian notion of focal meaning has gone through two millennia of evolution and still maintains its attractive characteristics. The Peripatetic philosophers of the Islamic world, as well as their Scholastic inheritors, passed these views down even to our time. The attraction of Aristotelian

[54] Aristotle (1984b), 1584. [*Met.* 1003ª35-37]
[55] Barnes (1995b), 76-7. See also Owen (1960: 168-9 & 189)

equivocality of being does not appear to be the relation between non-substantial categories and substances in particular – that aspect was exhausted not long after Aristotle's death. Instead, it is the principle of the focal meaning of being that is still interesting: the assumption that there are different kinds or ways of being which are all connected to a central sense. Thomas Aquinas speaks of the analogy of being based exactly on such understanding when he says God exists differently than creatures but we understand the existence of God analogously, as compared to our own existence.[56] In a more recent case, Martin Heidegger connects this thought with our everyday experiences of reality when he speaks of *Existenz* as being of the conscious entities [*viz.* Dasein],[57] *subsistence* as being of abstract entities,[58] *extantness* as the kind of being enjoyed by non-conscious non-living spatiotemporal objects[59] and so forth. But we know all these are ways of being, in a sense comparable to one another, because there is a general concept of being that could connect all these notions, however vaguely.[60] But there remains a question that what makes entities that are said to exist in different senses different: what makes substances and entities of non-substantial categories ontologically different, or what is the difference between 'the existence' of God and 'the existence' of creatures for a Thomist.

Perhaps it is to answer such a question that Avicenna speaks of *modes of being* as the ground for the equivocality of being – which is the second approach to the equivocality of being that I shall examine. Avicenna, largely an Aristotelian philosopher, believes that Aristotle's view on the equivocality of being is at best wrongly formulated (at worst, entirely wrong). Here, in Avicenna's criticism of the Aristotelian view on the equivocality of being, the notion of *essence* is central. Essence, Avicenna and other Peripatetic philosophers believe, is the quiddity, or what-ness, of something – it is the answer to the 'what is' question. As such, the essence of something is the definition of that thing; hence, using the Aristotle-Porphyrian triadic terms of definition, the essence of any member of a species is best understood as the combination of the genus and the differentia for that species. 'Human,' for instance, is defined as a 'rational animal;' then, rationality and animal-ness are essential features for 'being human.' It is important to note that according to this view entities have *essential properties*,[61] not 'essences.' The essential properties necessitate something's quiddity. So, for Avicenna essential properties have modal values in relation to their bearers such that if a property is essential to something that thing necessarily bears that property.

Necessity^{Avicenna} An object *a* necessarily bears the property *F* iff *F* is an essential property of *a*.[62]

Avicenna understands Aristotle's theory of equivocality of being to be largely representing the essential properties of entities. For Aristotle, the sense in which Baudolino the cat (a substance) exists is different from the sense in which his weight of 4 kilograms exists and both these are different from the sense in which him sitting on a branch exists. These differences, as Avicenna

[56] Aquinas (1993), 224-6 [*Summa Theologica*: 1a.13.6]; for an informative discussion of Aquinas' view on the Analogy of Being see McInerny (1996).
[57] Heidegger (1962), 67.
[58] *Ibid*, 258.
[59] *Ibid,* 121.
[60] Heidegger (1984), 51.
[61] Avicenna does not make a point of this himself. In fact, the notion of 'property' was not fully developed at his time so he simply speaks of 'objects having essence' while he means 'objects bearing essential properties.'
[62] Booth (2017), 102.

notes, are determined by essential features of entities: the essential features of substances are different than the essential features of qualitative properties, and they both bear different essential features than the ones temporal attributes bear. This is seen even more clearly in the Heideggerian view which is also largely Aristotelian in character: conscious beings bear different properties than non-organic material objects, and they both bear different properties than the ones abstract objects bear. But bearing different essential properties should not have anything to do with the very fact of existence. That is simply because existence is not the product of essence. In fact, for Avicenna, the essentiality of a property to something does not even testify to the existence of that thing. He writes:

> It is evident that each entity has a particular reality that is its quiddity. And it is known to us that the particular reality of each entity is other than its existence which corresponds to the affirmation of its externality.[63]

The above expression is quite important in understanding Avicenna's criticism of Aristotle, becoming even more apparent further in the same text where he elaborates on the above passage by saying: 'being,' at its core, is nothing but what we affirm in our propositions, meaning that when we say *'x* is such and such' we are affirming the existence of *x* with the word 'is' and what comes after 'is' does not add anything to the existence of *x*. When we say 'human is a rational animal' 'rational-animal'-ness has nothing to do with the existence of humans. So, to take the essential properties of something as that which determines the sense of their existence is a mistake. Baudolino exists in just the same way as 'greyness' exists because the difference between these two is essential, not existential.

As some scholars have suggested Avicenna's response to the Aristotelian theory of equivocality of being shows a strong tendency towards a univocalist view of existence.[64] But there is a range of textual evidence that demonstrates a deeply embedded equivocalist view in Avicenna's ontological theory. As we shall see in more detail in Chapter 3 Avicenna's equivocality of being is motivated by differences in 'worth' (or as I shall call it 'intensity') of being rather than differences in the nature of being.[65] Such differences are entirely modal for Avicenna. So, necessity and contingency are very important in determining the ontological differences between entities. Let us call these different ontological statuses 'modes of being.' Most entities which surround us belong to the mode of *contingent existence* – Avicenna calls this mode 'necessary due to another' (*wajib al-wojood bil-qair*).[66] This desk in front of me exists but could have easily not existed, and it was necessitated when it was actualised (by its multiple causes).[67] But, like most other Aristotelians, Avicenna must have uncaused entities in his ontological systems in order to avoid regress and therefore he introduces the mode of being called 'necessary in itself' (*wajib al-wojood bi-zzat*).[68] If an entity is necessary in itself it must exist in all cases (meaning it cannot not exist). Any contingently existing entity is ultimately caused by an entity that exists necessarily in itself (so there is no regress of ontological dependence), but those which necessarily exist in themselves need no entity to depend on because they never came into being. But what about the entities which could exist but don't? These are the possible

[63] Avicenna (2009), 25; I.5.10 (my translation)
[64] See, for instance, Menn (2013) or Druart (2014).
[65] Bertolacci (2011), 43-4.
[66] Avicenna (2009), 32-3; I.6.8.
[67] The necessity of actualised contingent beings, taken independently of the condition 'through another,' is reminiscent of the *Converse Barcan Formula*: if it is necessary that everything is *F*, then everything is necessarily *F* ($\Box\forall xF \rightarrow \forall x\Box F$). See Barcan (1946).
[68] Avicenna (2009) 32; I.6.7.

entities which Avicenna divides into two modes: those which are possible due to another (*mumkin al-wojood bil-qair)* and those which are possible in themselves (*mumkin al-wojood bi-zzat*). The former mode is what we can call 'potentialities' some of which become 'necessary due to another' when they are actualised. The entities of the latter group are subject to long debate (some believe there is no instance of these at all), but they could be understood as *non-actualisable possibilities*.

Regardless of whether we agree with Avicenna's theologically motivated ontology, there are some theoretical merits to his view that remain significant to contemporary views about existence. Avicenna says the existence of things differ due to the differences in their modal status. A necessary being is ontologically different (Avicenna implies that it is 'worth more') than a merely possible entity. But what remains puzzling is what "the difference in existence" means. After decades of metaphysical obsession with the notion of modality, we probably understand Avicenna's claim better than ever that there is a genuine difference between necessary and contingent entities (propositions, facts, objects, etc.), but that, at least for us, does not immediately translate into an equivocalist view about existence. Avicenna is certainly successful in showing the problem with Aristotle's view (that Aristotle only points at the differences in essence rather than differences in being) but he might be making the same mistake by taking modal status to entail equivocality of being. The necessity of the existence of a necessary entity is a feature of its existence not the entirety of its existence. If something *a* exists necessarily and something *b* exists contingently, they both 'exist' but their existences are conditioned by necessity or contingency. But this wording that 'existence is conditioned by modal status' could be in favour of the Avicennan view, in that it is not the entity that is conditioned by modal status but its existence. If modal statuses are features of existence rather than entities that would entail differences in being.

Although Avicenna's criticism of the Aristotelian take on the equivocality of being is strong and difficult to explain away, most theories of the equivocality of being are built around the idea of focal meaning. But the later theories of equivocality of being were rarely based on the non-substantial properties [i.e. the nine categories of Aristotle] to avoid problems such as the ones raised by Avicenna. As a result in many of the later theories the idea that there are many senses of being connected to a central one was maintained, but these senses were considered to refer to classes of entities rather than features one entity could have. They are similar, however, to Aristotle's view in one important respect and that is the inherent connection between the senses of being and ontological categories. Aristotle's equivocality of being is motivated by his ten categories and our issues with his equivocality of being are in fact due to our disagreements with his highly arbitrary list of categories. The later models of ontological categorisation were more convincing in this respect and as a result, they made more plausible cases for theories of equivocality of being. I shall call this approach which appeals to classes of entities to explain their ontological differences the approach from 'kinds of being.' Kinds of being dominated the history of philosophy more than any of the other ontological views. From the Neoplatonists to the Islamic and Scholastic philosophers to the post-enlightenment philosophies of the 19th and 20th Centuries one could see that most ontologists found this view most agreeable. Hermann Lotze for instance writes:

> "...[i]t shows that when we call anything Real, we mean always to affirm it, though in different senses according to the different forms which it assumes, but one or other of which it must necessarily assume, and of which no one is reducible to or contained in the other. For we never can get an Event out of simple Being, the reality which belongs to Things, namely Being or Existence, never belongs to Events - they do not exist but occur; again a Proposition neither exists like things nor occurs like events; that its meaning even obtains like a relation, can only be said if the things exist of which it

> predicates a relation; in itself, apart from all "applications which may be made of it, the reality of a proposition means that it holds or is valid and that its opposite does not hold."[69]

This tendency could also be seen to have been taken as a core element of the 20th Century emergentism, which took what there is to be parts of a hierarchical system such that one kind emerges from another. This emergentist view might not be automatically understood as a theory of equivocality of being, but a closer look at C. Lloyd's Morgan *Emergent Evolution* (in which he classifies all that there is in three interrelated layers of 'matter,' 'life,' and 'mind') shows how emergentism is also a descendant of the theories of the equivocality of being from this kind-of-being standpoint.[70] And even later, at around the mid-20th Century, Gilbert Ryle defends a version of this approach to the equivocality of being when he writes:

> It is perfectly proper to say, in one logical tone of voice, that there exist minds and to say, in another logical tone of voice that there exist bodies. But these expressions do not indicate two different species of existence, for 'existence' is not a generic word like 'coloured' or 'sexed'. They indicate two different senses of 'exist', somewhat as 'rising' has different senses in 'the tide is rising', 'hopes are rising', and 'the average age of death is rising'. A man would be thought to be making a poor joke who said that three things are now rising, namely the tide, hopes and the average age of death. It would be just as good or bad a joke to say that there exist prime numbers and Wednesdays and public opinions and navies; or that there exist both minds and bodies.[71]

And finally, among the first philosophers of the analytic tradition, L. Susan Stebbing defended the equivocality of being against the early advocates of the opposing theory, particularly against G. E. Moore, by drawing a rough map of how being has many senses – or, more precisely, how different kinds of entities exist in different ways.[72] She suggests that being is first and foremost divided into two main kinds, *viz*. existence and subsistence,[73] each of which is subdivided into many kinds of being which are somewhat graded. This sense of grading, such that kinds of being stand in a higher/lower relations to one another, is a unique and interesting aspect of Stebbing's view which could not be found in, say, Lotze's or Ryle's view but has a strong precedence in Islamic and Scholastic traditions.

[69] Lotze (1884), 439.
[70] Morgan (1923), 11.
[71] Ryle (1949), 23.
[72] Stebbing (1917-18)
[73] In this, like many of her contemporaries, she was highly influenced by Meinong's *On Assumption* (published in 1910 and translated in English in 1983).

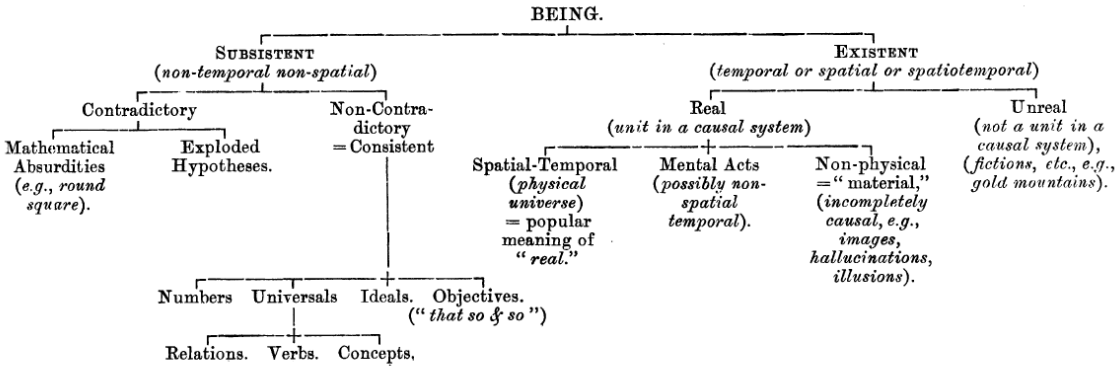

Figure no. 6[74]

Existence is a spatial and/or temporal kind of being that itself is divided into two subdivisions: real, and unreal. Unreal existence is something that is not a unit in the causal system of the world. This means that no concrete entity in the world can affect them nor can they be affected by them. An example of unreal things is fictional entities such as gold mountains or unicorns. Real existent entities are units in the causal system of the world, so they have effects on other units and may be affected by the other units. The real existence is itself divided into three subdivisions: (*a*) Non-physical entities that are incompletely causal units in the system, such as images and illusions, (*b*) mental acts that are possibly non-spatiotemporal entities of the spatiotemporal world/object, and (*c*) spatiotemporal entities of the world that are physical objects of the physical universe; this last subdivision is what most people mean when they speak of reality. Subsistence is a non-spatiotemporal kind of being that itself is divided into two subdivisions: Contradictory subsistence and non-contradictory subsistence. The contradictory subsistence is the kind of subsistence that even though is possible to speak of, it is impossible to conceive; there are two subdivisions of contradictory subsistence one is at the literary level, an example of which is 'exploded hypotheses' and the other is mathematical absurdities, such as the famous 'round square'. The non-contradictory subsistence or what Stebbing calls 'consistence' is the subsistence that can be thought of. Consistence is divided into four subdivisions: (*a*) numbers, (*b*) ideals, (*c*) objectives, and (*d*) Universals. Universals themselves have three subdivisions: Relations, verbs, and concepts.[75]

So far I explained three approaches to the equivocality of being: The Aristotelian view takes being to have many senses regarding the ways the thing that exists appears, meaning different senses of being relate to different properties of being each of which is a way of being in virtue of their connection to a focal point, i.e. the substance; I call this the theory of 'ways of being,' because it is motivated by the *ways something exists*. The Avicennan view criticises the theory of 'ways of being' for its reliance on features and properties rather than on the existence itself, claiming that if we say *x* has a certain feature, we said nothing about the very existence of *x*. Still, from this viewpoint, things exist in different senses; this difference, however, is modal – meaning, the way something exists differs from another in regards to necessity and contingency as well as possibility and impossibility; I

[74] This figure is directly taken from Stebbing (1917-18: 586)
[75] Stebbing (1978-18), 585-9

call this the theory of 'modes of being.' And finally, the most widespread theory of the equivocality of being throughout the history of philosophy is one that takes entities to exist in different ways because they belong to different ultimate types; this view, which is quite close to my take on categorisation in the previous section, should be called the 'kinds of being' theory of equivocality of being. To these, we must also add the folk metaphysical support for the equivocality of being which is, in effect, motivated by the same intuition as the one most philosophers appealed to throughout the history of philosophy, when making judgments on the senses of being.

As opposed to all of these stand those who believe that being has only one meaning.

2.3.2. Univocality of Being

Univocality of being is a view that takes existence to have only one sense. The philosophers who embrace this view do not necessarily deny the apparent plurality of the ways things are, but they believe that ultimately these ways are all ways of the same thing, namely being. It is from this viewpoint that philosophers of univocality of being, just like philosophers of the opposing camp, interpret Aristotle's *pros hen* to support their view of the world. Aristotle, we remember, says "There are many senses in which a thing may be said to 'be,' but they are related to one central point, one definite kind of thing."[76] Supporters of equivocality of being, as we saw at the beginning of the previous section, put a particular emphasis on the first part of this statement, whereas the univocalists about existence emphasise the second part and claim what Aristotle means by this maxim is that all ways of being are ways of the focal meaning of being. Equivocalist theories about being, as already mentioned, dominated most of the history of ontology but today, at least within the analytic tradition, the univocality of being has a near-absolute dominance. This is a result of what we can call Quinean hegemony. W.V.O. Quine revitalised metaphysics by advocating for a univocalist view of being,[77] and as a result, almost all metaphysical enquiries in analytic tradition assume that existence has only one sense (it is also important to note that the majority of these enquiries do not even mention their assumption; the authors assume that the reader is fully aware of their univocalist assumption). Considering the total hegemony of the Quinean view, it is beneficial to my survey of the theories of univocality of being to also start from Quine's view on the subject, who famously opens his paper "On What There Is" (1948) with this:

> A curious thing about the ontological problem is its simplicity. It can be put in three Anglo-Saxon monosyllables: "What is there?" It can be answered, moreover, in a word - "everything!" - and everyone will accept this answer as true.[78]

The underlying belief here, which becomes quite clear in the course of the article, is that there is no question about what it means for something to exist: what exists simply exists. Being has only one sense and all that exists, exists in that sense. Quine goes on to offer a singular definition for existence

[76] Aristotle (1984b), 1584 [*Met.* 1003^{a}33].

[77] By claiming he "revitalised metaphysics" I do not mean to dismiss the significance of other philosophers in shaping of the 20th and 21st centuries metaphysics. Frege, for instance, contributed as much as Quine, if not more, in shaping the univocalist approach to ontology (see, for instance, his "Dialogue with Pünjer" (1979: 53-67)). The reason I give this status to Quine is his direct influence on two generations of 20th Century analytic philosophers who found a way to write works of metaphysics again. The post-Quinean metaphysics is a well-documented strand in the history of analytic philosophy.

[78] Quine (1948), 21.

to clarify what that particular sense in which everything exists is: "To be is to be the value of a variable."[79] What he means by being the (possible) value of a variable is the same as to be quantifiable: something exists if that thing could be, in one way or another, quantified. When we say "*a* exists" we are effectively saying 'there is something *a*.' And by saying 'there is something *a*', according to Quine, we commit ourselves to the existence of *a*s, because there *is* at least one *a*. So, there are two closely related theories here upon which Quine's entire ontological view is built: theories of (i) quantification and (ii) ontological commitment. In order to, understand the Quinean view of the univocality of being we shall first understand these theories.

Let us begin with a basic explanation of first-order quantification, which is a logical/linguistic function with which we can generalise over objects – speaking of 'all cats,' 'some mammals,' 'fifteen tins of cat food,' etc. Sentences in ordinary languages contain names; when we replace one or more of these names in a sentence with some variables, we obtain an *open sentence*. So, in this sense, '*x* is a cat' is an open sentence obtained from 'Baudolino is a cat.' Open sentences, such as '*x* is a cat,' are neither true nor false (hence the name '*open* sentence'), but they are true or false *of* things.[80] So, the open sentence '*x* is a cat' is true of each cat, one of whom is Baudolino.[81] Now, if an ∃ (signifying the existential quantifier) is prefixed to an open sentence then the sentence has a truth-value (and hence not an open sentence anymore). "(∃x)x is a cat" is a closed sentence that is true in our world if "x is a cat" is true of at least one thing in our world.[82 & 83] These true sentences sit at the core of Quine's ontology. For Quine, a body of theory is a set of true sentences (or at least a set of sentences accepted as true). So, for him "Only when the truth are in place, can we raise the question of existence."[84]

It is important here to note that for Quine a theory is committed to the existence of certain things, such that the truth of the sentences (which form the body of a theory) are, in a sense, prior to the existence of things. In fact, Quine believes that this is the only way that a theory could be committed to there being a thing that makes the sentences of that theory true. It is from this viewpoint that he says 'to be is to be the value of a variable,' meaning that a sentence, the initially open sentence, is present to us and we bind our theory to that sentence by committing to the existence of certain things, reaffirming or yielding that sentence as true. Let us say, I believe that cats exist; Quine claims that the sentence 'cats exist' is a true sentence not because, or at least not necessarily because, there is a thing, a cat, that makes this sentence true, instead, there is a closed sentence (∃*x*) *x* is a cat that the body of my theory contains; my theory commits to the existence of cats. For Quine, this is the only way a theory could be committed to the existence of any object:

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[79] *Ibid*, 32.

[80] Hylton (2004), 123.

[81] As Hylton argues '*x* is a cat' is true of each cat and false of everything else (2004: 123). There is, however, an issue with this: If a sentence such as "Baudolino is a cat" is true, it is true of the world in which are such that our theory cannot commit exists.

[82] The sentence prefixed with ∃ is still "close" even in a world with no cats, but in that world, it would be a false sentence.

[83] I say *prefix* existential (or universal quantifier) to the open sentence, but it is important to note that these quantifiers go with variables, not entire open sentences. An open sentence might have more than one variable while only one might be quantified. For instance, the sentence '(∃*x*) *x* is more fundamental than *y*' is true of entities in the world for which there exists something more fundamental than it.

[84] Hylton (2004), 122

> A theory is committed to those and only those entities to which the bound variables of the theory must be capable of referring in order that the affirmations made in the theory be true.[85]

One could object to Quine's notion of ontological commitment by focusing on the assumption that this is *the only way* in which a theory is committed to the existence of things. A critic of Quine, with a slight tendency towards theories of equivocality of being, could say properties (or universals) are such that our theory cannot commit to their existence the same as it commits to the existence of material objects. When we say 'the rose is red' we have to commit to the 'existence' of 'redness' as much as committing to 'existence' of 'roses' but the ontological status of 'redness' appears to be different to the one of roses: Roses are spatiotemporal and they are part of a causal chain, whereas 'redness' meets neither of those conditions. For some philosophers, such as Meinong or Heidegger, roses exist and redness subsists.[86] Quine's slogan ("to be is to be the value of a variable") does not capture subsistence as well as existence because non-spatiotemporal entities cannot be quantified in the same manner as spatiotemporal entities – if there is such a thing as quantifying over non-spatiotemporal entities at all.

Quine fundamentally disagrees with this treatment of the ontological question. For him, the ontological question is unequivocal: what is there? The answer to this question is itself unequivocal and univocal. There is no order of existence for Quine, nor are there modes or kinds of being. There is a singular status and that is represented in the connection between quantification and ontological commitment as explained above. So, for Quine, there is one sense to being and that sense is closely related to quantifiability. But this is not the only reason behind Quine's insistence on the univocality of being. In addition to the 'quantifiability' condition for being, Quine also refuses to accept the existence of abstract entities, among which he includes properties and relations.[87] His ontology is inspired by natural sciences, meaning that he identifies and describes reality from a scientific viewpoint, not from a philosophical viewpoint that stands prior to natural sciences.[88] In short, what exists, for Quine, is the subject matter of natural sciences. His ontological theory is therefore committed (almost) only to physical objects.[89]

But if 'being' is defined as 'the value of a variable,' shouldn't we think that one's commitment to this theory is no better or worse than committing to some other theory? Didn't we say that, according to Quine, accepting the truth of a sentence is in a sense prior to the existence of the object of that sentence? If this is the case, my theory could be committed to the existence of abstract entities while Quine's theory is not committed to them; the result is an extreme version of ontological relativism that makes ontology almost meaningless. This, indeed, is the view that Rudolf Carnap held in relation to 'existence questions.' Carnap says there are two different understandings of existence, one is internal and the other external. Internal understanding of existence is relative to language frameworks, such that they specify a certain set of terms and rules according to which existence questions could be addressed. External understanding, on the other hand, is not relative to any such frame-works. For instance, in regards to whether there exist infinitely many numbers one could relativise their ontology to a certain framework (say Zermelo-Frankel set theory) and respond with a

[85] Quine (1948), 33.
[86] Meinong (1972), §11; Heidegger (1962), 258.
[87] Goodman & Quine (1947), 105; Quine later tones this down (1960: 243, n.5).
[88] Quine (1981), 21.
[89] Later in his life Quine accepted the existence of some abstract entities, particularly mathematical objects.

trivial 'yes.'[90] But Carnap finds the external approach, i.e. a theory that is not-relativised to a framework, entirely meaningless. One significant consequence of Carnap's dismissal of the external approach is that choosing between frameworks could still be classified as done externally: choosing one language over another is not itself done within a framework and therefore no meaningless judgement could exist when we commit our theory to a certain ontology.[91]

Carnap's view, potentially, makes ontological commitment somewhat arbitrary. So, Quine rejects this approach by claiming that there is no justification for Carnap's language-relativism because all our languages are aiming to achieve a correct understanding of the world; if the world that our languages try to describe, or access, is the same these languages would be comparable to one another in their success in describing or accessing that world. This is where Quine appeals to the concept of 'best theory,' which he believes to be a naturalist physicalist one. If all our knowledge has the same aim of understanding the same subject, i.e. reality, then the theory that would access, understand, and describe this subject with the highest degree of parsimony and with the most accurate empirical observation would be our best theory compared to other theories. So, Quine does agree with Carnap that ontology is a matter of language choice, but, unlike Carnap, Quine thinks that there is a correct answer when it comes to questions about the choice of language. And by accepting a theory as the best ontological theory we accept the set, or the range, of entities that that theory is committed to as only entities that exist.[92]

To claim that there is only one sense to being, Quine has his maxim ("to be is to be the value of a variable") and his notion of best theory; with the former, he says that what exists is what is quantifiable, and with the latter, he says that although the ontological commitment implies a certain degree of ontological relativism, there is always a theory that captures the reality of the world better than others and that theory is always within the confines of natural sciences; what exists is physical. None of these, however, addresses the apparent plurality of kinds or modes of being. A long history of philosophy before Quine and a good number of his contemporaries argued for the equivocality of being. Moreover, the equivocalist intuition is strong: non-philosopher folk are more likely to believe that different kinds of entities don't exist in the same sense.[93] Quine did not care that much about folk intuition, however; he saw philosophy as a sort of technical science in a broad sense and claimed that "ontological concern is not a correction of a lay practice; it is foreign to the lay culture."[94] Although he did not deny that ontology is an offshoot of what he called 'lay culture,' he still did not give any weight to the folk intuition about existence. So, considering this condescending attitude, it is not surprising that Quine dismissed the equivocalist intuition, whether it is raised from a philosophical stance [which he most probably deemed as non-scientific] or from an intuitive one. This, in my view, makes Quinean univocality of being extremely ideological at its core. But many Quinean philosophers have come to realise that the univocality of being, in this Quinean sense, must be argued for. The arguments such philosophers offered are quite diverse; some are focused on the theory of quantification, and some are built around the idea of ontological commitment and the 'best theory of the world.' Here, I present two neo-Quinean arguments for the univocality of being which are primarily focused on quantification. The first is the argument based on 'close relation to numerals' and the other is the argument based on 'unrestricted quantification.'

[90] Leitgeb & Carus (2012), §7.
[91] Carnap (2002), 51-2.
[92] For the detailed discussion of Quine's anti-relativist ontology see Hylton (2004: §III).
[93] McDaniel (2017), 11.
[94] Quine (1981), 9.

The first argument for the univocality of being – or, rather, against the equivocality of being – is built on the belief that there is a close relationship between existence and numbers. Gottlob Frege nicely explains this relationship when he writes "existence is analogous to numbers. Affirmation of existence is, in fact, nothing but denial of the number nought."[95] The idea of quantification as a cornerstone of ontology, such as that we saw above, is a direct consequence of this thought. 'There is an *a*' means that there is at least *one a*; to say that 'cats exist' means that there is *at least* one cat in the world. Now, if numbers (and consequently numerals, i.e. number-words) are univocal then existence – which corresponds directly to numbers, as seen here – must also be univocal. In Peter Van Inwagen's words "No one would be inclined to suppose that number-words like 'six' or 'forty-three' mean different things when they are used to count different sorts of object."[96] Let us say there are twenty-one blank pages left in my notebook and that François Truffaut directed twenty-one feature-length films. The number of blank pages in my notebook is, then, the same as the number of feature films Truffaut directed, although films – not film reels, videotapes or DVDs, but films themselves – have a very different nature to blank pages. It is in this sense that existence is also univocal, because when we say '*a*s exist' we are effectively saying that there is at least one *a* in the world, regardless of what kind of object *a* is.

This is a fair point which appears to be a satisfying ground for Van Inwagen to refute the equivocality of being. However, I do not see how this could cause any trouble for the proponent of equivocality of being. The equivocalists could respond to this in two ways. Firstly, it is likely for the proponent of equivocality of being to take numbers to be equivocal as well. Aristotle, who as we saw is claimed by the defenders of both views as their own, says:

> one has several meanings… (1) There is the continuous, either in general, or especially that which is continuous by nature and not by contact nor by bonds… (2) That which is a whole and has a certain shape and form is one in a still higher degree… A thing is of this sort because its movement is one and indivisible in place and time… Of this sort are the things the thought of which is one, i.e. those the thought of which is indivisible; and it is indivisible if the thing is indivisible in kind or in number. (3) In number, then, the individual is indivisible, and (4) in kind, that which in intelligibility and in knowledge is indivisible, so that that which causes substances to be one must be one in the primary sense.[97]

Franz Brentano explains the Aristotelian idea of Focal Meaning in terms of the many ways any relation could also be said to be, claiming "the identical, the different and the opposite ought to be recognised as something different for each category."[98] What Brentano implies here, as Kris McDaniel notes, is a form of identity pluralism that would also make number-words equivocal.[99] So, it is not correct to assume that everyone agrees on the univocality of numbers.

But even if we agree with Frege and Van Inwagen that numbers (more accurately, number-words) are univocal, I still do not think that the argument above would be successful in convincing a proponent of the equivocality of being to change their mind. She would easily explain this arithmetic view of existence away by saying that logical affirmation does not reflect the nature of existence; what it does, at best, is to show that all the different kinds of existence are related to a focal meaning and nothing more. Let us take an instance of a Quinean philosopher who defends the univocality of being

[95] Frege (1960), 65.
[96] Van Inwagen (2001), 17.
[97] Aristotle (1984b), 1662 [*Met.* $1052^{a}16 – 1052^{b}1$].
[98] Brentano (1975), 59-60.
[99] McDaniel (2017), 22 (n. 23).

but unlike Quine believes properties exist (there are many of them these days). Such a philosopher must hold the view that properties, such as 'furriness,' exist in just the same sense as objects, such as 'cats,' precisely because existence is closely related to numbers and numbers are univocal. But for the proponent of equivocality of being this view of existence is flawed because existing in 'cats exist' and in 'furriness exists' is only similar in the sense that corresponds to 'affirmation' and nothing else. By 'affirmation' I mean something akin to operators (such as *is*) which entail something's existence; 'there is something *a* such that *a* is a cat' affirms the existence of at least one cat but this, at least according to equivocalists, does not say anything about the nature of the cat's existence. When we say 'cats exist' we are, in effect, saying 'there is at least one cat in the world,' but in saying 'furriness exists' we cannot possibly be meaning to say 'there is at least one furriness in the world' – unless we are trying way too hard to sound funny. Instead, we translate that into quantified form by saying 'there is at least one instance of furriness of something in the world.' Thus, the existence of cats, which are material entities, is expressed differently when quantified from the existence of furriness, which is a property. This shows that the direct connection between existence and numbers (assuming there is such a connection) still does not account for different kinds, modes, or ways of being.

The second argument for the univocality of being is the argument from *unrestricted quantification*. We saw what is meant by existential and universal quantification above, now let us move on to unrestricted quantification before seeing how it could be used to justify univocality. When we utter a sentence such as '(∃*x*) *x* is a cat' we are speaking of the existence of something and saying what that thing exists – i.e. attributing a quiddity to something that there is. Quine believes that the ontological question is singular and unequivocal: 'what is there?' and he simply answers that question with a single word 'everything.' This 'everything' is a quantifier that, presumably, ranges over all that there is at once. By using an existential quantifier we imply that there is a domain over which this operator ranges, but on their own ∃ and ∀ do not signify the domain over which they're applied. If quantifiers, such as ∃ and ∀, could range over the domain that includes all that there is, meaning if there is indeed a truly unrestricted quantifier, then it is fair to conclude that being is univocal because 'exists' could be said of all that there is in the same sense – just as Quine wanted it.

But that is not as clear as Quineans assume it to be. Quinean ontological commitment, as we already saw, is a commitment of one's theory to an inventory of entities.[100] When Quine says everything exists, he is expressing the thought that all of the content of that inventory exists. The domain over which ∃ ranges includes only the entities to which a particular theory is committed. So, immediately the sense of 'everything' could be seen as to be restricted to the commitment of a theory and not 'absolutely everything.' In this sense, any supposedly unrestricted quantifier, in effect, ranges over a restricted domain, and not at all over everything. This is similar, in fact, to how we use quantifiers such as 'everything' in our everyday lives. Say Bolek and Lolek are going on a holiday, and they need to leave soon otherwise they might miss their flight. Bolek asks "are we ready to leave for the airport" to which Lolek responds "yes, I have packed *everything*." The 'everything' that Lolek refers to is not, one hopes, absolutely everything in the world. Lolek's sentence contains a quantifier that

[100] It is much more accurate to call Quine's greatest achievement in ontology 'ontic commitment' rather than 'ontological commitment' because ontology is about the nature of existence rather than a listing of existent entities; it is an ontic knowledge when we are concerned with the inventory of entities. Quine himself agrees and reforms his terminology at a certain point (1960: 120; n. 2), the rest of us, however, are still using the term 'ontological commitment' for a reason unknown to me.

ranges over 'everything that is relevant to the context of their trip.' So, although 'everything' in Lolek's sentence is an unrestricted quantifier in that it ranges over everything in relation to the context, it only ranges over a restricted domain and as such is no more than a restricted quantifier.[101] Similarly, by saying everything exists we are only saying that we are committed to the existence of all those things within the range of our quantifier. If one does not commit to the existence of abstract objects, one's quantifier does not range over abstract objects from this Quinean viewpoint (which again brings the framework of relativity back to the spotlight). We shall see in the next chapter that unrestricted quantification has a somewhat better chance if we understand existence in a pluralist manner but from this Quinean stance unrestricted quantification fails to support the univocality of being simply because any unrestricted quantifier is restricted by bounds of ontological commitment.

So, univocality of being has become a dominant view because of a 'Quinean hegemony;' Quine believes that things exist just in case our theory is committed to their existence, but he does not mean this in a standard relativist sense that if one theory is committed to the existence of Pegasus then Pegasus exist. He believes that we need to aspire towards something that he calls the 'best theory' which is a result of a parsimonious empirical approach. As a result, he appears to defend the view that something exists if something is within the inventory of that best theory. This does not automatically address the objection from equivocality of being which raises the case for the existence, and more importantly, different ontological status of kinds of entities such as properties or events. Post-Quinean philosophers defended univocality of being against these objections with different arguments, two of which I mentioned here: one was about the close relation of being and numbers and that the numbers are univocal which I found unconvincing for an equivocalist, and the other was focused on univocality of existential quantifiers which range over an unrestricted domain. This second argument could be dismissed because the idea of unrestricted quantification is itself a questionable one.

2.4. Conclusion

There are advantages and disadvantages to either of the theories discussed in this chapter. As we shall see in more detail in Chapter 3, the theory of equivocality of being deals better when it comes to the specific senses of being, whereas the theory of univocality of being is better equipped to explain the generic sense of being. This raises the question of whether there is a way in which these two views of existence could meet. A theory that explains both generic and specific senses of being is clearly superior to either of the views discussed in this chapter, but as we shall see, there could be a theory that effectively incorporates elements of both equivocality and univocality of being in such a way that (one hopes) proponents of both views could accept it. This is a view which we shall call *the theory of degrees of being*.

[101] See Williamson (2003), especially §I to §III.

3. Degrees of Being

The historically dominant views that being is either exclusively univocal or exclusively equivocal seems to be a false dichotomy, especially considering that a 'third way' has been present within the debate for some time, although generally described as only a species of one of the two main approaches whenever mentioned. This third way is the approach that I, following Kris McDaniel (2013 & 2017), call *degrees of being* – a theory that takes various categories as bearing some ontological differences to one another and that the differences between categories entail higher or lower degrees of existence. 'Degrees of being' has often been seen as a view that takes being to be equivocal and is therefore ontologically pluralist; however, I argue that in order to accept the theory of degrees of being, one does not have to commit to the equivocality of being. In this chapter, I make a case for 'degrees of being' as a theory that proponents of both univocality and equivocality of being could accept.

Let us return, once again, to Aristotle's maxim, around which the present work is formed:

> There are many senses in which a thing may be said to 'be,' but they are related to one central point, one definite kind of thing.[1]

Here, the equivocalist emphasises the first part of the statement (before the 'but') while more or less dismissing the latter part, whereas the univocalist's emphasis is on the latter part to the extent that the former becomes nothing but a dismissible appearance. What if we took Aristotle to mean what he means in its entirety, so neither part of his statement would be treated as dismissible or even prior to the other? The kind of compromise between these views is already entailed in Aristotle's *pros hen* statement, which makes it much more sensible to follow on that line; so, according to the spirit of the statement, we must be able to account for ways of being, as well as accounting for the way in which 'everything exists.' For example, we should be able to account for the ontological difference between abstract and concrete entities while still being able to utter the sentence 'both abstract and concrete objects exist.'

To do this, two options are more dominant in the current literature; one approach takes the focal meaning of being as representing 'the ultimate sense of being', and the other takes it as 'the generic sense of being.' These two approaches again coincide with univocal or equivocal senses of being. In order to move on from these, in §3.1. I will examine the way each view addresses the dilemma presented above and show that despite all their merits, there are serious shortcomings associated with both views. In §3.2, I show that our troubles here are caused by confusing sense(s) and kinds regarding the plurality of beings. If we clearly distinguish between the two, we see that there are several senses of being connected to one generic sense; this connection implies a graded spectrum of being, which I explain in detail in §3.3. The aim of this chapter is, then, to show that there could be a theory that both equivocalists and univocalists could adopt, but whether this view is intuitive or is compatible with our various first-order theories of metaphysics is subject to be addressed in the next chapter.

[1] Aristotle (1984b), 1584 [*Met.* 1003^{a}33-4]

3.1. Sense of Being: Ultimate vs. Generic

As I said in §2.3.2, the unrestricted quantifier of first-order logic is a good tool for expressing our thoughts about the existence of everything in a general manner. The domain of the variable that an unrestricted quantifier ranges over includes all there is. This is where the conflict between views from univocality and equivocality of being appears. The conflict is between the ability to speak about existence in a way that applies to all that there is and the apparent ontological differences between different kinds of entities. Univocalists believe that the unrestricted quantifier ranges over everything that there is because everything *exists ultimately in one sense*. However, if everything exists in the same sense, univocalist theory would either fail to account for inherent differences between kinds of being or must deny that such differences exist at all.

On the other hand, equivocalists believe that different ontological categories imply genuine ontological differences, i.e. entities of one kind of being exist differently from entities of other kinds. But then, the equivocalist theory would either fail to account for 'all that there is' or, else, they must deny that there is a sense in which 'everything exists.' So, the opposition between the two main meta-ontological views could be reduced to an issue about the restriction of quantifiers: Univocalists successfully account for unrestricted quantification while facing many problems in accounting for restricted quantification, while equivocalists deal with restricted quantification with ease but are in serious trouble when it comes to unrestricted quantification. In this section, I elaborate on how each camp would interpret unrestricted and restricted quantification. I take unrestricted quantifiers to range over 'everything' and restricted quantifiers to range over 'entities of each kind/category of being.

3.1.1. The Ultimate Sense of Being

For the proponents of univocality of being, the issue could, at first, look relatively easy to deal with: they appear only to need to explain *the folk intuition* away. Equivocalists often claim that it is intuitive that existence has many senses. Since there are different kinds (or modes) of being, existence has to have different senses. Most non-philosophers hold the belief that the way tables and chairs exist is somehow different from the way numbers exist.[2] This 'belief' is said to be based on our intuition. This intuition is perhaps the force behind the dominance of the equivocalist account for the majority of the history of philosophy (See §2.3.1). But univocalists explain this supposed intuition away by appealing to the *being/nature distinction*. I mentioned this distinction when discussing Avicenna's theory of modes of being (§2.3.1), but let us now elaborate on what we have said there a little further.

Entities, i.e. all that there is, both exist and have natures. When we talk about existence, we are talking about the *there-is-ness* of what there is. On the other hand, we have the *nature* of something, which is its quiddity, its *what-ness* (or, as we shall shortly see, *this-ness*).[3] The nature of an entity is what defines that entity. By defining, I mean identifying those features which, taken together, would describe an entity (or a group of entities). These features are what we shall call

[2] There is, unfortunately, no survey on this to cite here. But we can all attest to this if such a question ever came up in our conversations with friends, family, or students. McDaniel (2017) refers to the responses of his students in the first year of their BA when he wants to show this intuition.

[3] Nature has traditionally been called 'essence;' here, I shall use these terms interchangeably.

essential (or natural) features. Something's nature (or essence) is nothing but its essential features taken together. This is an entirely Aristotelian approach to 'what-ness': for him, you arrive at the essence of a species by taking genus and differentia together. These do not sound particularly 'feature-like' in the Aristotelian literature, but today, we understand it in terms of features. Take 'being a human,' which Aristotle famously defines as a 'rational animal;' human-ness is here defined to include all the human instances while excluding all other animals. The *species* is differentiated by a *differentia* from other species of the *genus*. Each of these is an essential feature of each human being. But this Aristotelian view seems too simplistic and only works for universal properties such as 'being a human' rather than particulars (qua particulars). As a particular human being, I have a nature that is not quite the same as every other human being; otherwise, all humans would have been indiscernible. So, there must be more features involved in defining a particular entity as it is than just those features which define the kind those entities belong to. Initially, we can think of these determining features as intrinsic and extrinsic essential features. But I believe some accidental features also play roles in determining something's nature. For instance, Baudolino the cat has 'being a mammal animal of a common breed of the feline family with certain fur colouration and patterns' as his intrinsic, and 'domesticity' as, perhaps, his extrinsic features. Now, 'fur colouration' or 'patterns' are not what we traditionally call 'essential features', but Baudolino's 'this-ness' (meaning particular 'what-ness') is determined by those colourations and patterns.

The proponents of 'univocality of being' could use the being/nature distinction to explain the supposed equivocalist intuition away and establish a fully univocalist view. They could do this by claiming that folk's untrained and (supposedly) uncritical mind is unable to see the distinction between being and nature, and as a result, they attribute the difference they see in nature to a difference in being.[4] But many philosophers (with their sophisticated minds!) also defend the equivocalist view of being, so the friend of univocality must do more to explain how this distinction holds when it is used to support the theory of univocality of being. One instance of such an explanation is offered by Peter Van Inwagen in his 'Modes of Being and Quantification' (2014b) in response to Bertrand Russell's equivocalist position. Russell says:

> Suppose, for instance, that I am in my room. I exist, and my room exists; but does 'in' exist? Yet obviously, the word 'in' has a meaning; it denotes a relation which holds between me and my room. This relation is something, although we cannot say that it exists *in the same sense* in which I and my room exist.[5]

Van Inwagen's response is a self-proclaimed "rant" that relations are genuinely different from rooms, but the difference is only a genuine difference in nature. He says the properties of concrete material objects (such as rooms or tables) are vastly different from the properties of relations (such as 'being in…'), and what Russell mentions as 'difference in being' is, in fact, a property that defines something's nature. So, an essential property of being a room is to be spatiotemporal, while relations lack that property. For Van Inwagen, all we need to do in determining the differences between entities is to determine them in the entities' natures. There is nothing more we can do in this regard because there is no difference between entities other than differences in their nature.[6]

The core of Van Inwagen's idea is that there is only one way of existence – i.e. the categories are not even 'apparent ways of being' but only the groupings of being based on the resemblance in their

[4] van Inwagen (2001), 15.
[5] Russell (1998), 50-1
[6] Van Inwagen (2014b), 23.

natural attributes. If something is a concrete object, the 'concreteness' of it has nothing to do with its being; the concreteness is part of its nature. Thus, according to this univocalist view, to say 'something *x* exists in a concrete way of being' is a confused version of saying '*x* exists and it is concrete.'[7] This is a straightforward and perhaps classic manner of arriving at restricted quantifiers: predicating some restricting predicates to the domain of the variable of the unrestricted quantifier. Predicates are, therefore, predicated to the domain of the variable over which an unrestricted existential (or universal) quantifier is ranging, not to the quantifiers themselves. For instance, in the example above when we say 'something exists, and it is concrete' (∃*x Cx*), we are restricting the unrestricted existential quantifier by predicating 'concreteness' to the domain of its variable. The predicate 'is concrete' is therefore predicated only to *x,* leaving 'existence' to mean ultimately the same thing when quantifying over *y,* which is 'abstract.' This, however, is only about the singularity of the meaning of the existential quantifier and says nothing about how we could get from this repeated univocality to univocally saying 'everything exists,' while some things exist and are concrete and some things exist and are abstract. Saying this should not be a problem: we could say that amongst all that there (univocally) is, there (univocally) exists at least one thing that is concrete/has concreteness and at least one other thing that is abstract/has abstractness.' So, if *C* stands for 'is concrete/has concreteness' and *A* stands for 'is abstract/has abstractness', we could put this in simple formal language:

$$\exists x\, Cx \,\&\, \exists y\, Ay$$

So, for the proponents of univocality of being, the unrestricted quantifier represents the only sense of being that could be restricted by means of some predicates, which themselves exist in that very sense – and as we have seen, such restricted quantifiers represent the *differences in nature* of entities.

But univocalists face some damning issues here. The first issue is that by taking this approach, we are not at all developing a view of 'restricted quantifiers;' but instead suggesting that 'restricted quantification' is nothing other than the unrestricted quantifiers ranging over a restricted domain. It is to say that it is not the quantifier that is restricted to quantifying over all and only concrete objects, but it is the domain of the quantification that is carved out, with a sharp edge of the predicate 'is concrete.' In a sense, this view is akin to the Euthyphro Dilemma,[8] asking an uneasy question of whether the quantifier ranges over a domain because of what the quantifier itself is (*viz.* restricted or unrestricted existential/universal quantifier) or because of what the domain of the variable is. One could say it doesn't matter on what the restriction is imposed, as long as the outcome restricts the range of quantification. But I think it does matter because it is still the unrestricted quantifier that ranges over the domain, which 'potentially could' range over a domain that includes more than what is carved out. After all, we call it a 'restricted *quantifier*,' not a 'restricted *domain of quantification*.'

The other, yet more severe problem that friends of univocality of being face is that some contradictions are embedded in their theory that categories entail plurality of natures rather than plurality of beings. One Aristotelian criticism of the contemporary views of the univocality of being is that it is impossible for something to restrict the domain of existence because a feature (read

[7] See also van Inwagen (2001: 21-2).
[8] For Plato's original proposed dilemma about God's relation to what is pious see Plato (1997:9; *Euthyphro* 10a1-3).

predicate) that restricts a domain cannot itself be an entity that belongs to that domain.[9] Nothing could be outside of the domain of all that there is, so no restricting feature could restrict the domain of existence (since all restricting features are themselves within this domain). Now, univocalists would disagree with the first premise of this objection – that restricting features that are employed to restrict the domain of unrestricted quantifier cannot be within the domain of the unrestricted quantifier; but having the restricting predicates as belonging to the domain of the unrestricted quantifier proves to be problematic. In Van Inwagen's view, the restricting predicates identify the nature of entities by restricting the domain of the unrestricted quantifier. But if these restricting predicates are themselves some sort of entities (meaning that they exist), then they must themselves have their own nature; to identify the nature of these restricting predicates, then some restricting predicates must be employed to restrict the domain of the unrestricted quantifier: the result is either a vicious circle or a vicious regress. Let us label the restricting predicates as *R*s, and the domain that the unrestricted quantifier ranges over as *D*. If *R*s exist in the same sense as what they restrict, then *R*s are in the domain *D*. Univocalists believe that to categorise something ontologically, all we need to do is to differentiate the nature of that thing from other things within the domain *D* by employing an *R* (a restricting predicate). However, if *R* itself is in *D,* then *R*s' nature needs to be differentiated from other things within *D*; therefore, some *R* must be used to differentiate *R*s from the rest of the entities in *D*.

It seems to me that there are two possibilities available to the proponents of univocality here: (*a*) the restricting predicates employed are these restricting predicates themselves (meaning *R*s restrict *D* to identify themselves), or (*b*) the restricting predicates employed are restricting predicates but of another class/kind (meaning some R_1 restricts *R*). In the case of (*a*), we are faced with a vicious circle in which the nature of something is characterised using its own nature. Considering that 'nature' is intimately related to 'definition,' we can say in the case of (*a*) the definiendum is its own definiens. In the case of (*b*), we are dealing with something akin to Bradley's regress:[10] To restrict the domain of *D* to all *R*s, we employ some new class of restricting predicates, R_1s. But R_1s themselves exist in the singular sense of existence and, therefore, are within *D,* so it should be restricted with a restricting predicate of a yet further class R_2. So, the regression continues.

3.1.2. The Generic Sense of Being

So far, we have seen what the univocalist view of unrestricted existential quantification could be. Those who defend the univocalist approach to existence take the unrestricted sense of existence to be (perhaps semantically) prior to all restricted senses, claiming that kinds of being are carved out of this ultimate sense of being by means of predication.

[9] This is a fundamental principle in the Peripatetic theory of 'exhaustive definition' that all species are defined by combining a genus with a differentia and in this combination the differentia can never itself be a species of the genus it is imposed on. However, Being is not a genus because for it to be restricted to its species there must be a differentia that is outside its domain, but no differentia could exist if it is not within the domain of being – in other words, there is no differentia that could restrict the domain of being because it is impossible to be outside the domain of being. See (Studtmann, 2021) for discussion also see §2.2 of the present work for a more detailed discussion of the Isagoge system of classification.

[10] See Perovic (2017) for Bradley's Regress.

Now, on the other side of the debate, philosophers who defend equivocality of being, from Ockham[11] to Heidegger[12] and more recently ontological pluralists such as Kris McDaniel and Jason Turner, find the idea of the *generic sense of being* more useful in accounting for unrestricted quantification than a focal meaning or an ultimate sense of being.[13] [14] Let us remain in the two-category world we've resided in so far in order to understand this latter view: some things are concrete, and some things are abstract. Friends of equivocality believe that the differences in categories entail ontological differences, meaning that if *x* belongs to the class of concrete entities, then *x* exists in a concrete way. Let us call the concrete way of existence 'existence$_c$', formalised as $\exists_c$ and $\forall_c$, and the abstract way of existence 'existence$_a$', formalised as $\exists_a$ and $\forall_a$.[15] So, tables exist$_c$, but the √2 exists$_a$. Equivocalists are clearly in a much better position than univocalists regarding ontological categories represented as restricted quantifiers such as these. Still, they have to account for the unrestricted quantification, meaning they have to be able to speak of 'everything,' or rather, they must be able to predicate something to 'all that there is'. This, however, might prove to be quite challenging for them because the unrestricted quantifier's semantic function is akin to univocality, and no equivocalist is willing to have a univocal sense of being at the core of their view.

One option is to dismiss the need for unrestricted quantification, saying that it is impossible to truly quantify over everything, and regardless of the expressions in our ordinary language that imply unrestricted quantification, we never actually talk about 'everything.' I discussed this option already when introducing the univocality of being in the previous chapter and dismissed it as a naïve approach. But regardless, equivocalists might rightly wonder why they need unrestricted quantification in the first place. Perhaps the conflict between 'accounting for everything' and 'accounting for categories' is not a real issue. If equivocalists can successfully account for entities of each category through ways or modes of being, they might get away without even mentioning 'everything.' Sadly, for equivocalists, this could not be the case, simply because at the very beginning of their theorisation, they bound themselves to such unrestricted quantification when they say, 'everything that exists either exists$_c$ or exists$_a$.'[16] The problem for equivocalists is that this 'everything' right at the beginning of their statement entails some sort of existence that is more general than either of existence$_c$ or existence$_a$, making it more or less 'the ultimate sense of being' they so vehemently reject.[17] For this reason, equivocalists must account for unrestricted quantification, which should represent a general sense of being that is true of any specific way of being. So, the *generic sense of being* is the best response that an equivocalist could come up with, and the generic sense of being relies on the notion of generic quantification.

To understand what generic quantification is, we return once again to Aristotle's *pros hen* paragraph. There, the Philosopher suggests, as we have already seen, that 'being' has many senses which are all connected to [and must be understood in terms of] a focal meaning – just like 'healthiness' which could be said about food, people, body parts, etc. and has a focal meaning in relation to which all

[11] Normore, 2012: 81
[12] For example, Heidegger (1984: 151)
[13] See McDaniel (2017: 14-27) for a discussion of the 'generic sense of being'.
[14] Some include Aristotle in this list. See Galluzzo (2014) for a discussion. Loux (2012) is more sceptical about including Aristotle among the proponents of 'the generic sense of being'.
[15] As mentioned in the previous chapter, following Alexius Meinong (1972: §11), other philosophers such as Russell (1998), Stebbing (1917-8), and Heidegger (1962) call the abstract way of existence 'subsistence.' Here I prefer existence to show the connection to the generic sense of being.
[16] Merricks (2019), 594.
[17] Merricks (2001), 169.

those other attributes find their meanings. Aristotle believes that the focal meaning of something is the primary meaning of that thing. In the case of 'healthiness,' Aristotle says, all that is healthy is related to 'a flourishing body of an organism,' so food is healthy in the sense that it contributes to the production of health while a body part is healthy when it functions perfectly in relation to the rest of the body of that organism.[18] When it comes to being, all different senses of being are connected and should be understood in terms of substance because some things exist in a substantial sense, but others exist as qualities of substances; some as productive or generative of substances, and yet others as relative to substances, etc.[19]

As I argued in the previous chapter, Aristotle's explanation of the ways of being is not a good defence of the equivocality of being because he offers only one sense of existence, and the rest are nothing but the attributes of that sense. This shortcoming is caused by confusing the substance/property distinction with different senses of being. Regardless, another way of explaining the relation between the different meanings of a notion and their supposedly focal meaning is to say what we take to be a focal meaning is instead 'a generic meaning.'[20] To use Aristotle's own example, healthiness could have a generic meaning: the predicate 'is healthy' could be predicated to both kale and Steven Gerard, and as such, it could be understood to be 'univocal' in this way. But the fact of the matter is that 'the particular way' in which kale is healthy is different from the particular way in which Steven Gerard is healthy. As McDaniel says, each is "healthy *simpliciter* in virtue of being healthy in the way that is appropriate for the kind of entity."[21] The way Steven Gerard is healthy is not the same as the way kale is healthy, but they are both healthy in a generic sense of the word. So, here we are not dealing with one particular way of healthiness that all other ways of being are connected to; instead, we are concerned with one' umbrella term' for healthiness that covers all the particular ways in which things are said to be healthy. The specific meanings are not derived from the generic sense. They instead offer a ground for it. 'Being' could also be understood to have a generic sense.[22]

The generic sense of being, for equivocalists, is represented by the unrestricted quantifier of first-order logic. The domain of *x* over which (∃*x*) or (∀*x*) range is 'everything' that 'generically exists.' The generic sense of being is different from the 'ultimate sense of being' in that it is not a focal meaning of anything – not a way of being in connection to which all other ways of being are understood. That is, the generic sense of being is not semantically prior to special senses of being. In this view, restricted quantification, which represents special ways of being, is not the product of predicating restricting predicates to the unrestricted quantifier; it is, instead, represented by quantifiers that are themselves semantically restricted. In a way, in the case of 'generic sense of being', restriction occurs in the quantifier, whereas in the case of 'ultimate sense of being,' as we have seen, the restriction is predicated on the domain of the variable. For example, according to the generic sense of being, the way of being enjoyed by concrete objects is represented with a restricted quantifier expressed as $\exists_c$, whereas in the view that unrestricted quantifiers represent the ultimate sense of being, the difference between kinds of entities is expressed by restricting the unrestricted quantifier, ∃, by predicating concreteness to the domain of its variable ('$\exists x\ Cx$').

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[18] Aristotle (1984b), 1584 [*Met.* 1003^a35-1003^b5].

[19] *Ibid.* [*Met.* 1003^b5-1003^b11]. For a thorough discussion see Owen (1986).

[20] It is important here to distinguish between 'generic' as related to 'genus' and generic as related to general sense. I mean the latter sense of the word when I speak of generic meaning.

[21] McDaniel (2017), 16.

[22] Franz Brentano believes that Aristotle also takes being to have not only 'focal meaning' but 'generic meaning' as well. He explains the generic meaning of terms and attributes it to Aristotle in (Brentano, 1975: 65).

So, the 'generic sense of being' turns the table on semantic priority. If, in the Aristotelian *pros hen,* being is semantically prior in the sense that all other ways of being are understood in terms of the focal meaning of being, then the generic sense of being is semantically posterior, meaning that it could only be understood in terms of different specific senses of being. However, we must explain how to understand the generic sense of being in terms of the specific senses of being; after all, unrestricted quantifiers have almost always been taken to be semantically prior to restricted quantifiers. One way to think of the semantic priority of specific senses of being is to take the generic sense of being as the exclusive disjunction of all the different specific senses of being. The result is easy to grasp: when we say something generically exists, we are saying nothing but "everything that generically exists, either $exists_c$ or $exists_a$" and that "nothing both $exists_c$ and $exists_a$." This conception of the generic sense of being is the most widely discussed or critically implied version, either embraced by the likes of Jason Turner (2010, 2012), Kris McDaniel (2009, 2010, 2017),[23] Byron Simmons (2022), or disputed as in Peter Van Inwagen (2014) and Trenton Merricks (2019). This is indeed an appealing reading of the generic sense of being, but it could bring about some problems, especially for the purposes of this thesis. For one thing, this version requires the semantic priority of the specific senses of being to result in some sort of metaphysical priority as well. If the generic sense of being is nothing over and above an exclusive disjunction of the specific senses of being, then the generic sense of being depends on specific senses of being; this, as discussed in §1.2, is a bottom-line definition of relations of fundamentality. So, if we take this path, we must accept that the semantic priority of the specific senses of being to the generic sense of being entails that the specific senses of being are more fundamental than the generic sense of being.[24]

So, although the 'generic sense of being' appears to do slightly better than the 'ultimate sense of being' in accounting for existence in both general and particular senses, it still faces its own problems. I believe the 'generic sense of being' is better defended when not discussed from the angle of quantificational theory; so in order to see how a theory of plurality of ways of being could be in accord with the generic sense of being, let us step away from theories of quantification, at least momentarily.

3.2. Avoiding Sense-Kind Confusion

We have already noted in the previous chapter that there is a stark difference between kinds and senses of being, so much so that I treated theories of 'senses of being' separately from theories of 'kinds of being.' Many of the philosophers who discussed these theories did not, however, focus much on this difference and as such, they often shift between 'sense-talk' and 'kind-talk' quite arbitrarily. This is the reason I listed philosophers of sense of being (such as Aristotle or Aquinas) also as philosophers of kinds of being. In fact, the elements of both views in Aristotle and Aquinas' works are so abundant that whether either of them should be considered as a philosopher of 'sense of being' or 'kind of being' is perhaps a matter of scholarship beyond the scope of the present work (and, indeed, my expertise). It is clear, however, that at least Aristotle was aware of some of the

[23] Although McDaniel goes on to embrace a version that he thinks is Heideggerian, which I also find more appealing as seen in this very section.

[24] I have no intention to make a statement such as this because, as mentioned previously, the entire purpose of defending the theory of degrees of being is to provide some theoretical ground for the hierarchical structure of reality [which has the notion of fundamentality written all over it]. Assuming the fundamentality of one element of my argument in relation to another element constitutes circular reasoning if I am to use this argument to justify the fundamentality relations in the structure of the world.

issues raised by sense-kind confusion since he notes that it is possible for something, say a quality, to have an indefinitely large number of kinds yet finds it absurd for any word to have indefinitely many numbers of senses.[25] For instance, there are indefinitely many kinds of deliciousness (or things could be said to be delicious in an indefinitely large number of ways), but according to Aristotle, it is absurd to say that 'deliciousness' has an indefinitely large number of senses. With this in mind, one could argue that when Aristotle speaks of 'many senses of being,' he is somewhat aware of the kind-sense distinction, and he is, in this instance, speaking of nothing but 'senses of being.' I, following many distinguished contemporary scholars of Aristotle, find such claims unconvincing because, as it appears, Aristotle's description of these supposed 'senses of being' is rarely about 'sense;' instead, it is often, if not always, about the manifestations of being, which comes closest to what we might call 'kind.'[26]

Aristotle's philosophy, per se, is not our concern here, but as we have seen so far, we are dealing with the same issues he did. So far, I was bound to use the terms' equivocality' and 'univocality' of being; the former indicates 'having many senses/meanings' and the latter 'having one sense/meaning' for being. But the issue is that at many points, the discussion is not necessarily about senses but about kinds of being;[27] such confusion, what Gareth Matthews (1972) calls *sense-kind confusion*, can have dire effects on our best theory of being. Let us consider an example to see how troublesome this could turn out to be; take these two statements:

(1) There are two kinds of nails: the ones that cover the upper surface of the tip of fingers and toes in primates and those made of metal with one pointy end and one flat end.
(2) There are two senses of the word 'nail': one sense of 'nail' is 'something covering the upper surface of the tip of fingers and toes in primates', and another is 'the metal objects with one pointy end and one flat end.'

So far, there aren't any significant issues: kind and sense closely correspond in (1) and (2). Now, considering the senses of the word 'nail' given in (2), one could state:

(1*) There are two kinds of coverage of the upper surface of the tip of fingers and toes in primates: those that cover the upper surface of the tip of the fingers and toes of primates and those that are made of metal and have one pointy end and one flat end.

(1**) There are two kinds of metal objects with one pointy end and one flat end: those that cover the upper surface of the tip of the fingers and toes of primates and those that are made of metal and have one pointy end and one flat end.

Both (1*) and (1**) are false because of the inclusion of the sense of the kind of nail that does not entail that particular kind. If we confuse the kind of something with the sense of the word for that thing, ambiguities of this sort would be inevitable. As McDaniel says, (1) and (2) are not 'jointly assertible.'[28]

Similarly, one cannot take being to have many kinds and many senses corresponding to one another because if one does, the same issue will arise:

[25] Aristotle (1984b), 1589 [*Met.* 1006^{a}34-^{b}11].
[26] For a detailed discussion of Aristotle's take on the relation between sense and kind see Charlton (1970: 98 – 104); also see Loux (2012: §III).
[27] See the notice at the end of this section for the change of terminology.
[28] McDaniel (2017), 21.

(3) There are two kinds of entities: entities that exist in a concrete way and entities that exist (rather persist) in an abstract way.
(4) There are two senses of the word being: one sense of 'being' is 'to exist in a concrete way', and another sense of being is 'to exist in an abstract way.'

If (4) is true, then in (3), we have an ambiguity of the kind mentioned above:

(3*) There are two kinds of things that exist in a concrete way: ones that exist in a concrete way and ones that exist in an abstract way.

(3**) There are two kinds of things that exist in an abstract way: ones that exist in a concrete way and ones that exist in an abstract way.

Absurd indeed! The problem above, however, could be solved if the number of senses and kinds are not exactly the same – if there could be a sense of being that has no corresponding 'kind.' That sense of being is what we earlier called the generic sense of being. So, in a world that has two kinds of being, concrete and abstract, there are three senses of being: 'to exist concretely,' 'to exist abstractly,' and 'to exist generically.' The third sense does not pick any kind of being; instead, it is a sense that picks out all the similarities between the specific ways so we can 'generalise' about them based on those similarities. It is still an umbrella term, but it is not 'something' formed (perhaps conjunctively) of those semantically prior specific senses of being; it is instead a generic tool that comes with any disjunction of kinds. So, at any point where there are kinds of something, there is a generic sense for all those kinds. The supporter of equivocality of being must take such a stance to avoid sense-kind confusion.

Some might find a 'sense' that corresponds with no 'kind' somewhat problematic. We can grasp what the generic sense of being denotes, but generic/general being is not something we could precisely define (or put a finger on). The very same issue had troubled many a peripatetic philosopher: they found 'existence' undefinable because of its generality and yet found themselves in a position where they were required to have at least some explanation about what existence is.[29] The benefit of univocality of being is that one could appeal to some sort of primitiveness of existence (like when Quine answers the ontological question by 'everything'), and the benefit of having specific senses of being, without the generic sense is that they are definable. It is not surprising, then, to find that it was often equivocalists who had a general sense of being at their disposal who struggled to define 'existence.' Such a struggle comes from sense-kind confusion: if we take the generic sense of being as a disjunctive umbrella term rather than a notion formed by specific senses, we could settle on something much less controversial. Martin Heidegger is a rare example of a philosopher whose approach makes a more or less clear distinction between senses and kinds of being, before explaining what he means by being. Heidegger takes being to have many ways of how different entities 'specifically are,' but he also recognises a generic sense of being that is unrelated to any of the ways of being he speaks of. It is a sense of being that overarches all that there is but does not denote a sort of existence enjoyed exclusively by any particular kind of entities. Despite all the ambiguities in Heidegger's philosophy, this specific point could be found clearly in his writings. Early on in his *Being and Time*, for instance, he writes:

[29] See, for instance, Chapter 5 of Book I in Avicenna's *Metaphysics of Healing* [الهيات شفا] (2009: 23-9).

> But there are many things which we designate as 'being' ["seined"], and we do so in various senses. Everything we talk about, everything we have in view, everything towards which we comport ourselves any way, is being.[30]

Such 'sense' could not correspond to a kind because nothing exists in such a general way. But it is also important to realise that specific senses of being do not form this generic sense of being. The generic sense of being is not such that we conceptualise it by addition or conjunction of different specific senses. If it was, then it could be a different sense according to different theories of equivocality. Say Aristotle has ten ways of being in his theory, but Heidegger has five;[31] if the generic sense of being was formed by the specific senses each philosopher takes there to be, then the generic sense of being for Aristotle and Heidegger could be different.

Moreover, if the generic sense of being is formed by specific senses of being, our conception of the generic sense of being could change over time when we encounter a way of being that we were unaware of in the past. Both these arguments are admittedly weak because the manner in which the generic sense of being is formed might not be building-like. It could be said that the generic sense of being is formed by 'generalisation': we generalise a concept based on what we have, so the result is *formed* by the elements we generalised over. I still disagree that this umbrella term, this generic sense of being, is formed by the specific senses, for I don't think we arrive at the generic sense through generalisation either. That is because I take the generic sense of being to be co-primitive with specific senses of being. Neither the specific sense nor the generic sense of being is semantically reliant on the other, but each denotes what it does only if the other one is present. We cannot conceive of any specific sense of being, such as 'existing concretely,' without having a generic sense of being, and yet, the generic sense of being could not be conceived in isolation without having a grasp of what it is to exist in this or that specific sense. This is a symmetric relation, and as we have seen in Chapter One, neither could be considered metaphysically prior to the other.[32]

The generic sense of being so conceived is a useful instrument. It is not a sense corresponding to something 'real' (I will speak about reality in relation to being in the next section), nor is it summoned to understand being in a general way, but it is conceived when the specific senses are conceived, overarching all of them. As such, the generic sense of being is the perfect sense for an analogical approach in an Avicennan sense that I defended above, not in the traditional Medieval (Thomist) sense. The generic sense of being is one that exists if the specific senses exist, but the specific senses of being are understood to all be *ways of* the same thing, i.e. being, in virtue of being comparable to the generic sense. So, it is possible to have a generic sense of being without having to commit to principles of fundamentality.

In this chapter, I kept away from the discourse of fundamentality until this point, but in the manner presented here, it seems pertinent to note that the generic sense of being has somewhat less *ontological significance* than the specific senses of being. After all, the specific senses of being

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[30] Heidegger (1962), 26.

[31] we might say that there are more ways of being in Heidegger's theory but let us say five for the sake of argument

[32] A sidenote: the generic sense of being and specific senses of being are co-primitive as I explained and therefore neither is more fundamental than the other. But the same question could arise about the relation between 'kind' and 'sense' of being now that we are aiming to avoid confusing them. At present, I intend to avoid the discourse of fundamentality because, as I already mentioned, the entire reason behind this endeavour is to provide justification for that discourse. Arguing for the fundamentality of one element of this justification over another would grossly defeat the purpose of the present work.

correspond to some kinds of being that are more graspable or definable in virtue of the exemplification of the entities which enjoy those kinds. I assume that folks have an intuitive understanding of the ontological significance of entities when they say, '√2 does not exist in the same way this desk does.' So far in this thesis, I have only written about univocality and equivocality of being, focusing on the senses of being regarding the debate about whether there is one or more than one sense of being; there was even the Aristotelian compromise that there could be many that are all related to one. But the relationship between generic and specific senses sheds a new light on the conversation: where do these senses stand in relation to one another, especially if none are, at their face value, more fundamental than others? This ontological significance of different senses of being is the underlying idea/intuition in what we shall call the theory of degrees of being. The theory, I believe, could satisfy the most pressing issues in both theories of equivocality and univocality of being.

With all these in mind, let us finally get to the theory of degrees of being.

3.3. Degrees of Being

According to the theory of degrees of being, some things exist to a higher degree than others. This claim could be understood (and indeed misunderstood) in a number of ways. Initially, we were concerned with equivocality and univocality of being as determining factors in how we understand degrees of being. This is to say that there are two ways of describing degrees of being: (*a*) everything exists in one sense, but they enjoy that one sense of being in different levels of intensity, or (*b*) things exist in different senses, and these senses are representatives of different levels of intensity of existence enjoyed by entities. What is meant by 'level of intensity' will become clearer in the course of this section and remains very much dependent on whether we take being to be univocal or equivocal. If we take the univocal approach to the degrees of being, then this ontological intensity would be similar if there was only one colour, and all differentiations were shades of that colour. Some shades of, say, the colour green are darker than other shades of it, but regardless of the shades, they are all green. Similarly, we could conceive of 'being' to have only one sense, which is enjoyed by some entities to a higher or lower degree. Conversely, if we take the equivocalist approach to degrees of being, then the intensity of existence enjoyed by each entity depends on how one sense of being compares to another.

We saw in the previous section that ontological pluralism[33] is rather hopeless without committing to a generic sense of being. Similarly, in relation to degrees of being, someone with an equivocalist approach must be able to show how different senses of being compare in order to deem them higher or lower than other senses of being on the spectrum of existence. Any attempt to explain the manners of such comparison would inevitably result in some common features that make all beings exist in some similar way – at which point, the pluralist is committed to the generic sense of being. We should remember here that ontological pluralism could be committed to the generic sense of being without any worry about contradiction. That is because the pluralist is still committed to the existence of many senses alongside (and not prior to) the generic sense of being. Interestingly, this view, namely ontological pluralism with the generic sense of being, is not all that different from

[33] From here on I use 'ontological pluralism' to refer to views that take being to have different senses and/or ways and 'ontological monism' to refer to views that take being to have only one sense or way. These differ from equivocalist and univocalist views which are only about senses of being (this complete focus on senses of being is itself a reason behind the frequency of sense/kind confusion).

ontological monism when it comes to degrees of being, and that is precisely why degrees of being could be a middle ground between these opposing views. Committing to degrees of being for ontological monists would be to take 'being' to have only one sense with different levels of intensity when exemplified by various entities, while committing to the same theory for pluralists would be to take 'being' to have a variety of senses which exemplify a generic sense of 'being' with different intensities. As we shall see, the result is, to a great extent, similar.

There are various ways to conceive of the spectrum of being and its manner of grading. One way is to have existence as quantitatively determinable with degrees of being as its determinates. This way of seeing degrees of being is what I explained above through shades of colours (or perhaps it could be better understood to have 'being' similar to mass and the degrees of being as specific mass values). Another way of looking at what the spectrum of existence would look like is to have some sort of absolute or perfect point in relation to which everything else is positioned. This is to claim something to the effect of '*x* exists at least as much as *y*.' So, the exact 'amount' that *x* exists would be only determined in comparison to *y*. This second view is, in fact, not very different from the Avicennan analogical view, which I explained in the previous section: there is an absolute sense of existence in virtue of which all other senses of existence gain their status as existence. This modern reconstruction of an Avicennan view and the former view, *viz.* existence as a quantitative determinable, need not be exclusive of one another. In fact, most philosophers who commit to degrees of being use both descriptions. Others see degrees of being in simpler ways; for instance, Kris McDaniel speaks of degrees of being such that an entity *a* has *n* units of being.[34]

For an equivocalist, there are many senses of being, each corresponding to a particular kind of being. As we saw in the previous section, for these to be 'senses of *being*' in any meaningful way, there has to be a generic sense of being which does not correspond to any particular kind of being but still is a sense of being in the most general manner. However, committing to the general sense of being could effectively jeopardise the most basic assumption of equivocality of being that things exist in different senses. If there *is* a generic sense of being, why shouldn't we take this sense as the one and only sense of being? The theory of degrees of being proves to be useful here for equivocalists. The generic sense is not, in fact, 'a sense of being' such that it corresponds to the existence of particular entities. Instead, it is what we mean when encountering the resembling aspects (or features) of different senses of being. Concrete existence corresponds to kinds of entities which are concrete, and abstract existence (or subsistence) corresponds to kinds of entities which are abstract. But 'existence' does not correspond to any kind of entities. This generic sense reflects something(s) shared by concrete and abstract existences. The equivocalist can then say that the 'ontological differences' between various senses of being result from enjoying those 'resembling features' to a higher degree. We shall see in the next chapter what it could be to enjoy such features to a higher degree, but just to clarify, this could be something like '*a* is more mind-independent than *b*' or '*a* is actualised, and *b* is not.'

The univocalist, on the other hand, could also benefit from the theory of degrees of being in order to account for ontological differences while maintaining one sense of being. As we saw earlier, one of the main issues with the univocality of being is that to solve the problem of kinds of being, they appeal to nature, which does not seem to solve the problem at all. If univocalists adopt the theory of degrees of being, they can argue that there is one sense of being, but what this one sense refers to comes in degrees. These degrees could again be measured by resembling features, such as mind-

[34] McDaniel (2013a), 3 [fn. 4]. This is not a view that McDaniel favours.

independence, but this time, instead of resulting in different senses of being, they could be thought of as ontologically different due to varying degrees of being (with a singular sense) enjoyed by entities of each kind. So, concrete and abstract entities exist in the same sense, but their difference in kind is explained by, for example, concrete entities enjoying a higher degree of being (in that singular sense) than abstract entities.

The result from both views about the senses of being is more or less the same. One puts different senses of being in a spectrum of their comparable features, and the other makes the one sense of being (that is the referent of this singular sense) itself a spectrum that different kinds of entities are then subject to. So, the theory of degrees of being is (almost literally) a modus vivendi between equivocality and univocality of being. Of course, the degrees of being is still a pluralist view because it presupposes the variety of kinds of being, but that, I believe, is not a deniable feature of the world.

The essence of the theory of degrees of being that I am offering here would be equally compatible with (and fruitful for) all the models mentioned above. That is why I intend to leave these nuances aside for the time being. What matters to me is not primarily how the spectrum pans out; instead, I intend to use the existing theories of degrees of being (old and new) to determine what makes an entity enjoy a higher or lower degree of being compared to other entities. This, as I have repeatedly mentioned, will, in turn, explain (or, perhaps, justify) the hierarchical structure of the world. Heidegger follows in the footsteps of scholastic philosophers and positions beings on a spectrum determined by their relation to what he takes to enjoy a perfect existence: Dasein.[35] Kris McDaniel also gives the highest level of existence to conscious beings and mereologically simple material objects.[36] For both Heidegger and McDaniel, the meta-ontological theory of degrees of being is a foundation for their respective first-order theories of metaphysics. I believe the theory of degrees of being does not have to be bound to any particular first-order theory. As we shall see in the next chapter, it could be applied to opposing first-order views without itself being deemed contradictory.

3.4. Conclusion

In this chapter, we saw how the two major metaontological theories come short of explaining how things exist. The univocalist approach finds it hard to account for the variety of ways things exist while maintaining that there is only one sense in which things exist. The equivocalists, on the other hand, find it difficult to account for a sense of being according to which 'everything exists' without sounding univocalist. I argued that the issue for both these theories is, at the base level, caused by confusing sense(s) and kinds of being. We must differentiate between these two and then clarify the connection between sense and kind. This clarification is helpful but does not immediately result in any reconciliation between the opposing metaontological views. That is why I offered a view that I believe could be a middle ground between these opposing views: the theory of degrees of being – that entities exist differently due to the degrees of being they enjoy – both univocalists and equivocalists could adopt this view without much problem. Univocalists could say there is only one sense of being the referent of which comes in different levels of intensity corresponding with different kinds of beings. Equivocalists, on the other hand, could say that there are many senses of being, but they together form a spectrum of existing to higher or lower degrees according to their shared ontological features.

[35] Heidegger (1962), 36.
[36] McDaniel (2013a), 3.

But what do we mean by ‘level of intensity of existence? What is it for something to enjoy a higher or lower degree of being compared to something else? So far, I presented the theory of degrees of being in an entirely abstract way to emphasise its place among other meta-ontological theories. We might now need to clarify what we mean by ‘degrees of being’ by examining it as employed by some first-order theories of metaphysics.

4. Reality

In the previous two chapters, I first discussed what we mean by 'being' (or 'existence') in the existential sense and then went on to show the problems with the two prominent theories of being. I argued that most meta-ontological theories could be classified as either 'univocalist' (i.e. everything exists in one and the same sense) or 'equivocalists' (i.e. things could exist in different senses). As we have seen, there is a problem with this classification: univocality and equivocality of being have historically been taken to be identical to ontological monism and ontological pluralism, respectively. This is the reason behind many futile and seemingly never-ending feuds between the two main camps in meta-ontology. I argued in Chapter 3 that this problem results from confusing 'sense(s)' and 'kinds' of being. Thus, a good amount of our disagreements could be avoided if we clarify what we talk about when we talk about the ways things are. If a theory is committed to one sense of existence and takes that there is only one kind of being, then that theory is radically monistic. On the opposite side, if a theory is committed to many senses of existence, each corresponding to different kinds of being, then that theory would be radically pluralistic. I believe that the sensible view lies somewhere in between and that such a sensible view could potentially be acceptable to both ontological monists and ontological pluralists. I argued in favour of such a middle-ground view by showing the shortcomings of each of them when it comes to accounting for how things exist: ontological monism is well-equipped to account for existence in general but falls short in accounting for the seemingly intuitive differences in kinds, whereas ontological monism is a suitable view to account for different ways things exist but in accounting for the general sense of existence it risks sounding monistic (since such general sense could be understood as a sense that refers to how everything exists; see §3.1.2). The third option, which I defend, is a meeting point of these opposing views: things can exist in the same sense while corresponding to different kinds if the referent of that one sense comes in degrees.

But there remain many questions as to how these degrees are measured and in what way they could correspond to kinds of being. This chapter is, therefore, firstly concerned with answering such detailed questions about the theory of degrees of being. But in the course of this chapter, I also intend to connect the discussion of meta-ontology that has taken centre stage so far to our initial question about the hierarchical structure of the world. Most of the work on how these two are connected will be done in the next chapter, but here, we shall see how being relates to things.

In the first section, I shall introduce the familiar notion of *reality*. We need this notion in order to explain how we 'encounter' existence and its degrees; that is why I insist on the distinction between reality and existence. I will define reality in 'pragmatist' ways: something is real if it is mind-independent. But in order to show how reality corresponds to existence, I will develop a view of graded reality based on how much something depends on the human mind. After explaining the principles of graded reality and how it stands witness to degrees of being, I will showcase this view in relation to two separate aspects of the structure of the world. In §4.2, we shall see how the graded view of reality fares when it comes to concrete and abstract entities and what it means regarding the theory of degrees of being. In §4.3, the same test of this theory will be conducted in relation to modal notions of actuality and potentiality.

Understanding how these aspects of the world are explained in terms of reality and how reality corresponds to existence is the bedrock of my view that the hierarchical structure of the world could be justified meta-ontologically. So, this chapter should act as the link between the discussion of meta-ontology in the previous two chapters and that of metametaphysics in the next chapter (as well

as the opening chapter). I shall remind the reader (and I will do so again throughout this chapter) that the metaphysical assumptions about 'concreteness', 'abstractness', 'temporal properties', 'modality', etc., are only to showcase my metaontological theory of degrees of being and should not be taken as arguments in defence of any first-order theory of metaphysics. I only intend to show the fruitfulness of committing to a graded ontology, and I believe this could be done by assuming differing metaphysical claims. So, I ask my reader not to take my metaphysical assumptions as integral parts of the theory of degrees of being or graded view of reality.

4.1. Graded view of Reality

Degrees of being is not, by any means, the only 'graded' notion in metaphysics. It has been constantly brought up throughout the history of metaphysics, but so have *degrees of reality* or *degrees of truth*. Even our own discussion started with another graded metaphysical notion: fundamentality. It is, indeed, surprising to see how often different metaphysical spectrums are mistaken for one another. J. M. E. McTaggart does recognise such mistakes when he writes:

> It has been said that reality does admit of degrees. But this can, I think, be traced to one of two confusions, and, when these are removed, it seems clear that there are no degrees of reality… Sometimes reality has been confused with power, and a thing has been said to be more real in proportion as it exerted more power on other things. But power and reality are quite different, and a thing which exerts more power is not more real than one which exerts less… Sometimes, again, it would seem that the possibility of degrees of reality is based on the possibility of degrees of truth… If, for example, it should be truer to say that the universe was an organism than that it was an aggregate, then it is supposed that we may say that an organic universe is more real than an aggregate-universe. But this is a mistake.[1]

I disagree with McTaggart's approach because, as we shall soon see, there are arguments for degrees of reality that do not amount to anything other than reality itself, about which he, intentionally or not, says nothing. But regardless of my disagreement with him, I believe McTaggart is correct in identifying a tendency to mistake one theory of the metaphysical spectrum with another. I agree that it is a mistake to confuse power with reality, and regardless of whether there are such things as degrees of truth (McTaggart thinks there aren't), it would be a mistake to confuse truth with reality.

Similarly, it would be a mistake to confuse any of the above notions with 'being.' Unfortunately, the history of metaphysics is rife with such errors, especially with confusing reality with 'being.' For the works written before the scholastic period, such mistakes could somehow be justified as results of underdeveloped theory and/or imprecision in language. Still, such justifications could not be used in cases of more recent (even contemporary) works of philosophy. For instance, in his 'The Conception of Reality' G. E. Moore writes against F. H. Bradley's view about the unreality of time that "[t]he two expressions 'there is such a thing as so and so' and 'so and so is real' are… quite naturally used as equivalents."[2] He goes on to state that Bradley has "some highly unusual and special sense"[3] of reality at his disposal. So, Moore seems to find it unusual that someone speaks of 'reality' and not precisely speak of 'existence.'

[1] McTaggart (1921), 4-5.
[2] Moore (1918), 104.
[3] *Ibid*., 111.

So, the view that reality is the same as existence is widely accepted in contemporary metaphysics (especially among anglophone philosophers). However, there are some recent attempts to distinguish between these two notions. One such attempt could be found in Kris McDaniel's *Fragmentation of Being*, where he claims that one way of explaining degrees of being is "to take as basic some relation such as *x is at least as real as y*, and hold that something exists iff it bears that relation to something, including itself."[4] So, reality here must be different from existence if the something's existence (and the degree of that existence) is determined by holding the relation 'as real as' (or, evidently, 'more/less real than').

In this section, I will explain what I mean by reality before I argue for the distinction between reality and existence. I shall then expand on McDaniel's statement mentioned above to explain how reality is graded. The gradation of reality is then shown to be the way in which the degrees of being are understood (or, rather, encountered).

I hold a specific view of reality: something is real just in case it exists independent of the human mind. As we have seen time and again throughout this thesis, existence is not easily defined, but we could say, alongside Quine, that everything exists. We cannot say the same about reality; there are entities that exist, but we do not consider them real. Pegasus exists as a fictional character, but the reality of fictional entities is, at best, a matter of debate. Anything that is real, however, must exist, and as a result, one might take the 'existence condition' as a core element in defining reality.[5] I believe the existence condition is trivial because if I say '*x* is real,' I have already admitted the existence of *x* by predicating reality to it (or by simply using a positive form of a copulative verb in relation to it). Another aspect of determining something as real is its 'independence' from human conception. I believe this is what most philosophers who recognise the difference between existence and reality use as a defining characteristic of reality: something is real just in case it exists independent of the human mind.[6] C. S. Peirce says, for instance, "'real' is a word which I use to denote merely that which is such as it is independently of you or I or any of our community thinking it to be so."[7] So, Pegasus, one could argue, is not real because it depends on our thoughts, whereas a certain horse on a field in Kent is real because, after all, its existence has nothing to do with our perceptions or conceptions.[8] This claim should not, however, be understood as limiting reality only to physical macroscopic objects; there are strong arguments in support of the reality of, say, universals – entities which have no external attributes of their own. Peirce's clarification might help:

> …the real becomes that which is such as it is regardless of what you or I or any of our folks may think it to be. The external becomes that element which is such as it is regardless of what somebody thinks, feels, or does, whether about that external object or about anything else. Accordingly, the external is

[4] McDaniel (2013a), 3.
[5] See Miller (2019).
[6] One needs to note the difference between trivial mind-dependencies and the philosophically interesting mind-dependencies when it comes to this definition: artefacts such as tables and chairs are human-made and could never exist if there were no humans and since they are first designed in the human mind they can be thought of as mind-dependent. This kind of mind-dependency is the one that I call trivial and philosophically uninteresting – this has nothing to do with reality.
[7] Peirce (1931), 191.
[8] Of course some radical forms of idealism take the horse on that field in South East Kent to be purely mind-dependent as well but refutation of such extreme versions of idealism is not within the scope of the present work. For discussions of such views see Ewing (1957) or Guyer & Horstmann (2021).

> necessarily real, while the real may or may not be external; nor is anything absolutely external nor absolutely devoid of externality.[9]

Not everything that exists is real, and not everything that is real is external.

So, reality differs from existence, but what does it have to do with degrees of being? Degrees of being are often misrepresented as degrees of reality (or vice versa); the problem is that the difference between the two spectrums is not as straightforward as the difference between the notions of 'existence' and 'reality' themselves. There seems to be a genuine overlap between degrees of reality and degrees of being. (Here, I will use the term 'grades of reality' to minimise the confusion between the two spectrums, but in effect, what we have with reality is just another system of degrees.)

To bring the point home, let us consider the case of Plato's *theory of forms,* in which he argues that *forms* or *ideas* are more real than the perceptible objects of our everyday life.[10] As a result of confusing reality with existence, most scholars of Plato in the 20th Century were of the view that Plato's theory of form is essentially a theory of degrees of being. A good example is R.C. Cross and A.D. Woozley's commentary on *Republic,* in which they begin their work by asserting that "in what follows expressions 'exists,' [and] 'is real' occur as synonyms."[11] The reason behind this historical confusion is more linguistic than philosophical. As Gregory Vlastos notes in his 'Metaphysical Paradox' (1965; references here are to the edition reprinted in 1981), Plato has a term at his disposal that could be used for both 'existent' and 'real,'[12] but we have clearly different terms for these two concepts and don't need to succumb to that confusion. For Plato, the degrees of reality were a matter of evaluation. For him, forms had more reality than their instances, and by 'more reality' he meant something like gold purity: pure gold is 24 carats; an alloy of gold and other metals would show less caratage of gold, but it does not mean that the piece of metal with 18 carats gold is not gold;[13] it is not as pure but is still considered gold. Plato sees reality in this way: forms are most real, and everything else is less real than forms in a way that the resulting spectrum would provide something for evaluating the quiddity of something. Plato's theory becomes interestingly relevant to our endeavour here when he double uses two forms of the homonymous "εἰμί" (*eím'*; usually translated as 'to be') to describe the existence of forms: "τὸ ὄντως ὄν" (*tó óntos ón*) – what *really* is.[14] This implies an interesting dimension in Plato's use of reality: however distinct from existence, reality is an element in determining to what degree something exists. This, in a sense, is another way of looking at McDaniel's claim above that the relation 'as real as' is indicative of some degree of being rather than being identical with Degrees of Being.

If reality is understood in terms of mind-independence, then something's level of reality is determined by how mind-independent something is. Of course, determining this is, to some extent, ideological (meaning that it depends on some first-order metaphysical assumptions), but regardless of the ideologies, we can have a good enough grasp of what it means for mind-independency to

[9] Peirce (1931), 192.
[10] Plato (1997), 1201 [*Republic*: 597a].
[11] Cross & Woozley (1964), 145.
[12] It is important to note that Plato was aware of the philosophical significance of the homonymy of τὸ ὄν and the possible confusion caused by it. Vlastos (1981: 47-8).
[13] Vlastos (1981), 48-50.
[14] Plato (1997), 1201 [*Republic*: 597a2]. Vlastos interprets this as 'what is really real' to support his view that Plato is not at all concerned with an ontological question. I find the more widely accepted interpretation [*viz.* 'what really is'] more compelling.

come in degrees. Say, someone (call them Jo) takes any medium-sized dry goods to exist independently of the human mind; Jo takes material objects to be fully real because they need no mind to perceive or conceptualise them. So, for Jo, a tree is fully real, but what about the universal property of 'being a tree'? One answer is to say that universal properties are not real; I have no intention of delving into the controversies of realism vs. nominalism about properties here, so let us imagine that Jo believes that universal properties are real (they have their own reasons and, knowing them, I am confident that they are good reasons). But despite those reasons, they face a damning question: if the universal property of 'being a tree' is real, then does this mean it is 'as real as' a particular tree outside Jo's house? Degrees of reality is fruitful because it allows Jo to be a realist about universal properties without committing to a flat view that everything that is real is as real as all other real things. Based on this view, Jo can conceive of a whole spectrum of trees formed according to what we should call *relative reality*. The tree outside Jo's house is fully real because it is entirely mind-independent. The universal property of 'being a tree' is less real than the tree outside Jo's house because (Jo thinks, and I am not fighting their good fight here!) 'being a tree' is abstracted from the features it shares with other trees. The White Tree of Gondor is even less real than 'being a tree' because it is a fictional object created from different universals, including 'being a tree' through which it is connected to any particular tree. And finally, 'Tree of Life' is even further down the spectrum of reality because it is only a metaphor to speak of something that is not at all related to trees.[15] The thought here is that something is more or less real than other things depending on how closely related it is to some entirely mind-independent basis.

Now, I believe these degrees or levels of reality are witness to degrees of being. We shall discuss this in more detail in the next chapter, but let me explain what this connection means: We take the tree outside Jo's house to be fully real. This is because we assume that the tree still exists without our perceptions of conceptualisations. The existence of the tree outside Jo's house is evident. The existence of the property of 'being a tree,' however, is not as clearly evident: there has to be at least one intelligent being who has seen at least two trees, determining the facts of resemblance between the trees they have seen, concluding that there are things that they share, and therefore conceptualising the 'property of being a tree.' The 'property of being a tree' cannot exist without this process of conceptualisation. If the existence of the property 'being a tree' is not as straightforwardly evident as the existence of the tree outside Jo's house, then there has to be a difference in the way the tree exists and the way the property 'being a tree' does.

So, there is parallel gradation in degrees of being and degrees of reality. But why shouldn't we take these to be identical? We shall find out the answer in the next chapter. It should suffice here to say that we encounter the degrees of being through the levels of reality of entities. Reality is the manifestation of existence. A more pressing question at this point is how we decide on what is more or less real than another. The gradation of reality, manifesting the degree of being enjoyed by entities of different kinds, is the bedrock of how the world is structured, and we need to have at least an idea of how this might work, even if we disagree with the first-order examples presented in what follows.

[15] Maybe, except for its visualisations in Christian art.

4.2. Concreteness vs. Abstractness

Perhaps the first dichotomy (better, two ends of the spectrum) that comes to mind when speaking of the reality of entities is one of the concrete/abstract entities. The examples of the tree and the property "being a tree," which we mentioned above, attest to this. The concrete/abstract distinction matters more to the modern mind, and therefore, despite some famous scholastic debates on this matter, it is less historically burdened.[16] It is true that our understanding of concrete/abstract distinction has its origin in Medieval and Early Modern philosophy, but this debate was not quite as central to metaphysics before the 20th Century. In a sense, it was Frege's claim that mathematical entities were neither material beings nor mental ideas that brought the concrete/abstract distinction to the fore.[17] Frege does not call this new kind of entities 'abstract' (he instead says they belonged to the 'third realm');[18] nonetheless, he finds this distinction of utmost importance. A popular way of explaining what it is for something to be abstract is what David Lewis calls the 'negative way,'[19] meaning to explain something by their lack of certain features. That is precisely how Frege describes the 'third realm' as neither material nor mental. So, Frege claims that something is of this third realm if it lacks material attribute – or as Peirce calls it, 'externality' – while also lacking attributes associated with mental entities. Mental entities are mind-dependent, so Frege is saying here – in a negative way – that abstract entities are 'real:' they exist regardless of our thoughts while having no external attributes.[20]

The problem with this Fregean view of abstract entities is that it takes that if abstract entities exist, their reality is a condition of what they are. This is particularly problematic since the reality of abstract entities is a matter of controversy. It is, indeed, possible to flesh out abstract entities exactly in the sense of 'the third realm' without any requirement of reality. This other approach has two concepts of space and time at its heart, according to which the three realms of concrete, mental, and abstract could be drawn. As I mentioned in the introduction to this chapter, I am not defending any particular first-order theory, but let us see how this three-fold view categorises entities of the world to see the fruitfulness of the theory of degrees of being when applied to this particular view.

The most straightforward of the three realms mentioned above is, of course, *concreteness*: something is said to be concrete just in case it exists *spatiotemporally*, meaning it occupies a region of space (in the broadest sense of the word) and exists in time. So, this desk is concrete; the drops of rain that make everything look so miserable are concrete; the molecules that make those drops of rain are also concrete; the light from the sun is concrete, too. They are spatial, and they are temporal: they exist in time; they come into being, they are around for a certain amount of time, and

[16] Rosen (2020), Intro.; the scholastic nominalism (as represented in works of philosophers such as Roscelin of Compiègne, Peter Abelard, and William of Ockham) was not exactly concerned with defining what abstract objects are or what the concrete/abstract distinction is. They were primarily engaged with the problem of universals and their goal was a refutation of the existence of 'universals' rather than abstract objects. Even in that one could argue that the issue was less metaphysical and more linguistic for the scholastic philosophers. See King (2004) and Spade (1999) for some discussion.
[17] Frege (1960), 58 [§45].
[18] Frege (1984), 363. The use of the term 'abstract' in English is a result of a broad association that this 'third realm' has with the 'abstractions' in the Scholastic philosophy of language.
[19] Lewis (1986), 83.
[20] Rosen (2020), §3.

they cease to exist at a certain point in time.[21] All external things that we perceive around us are concrete; all microscopic material objects or non-material physical beings (such as radiation) also belong to this class of entities.

Mental entities, on the other hand, are those that lack the spatial condition of concrete entities but are still within the bounds of time. The misery I feel from the rain is a mental entity, and so is my aspiration to be a Doctor of Philosophy. These are clearly non-spatial: where is my misery? Which region of space is occupied by my aspiration to be a Doctor of philosophy? But these are still temporal because they exist within a timeframe that certain minds are engaged with them. I feel miserable, for instance, as a result of constant rain as long as it does rain (be that, as it may, virtually 'all the time' in England). Social constructs, such as race or GDP, are also mental entities. They are not special regardless of being formed based on some concrete elements (such as the skin colour of a group of people), but they are temporally bound because they exist in a collective mind of society according to norms and mores of that society in a period of time.

This view that mental entities are those that have temporality and no spatiality could be traced back to Kant's *transcendental idealism*. Kant speaks of two senses for 'externality:' One is the 'transcendental' sense, which takes something to be external if it does not depend on somebody's representation – hence the external is 'noumenal.'[22] The other sense of 'external' is the empirical sense, which relies on the difference between 'outer' and 'inner' senses;[23] the outer sense is the sensible intuition of the objects in the world – it simply refers to spatial beings. In this empirical sense, external things are "to be encountered in space."[24] On the other hand, time is inner intuition[25] and is what orders [or generally deals with] the mental entities – including the appearances formed of spatial objects.[26] The entities that have no empirical externality but are experienced by the inner sense are mental entities. These, as Kant also takes them to be, exist within the bounds of time.

Abstract entities, then, are those which exist neither in space nor in time – a negative explanation again. For instance, the number 42 is not spatiotemporal (even if the numeral I just scribbled down would be seen as spatiotemporally located). This third realm is one that lacks both conditions of concreteness and the sole condition of mental existence. Some philosophers believe there can be no such ontological realm as abstractness because all that there is could and should be classified as belonging to either of the other two realms.[27] These are the (predominantly physicalist) philosophers who equate concreteness and reality, taking whatever that is not concrete to be mind-dependent.[28] Some other anti-realist philosophers explain abstract objects away by appealing to linguistic analysis.[29] Again, I do not intend to delve into the debate around the existence or reality of abstract

[21] This is a very simple view of temporality and persistence only to fit the purpose of my explanation without getting engaged in the controversies regarding theories of time and persistence. To see an overview of theories of time see Callender (2011) and see Hawley (2001: §1) for an overview of theories of persistence.
[22] Kant (1998), 428 [A373].
[23] *Ibid*., 228 [A98-9]
[24] *Ibid.*, 428 [A373].
[25] *Ibid.*
[26] *Ibid.*, 184 [A41/B58].
[27] Here I am speaking of various anti-realist and nominalist views about abstract entities which are mostly about particular classes of such entities not 'abstract entities' as a whole.
[28] *Predicate* nominalism, *ostrich nominalism* and *concept nominalism* are examples of this approach. See (Rodriguez-Pereyra, 2019: §4.1) for discussion.
[29] This is the approach employed since the medieval period and has been central to the 20th Century nominalism in works of such prominent figures as Nelson Goodman & Quine (1947) and Lewis (1986).

objects. Instead, I ask my reader to follow me in assuming the existence of abstract entities (if not their reality) in order to see how the theory of degrees of being pans out.

What does this have to do with the theory of degrees of being? As I mentioned earlier, existence is manifested in reality. The assumption here (to showcase my view) is that concrete entities are more real than abstract or mental entities because concrete entities are fully mind-independent, whereas mental entities are not as mind-independent as concrete entities, and abstract entities are very much mind-dependent. If concrete entities are more real than mental entities and mental entities are more real than abstract entities, then we have a good case of degrees of being manifesting itself in the structure of reality (I will further expand on this in Chapter 5). But this threefold categorisation of entities seems too rigid to be compatible with how things *really* are. Adding Frege's third realm was to break the strict dichotomy of real/unreal, but at best, it just adds another rigid classification of entities. The idea of degrees of being does not work with such rigidity of categories or classes, and adding more classes does not make those classes less rigid. The central task of ontology is not solely to determine how many classes or realms of entities we have but to determine which entity belongs to which realm. This is where most realist theories of abstract objects fall because of their rigid understanding of these realms. I believe we see entities with varying degrees of concreteness, abstractness, or mental dependence within each of these realms. There is also a good deal of overlaps that could be confusing if the boundaries for the realms we spoke about are going to remain so rigid. To show what I mean by this softer model of classification of entities into the three realms, I shall demonstrate a couple of interesting first-order cases.

First, sets are generally taken to be abstract entities. Like all mathematical objects, they are abstract because they cannot be located in time or space. This sounds as uncontroversial as they come; apparently not! Some philosophers believe that some sets could exist spatiotemporally. The idea is that some sets are *impure* – meaning their members are concrete objects[30] – and that these sets occupy regions of spacetime where and when their members occupy regions of spacetime. So, David Lewis says, "The set of you and me is partly here where I am, partly yonder where you are."[31] Penelope Maddy even believes that sets that have impure sets as their members are spatiotemporally located. For instance, {{{my left hand}, {my right hand}}, Sistine Chapel, $\sqrt{2}$} is partially located in virtue of my left hand, my right hand, and the Sistine Chapel.[32] Naturally, the first response to this view is to make a theoretical decision whether, in light of these claims, we should believe that impure sets are abstract or else retract from the non-spatiotemporality of abstract entities (or find a way to resist the claim made by Lewis and Maddy). But why shouldn't we understand impure sets as what they are, i.e. in-betweens? We could see the merit of committing to some sort of ranged metaphysics here, in which some things stand in between and are not as concrete or abstract as others. Impure sets could be spatiotemporally located, but they are still sets; so, Impure sets are less concrete than their members but also are less abstract than pure sets. If concreteness entails the highest level of reality and abstract objects are to be considered less real than concrete ones, here we have a range of more or less based on how close an abstract entity is to concreteness. Impure sets are, therefore, more real than pure sets. It is because they enjoy a higher degree of being.

[30] Cook (2012), 219.
[31] Lewis (1986), 83.
[32] Maddy (1990), 59.

Another example, this time focusing on concrete/mental distinction: Quine writes in his 'On Mental Entities' that "[c]louds are real, the sky (as a solid canopy) not."[33] The idea here is that the sky is not an entity but a collection of entities that appear to us – or we refer to it – as a singular thing. In this sense, the sky is a mental entity, whereas all those entities that exist above the surface of the Earth (including outer space) are concrete. But then, if we take the sky to be a mental entity because of the way we perceive a collection of concrete entities and unify them in our minds, then so many other entities in the world that are generally considered concrete entities would also be mental entities. In fact, anything that has parts (at least the ones that are non-organic) could be considered a mental entity because the way it is constituted could be taken as dependent on the mental activities of the perceiver. This should not surprise us at all: Some mereological theories take exactly this stance. Mereological nihilism, for instance, is the view that there exist only mereological atoms [or simple entities], which are entities with no parts, and these atoms never compose any object.[34] According to this view, regions of spacetime are never occupied by moderate-sized specimens of dry goods;[35] there are only these simple entities located in spacetime. So, there is no desk here in front of me, but a vast number of mereological atoms arranged *desk-wise*. Mereological atoms, in this view, do not compose anything, but they are arranged such that they appear (and consequently function) as a desk.[36] This '*arrange x-wise*' is evidence that all (supposedly) composed objects are mental entities because the way they appear is not what they are. So, for a mereological nihilist, the desk in front of me is a mental entity, just as the sky is for Quine. Now, for those of us who are not nihilists about composition (such as myself), the idea that some things are seen to be concrete entities when they are, in fact, nothing more than a mere aggregate of concrete things still holds. Even if we take material compounds as concrete entities, one could still take these sorts of concrete entities as less real than simple entities because of the 'aggregation condition' (which is the reason for how they 'appear'). One could even claim that the more complex an object is, the less real it is. Therefore, simpler objects enjoy higher degrees of being.[37]

Here, we see a spectrum of concreteness, abstractness, and mental existence with some possible overlaps. If we take the concreteness to entail a greater level of reality (because of the mind-independence condition), we can see how the entities could be placed at different points on this spectrum. The level of reality of something is the manifestation of the degree of being it enjoys; therefore, something that is concrete exists to a higher degree than something that is abstract. Among abstract things, something that is closer to concreteness exists to a higher degree than something that is more purely abstract, and among concrete entities, a simpler entity exists to a higher degree than a more complex entity (because the complexity involves elements of mind-dependency). These are not all such cases, and one could ramble on about first-order implications of degrees of being in this respect, but that is not the task for the present work.

So, let us move on to another way in which levels of reality (and so the theory of degrees of being) could be fruitful. Concrete entities are the only kind we will need for this other way.

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[33] Quine 1953, 202.
[34] Van Inwagen (1990), 72.
[35] I borrow this term, which is quite popular among metaphysicians today, from J.L. Austin (1962: 8); it refers to 'familiar objects' meaning the physical entities that we encounter in our daily lives.
[36] Merricks (2001), §1.1.
[37] As we shall see in Chapter 5, this view of simplicity/complexity helps us understand the structure of the world according to the theory of degrees of being.

4.3. Actuality vs. Potentiality

Levels of reality could also be found in modal claims. Everything exists – we know that by now. Not everything that exists is fully real. Not everything that exists is here. Not everything that exists is known. But everything exists. By assuming that 'everything' exists, I commit my theory to a *possibilist* approach to modality, that is, some things exist which are not actual.[38] Something is actual if it exists actively here and now. The notion of actuality could be better grasped when understood alongside the notion of potentiality. Potentiality is the capability of being something else (or bringing something else about), whereas actuality is the state of something being what it presently is. Something *a* is potential in *b* just in case *b* could become *a* or bring *a* about, whereas *b* is actual as *b* (as we shall soon see, this 'bringing about' does not have to be in close proximity to what comes to be actual). The terminology discussed here is originally an Aristotelian one – so much that 'actuality' in this sense was coined by him.[39] Aristotle speaks of potentiality and actuality in *Book Θ* of his *Metaphysics,* where he speaks of these two terms in connection to one another and to the previously discussed notions of matter and form (across time). Aristotle's own view of these notions is that potentiality is the *capacity* that something has to bring something else (or something of itself) about, and what comes about is that capacity actualised.[40] Think of a piece of wood; it could be cut into a wooden spoon, or it could be chopped and seasoned to be used for burning. Both 'spoon' and 'log' are potentialities a certain piece of wood has (alongside many other such potentialities). So, when an artisan carves our piece of wood into a spoon, one of its potentialities is actualised. The wooden spoon is actual in the object of the wooden spoon but was potential in the piece of wood.[41]

The above example should show the usefulness of the actuality/potentiality divide but does not fully explain different modes of being. For example, one could ask what happened to the potentialities that did not become actualised. Did they cease to exist the moment that the wood was carved into the spoon? A positive answer here results in the negation of our long-assumed statement that everything exists. The point here is that if we can quantify over the possibilities that are now entirely gone, they still must exist in some way. Counterfactuals (such as 'this wooden spoon could have been a log for a wood burner') attest to the claim that we do refer to and quantify over potentialities that were never actualised. The need for explaining how we account for potentialities and actualities that are no longer *active* (meaning they are no longer actual or potential) shows that Aristotle's theory could be expanded to account for every mode in which entities could be. Avicenna does offer such an expanded version of the Aristotelian theory of modality in the 'Metaphysics'[42] in his *Book of Healing,* and here I intend to showcase a system broadly influenced by his. (This, again, is no more than a theory to showcase how my version of the theory of degrees of being could be useful in first-order metaphysics.)

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[38] See Menzel (2018) for a discussion about actualism vs. possibilism.

[39] Makin (2006), xxviii. The word that he invented was ενέργεια [*energeia*], but to mean something to the effect of actuality, he also used the term ἐντελέχεια [*entelecheia*], which appears to have some precedent in Greek literature before Aristotle. However, the occurrence of *entelecheia* in *Metaphysics Θ* is very limited.

[40] Aristotle (1984b), 1651 [*Met.* 1046ª12].

[41] See Makin (2006: xi-xlii) and Barnes (1995: 94-6) for a discussion of Aristotle's theory of actuality and potentiality.

[42] The exact translation is 'Theology' (الٰهيات /*Ilahiyat* in Arabic), but since the content of this chunk of *The Book of Healing* is predominantly metaphysical, it is usually cited as 'Metaphysics' in the Western literature on Avicenna.

Avicenna speaks of necessity in many different senses,[43] but one particular sense of necessity for him is one that entails 'eternality' in the sense that something *a* is necessarily *F* iff *a* has always been *F* and will always remain *F*. I use the term 'eternal' after the established Avicennan terminologies, but this should not entail any temporal sense (though it is temporal in many cases). For instance, mathematical truths should be taken to be of this kind. We seem to accept this Avicennan claim within the contemporary framework of modality that if something is eternally *F* (or rather bears property *F* eternally) in the sense mentioned, then it *cannot* be anything other than *F* (or it is/it bears *F* in all possible worlds). To avoid the theological bearing of the term 'eternal', I shall follow Robert Wisnovsky in calling this the *absolute* sense *of necessity*.[44] So, when something is necessary, it is purely actual, meaning there is no potentiality in it, and it has never been potential. As I already mentioned, True logical or mathematical statements, such as all squares are rectangles, are considered necessary in the absolute sense because the truths of such statements have never been 'potential.' Another example is the *necessitarianist view* about laws of nature. One argument in support of the necessity of the holding of laws of nature is what is known as *the argument from counterfactual robustness*. According to this argument, laws of nature are robust generalisations that would hold even if the world were populated differently (i.e. more or fewer entities existed in the world) or if the conditions that were obtained in the world were different to the ones obtained now.[45] When we say nothing moves faster than the speed of light, not only do we mean that nothing moves faster than the speed of light in this world with these entities and these conditions in it now, but also that with different conditions and different numbers of residents, this law would still hold. The laws of nature (regardless of our knowledge or manner of our formulations of them) are always already actual.

Knowing what it is for something to be (absolutely) necessary helps us in determining the modes of being most present in our lives, namely contingent beings.[46] Contingency implies two different modes of being, one that bears the property of being actual and the other that bears the property of being potential. The *contingently actual* entities are the entities that exist in actuality, but they were not always actual, and it is not the case that they will always be actual.[47] Aristotle explains this 'becoming actual' in terms of *accident*, by which he means that a particular actualisation is only actualised due to some chance. Since a potentiality is only one among many others, its actualisation is in no way essential to what something actively is. If such actualisation is not essential, it is treated as accidental in the Aristotelian theory of metaphysics.[48] In other words, it is not necessary for a

[43] As Wisnovsky (2003: §14) states, Avicenna uses 'necessity' in seven different ways, which are closely connected to one another in some respects. These are mostly logical forms, some of which have direct metaphysical consequences. It is important, however, to note that all these logical senses are concerned with one metaphysical matter: holding essential properties. So, something *a* necessarily holds property *F* iff *F* is an essential property of *a* (Booth, 2017: 102).

[44] Wisnovsky (2003), 245. "Absolute necessity" here corresponds to what Avicenna calls 'necessary in itself' [واجب الوجود بالذاته / *Wajib al-wojud bidhatihi*] – this is something that needs nothing other than itself to exist. See Avicenna (2009: 30).

[45] Kment (2021), §2.

[46] Contingency is the equivalent I use for what Avicenna speaks of as 'possibility' (امكان / *Imkan*).

[47] Avicenna calls this mode of being *necessity through another* (واجب الوجود بالغير / *wajib al-wojud bilqair*), which implies another sense of necessity in his view: being necessary as a result of necessitating conditions. Something necessarily exists through another when the conditions are provided such that it would necessarily be actualised. This is exactly what Aristotle means by coming into being as caused by four causes: when all four causes (material, formal, efficient, final) are present, the effect would be necessary. This is why Avicenna sees an actual contingency as necessary [through another]. See Avicenna (2009: 30-31).

[48] Aristotle (1984b), 1620-2. [*Met.*E.2. 1026^{a}34-1027^{a}28)]

certain potentiality to become actualised. Most of the entities that we encounter in our everyday lives are contingent actualities. The particular piece of wood used in this desk is contingently actual as 'being a part of this desk' because, as a piece of wood, it had the potentiality of becoming part of this desk, a bowl, part of the woodwork in the construction of a house, or to become another type of desk, but as it happened it became actualised as part of this desk in front of me.

Contingent potentiality, on the other hand, is a potentiality that could be (but has not been) actualised.[49] This is the familiar sense of potentiality, which entails a level of expectation about the way things might turn out to be. All the things that the piece of wood that became part of my desk could have been when it was not yet part of my desk were the contingent potentialities of this piece of wood then. There is always one contingent actuality in a given context[50] and multiple contingent potentialities to each entity. The mode of the piece of wood as a piece of wood is a contingent actuality of "being this piece of wood", but the mode of the wooden bowl that could be carved from that piece of wood is one of its contingent possibilities. When this piece of wood has become part of the desk, its contingent actuality is "being part of a certain desk (e.g. back, top, legs, etc.)," and the previous contingent potentiality of 'being a wooden bowl' is no more a contingent potentiality (at least in regard to that particular piece of wood).

The question is what happens to 'the piece of wood' as an actual entity when it is actualised as part of a desk (say as a 'desktop') and what happens to the potentiality of the wooden bowl? We could still quantify over these; we could still refer to them and speak about them so they exist in and must have their respective modes, but what are these modes? To start with, let us clarify something about contingent actuality: the potentiality that is actualised keeps its potentiality for what it is actualised as. The piece of wood used in this desk as its top was contingently potential at the carpenter's workshop, but it is also contingently potential as a desktop even when it is actual as a desktop. As Cohen and Reeve note, the desktop is only actual inasmuch as it is a desktop, but as a piece of wood, it is still potentially a desktop.[51] This is one of the justifications Aristotle provides for the problem of endurance of material objects – they endure because their potentiality is being constantly actualised. The contingently actual top part of my desk is what it is and is what it was last night because its potentiality as a desktop is continuously actualised (some might say "*is actualising*"). But when a (contingent) potentiality that is being actualised ceases to actualise, we could say that thing is now *finished*. Something is a *finished actuality* just in case it existed as a contingently actual entity and then ceased to exist in that particular form at a certain point in time. Say I had another desk in the past which does not exist anymore; that desk [or its top, or any other parts of it] constantly actualised its 'desk-ness' until the point that it ceased to exist – say, it broke and was chopped and used as fuel for a fire. Now that it does not exist as a desk, it could be considered something that is finished.[52]

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[49] I draw this from the Avicennan notion of *possibility through another* (ممكن الوجود بالغير / *mumkin al-wojud bilqair*), which entails that it is only possible because it is a potentiality in something else. This might not be the agreed understanding of this term in Avicenna's work. See different interpretations in Wisnovsky (2003: 214-6 & 220-4) and McGinnis (2010: 182-9).

[50] 'One contingent actuality' in a given context. I will come back to this.

[51] Cohen & Reeve (2020), §12.

[52] This view of endurance of actuality is not dissimilar to what David Lewis calls the perdurantist view of persistence (1986: 202). According to this view, things persist not as wholly present in different times but as present at different times with their different temporal parts. Neither Aristotle nor Avicenna spoke of anything remotely similar to temporal parts, but I believe that my reformulation of their views here could fit into the perdurantist view; because, according to this view of actualisation at every given point of time, a portion of a

Now, back to the no-longer-potential potentiality: The piece of wood that is now contingently actual as the top part of my current desk could have been carved to make a wooden bowl, but when it was cut to make this desktop, the potentiality of being a wooden bowl was no more. However, that potentiality, although neither actualised nor actualisable, still has some sort of existence [everything exists, don't you know?] so must have a mode of being. I shall call such entities *missed potentialities*. Something has a number of contingent potentialities and one contingent actuality in any given context;[53] when one of the contingent potentialities of that thing is actualised, the rest of those potentialities are most likely 'missed', and when that actuality has perished, it is itself 'finished.' An interesting slogan in academic circles of Islamic Philosophy is attributed to Aristotle regarding the modes of being for past actualities and past potentialities: 'What is past is either done, or it is gone.'[54]

Now, to these modes, we might add another: pure potentiality. Here might be a good place to introduce the notion of possibility and show how it differs from potentiality. Barbara Vetter defines potentiality as 'local modality' as opposed to the *possibility* that she described as 'non-localised modality.'[55] This 'localisation' refers to limits of space and time that is characteristic of potentiality and are not found in metaphysical possibility. Regarding my broadly Avicennan characterisation of modes of being, something is metaphysically possible just in case its existence could be conceived of regardless of its present actuality or potentiality. A particular unicorn is possible, and so is an unborn foal somewhere in Kent. Moreover, a horse that exists today (and perhaps is the mother to that foal) is also possible. Anything that exists but is not necessary could be generally seen as 'possible' in the system of modes of being discussed here. Now, let us go back to our pair of notions, the actual and potential modes: in sharp contrast with something that is purely actual (which we called absolute necessity), there is a mode of pure potentiality. The entities of this mode are the ones that could never be actualised, and thus, the description of 'pure potentiality' is a misleading one since they are not precisely 'potential' if there is no chance of actualisation. This is why I use the language of possibility for these, calling them 'mere possibilia'.[56] Something is merely possible just in case it does not exist actually and could never be actual in our world. As for instances of such entities, unicorns are mere possibilia.[57]

Now, it should be clear that I take these modes to correspond to levels of reality. Actuality entails a higher level of reality. When we have a piece of wood, that piece is fully real, but the potentialities it bears (e.g. the desktop, wooden spoon, fire log, etc.) are not so much. When the wooden spoon is carved, the potentialities which that piece of wood bore in the past still exist, but they are not as real as the actual wooden spoon in my hand. The idea is easy enough to grasp, but how do we measure the levels of reality in this respect? In the previous section, I offered a view of levels of reality concerning concrete, abstract, and mental entities based on the idea of 'closeness to mind-

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contingently actual entity is being actualised, but no portion is identical with the other portions actualised at other points in time. These portions of potentiality are close in sense to temporal parts.

[53] It is possible for something to have more than one actuality regarding different contexts. Here my example is concrete material objects for purposes of clarity, and entities of this kind are often singularly actualised in each context. Say, a desk is actualised *qua* this desk and its desktop [although involved in actualisation of 'this desk'] is also actualised *qua* desktop.

[54] I never found this anywhere outside lectures given by scholars of Islamic philosophy or by Muslim theologians. I assume Aristotle never uttered such words, but I still find this slogan very captivating.

[55] Vetter (2015), 103.

[56] Peacocke (2002).

[57] Avicenna also speaks of 'impossibility', but I suppose we have enough on our hands as it is. Let us leave that one out.

independent bases.' Here, we can think of something more or less similar: the actual is mind-independent, whereas the potential requires some levels of mind-dependency. We think of things that are not there, and that entails mind-dependency, but our mind forms these thoughts based on some evidence which could be used to measure the distance of potentiality to its 'mind-independent basis' (i.e. to actuality).

This idea of 'distance from actuality' is more or less similar to what David Lewis speaks of as closeness to the actual world. In both his *Counterfactuals* and *On the Plurality of Worlds,* Lewis shows interest in the possible worlds that are 'similar' to ours. He proposes a view akin to measuring distances according to which other possible worlds stand at certain distances from our actual world based on how similar they are to it. Some worlds could be quite close to the actual world. For instance, the world where kangaroos have no tails is closer to our world than the one in which kangaroos float around.[58] One merit of Lewis' view about the closeness of possible worlds is that some possibilities could be seen as slightly closer to actuality than others. This offers a graded view of possibility; what remains is how to measure this closeness.[59]

The answer depends on different metaphysical theories, and as mentioned before, I have no intention of engaging in any metaphysical controversy more than I need to. There are, however, some widely accepted views about modality that could be used to justify the distance from actuality and, therefore, establish the different levels of reality. One such idea is what is generally known as "*iterated modality*."[60] There are different ways that iterated modality could be raised, but to keep the discussion manageable, I only focus on iterated potentiality – the one aspect most relevant to our discussion. Barbara Vetter explains iterated potentiality as "a potentiality for another potentiality, which might itself be for another potentiality, and so forth."[61] For instance, as a human being, I have a contingent potentiality of 'having a daughter,' and this contingently potential daughter has a potentiality of being a mother herself, say to a girl. My doubly distant (contingently potential) granddaughter *could be* a musician specialising in historically informed performances of Baroque music. Considering these 'possibilities,' we could make a reliable claim that the potentiality of me having a daughter is way closer to actuality than the one of my potential daughter's potential daughter being potentially an HIP musician. Iterated modality of this sort could also be applied to the mode of missed potentiality. We could say Karol Józef Wojtyła (later Pope John Paul II) could have had a child had he not decided to be ordained as a Catholic priest, and his child could have had a child of his own who could have become an anti-communist protester in late 1980s Poland. These are a series of iterated missed potentialities, the closest of which to actuality is the missed potentiality of young Karol not being ordained as a priest.

The iterated potentiality points out at the levels of reality in the sense of measuring the distance of entities of different modes to 'here and now.' My contingently potential granddaughter enjoys a lower degree of being because, in her contingent potentiality, she is farther away from the events of my life here and now. The priority of 'present' in this respect is justified by our claim that reality is understood in terms of mind-independency, and the present is more mind-independent than the past and the future.[62] But this view could, at first glance, result in some odd assumptions, something

[58] Lewis (1986), 21.
[59] I discuss Lewis' view on the closeness of possible worlds in detail in §5.3.
[60] First discussed in Jonathan Bennett's (1955).
[61] Vetter (2015), 105.
[62] Aristotle (1984a), 369-71 [*Phys.*IV.10. $217^{b}29 – 218^{b}21$]. See David Bostock (1980) for a refreshingly concise exposition of Aristotle's view on time.

to the effect that Julius Caesar exists to a lower degree than Napoleon because Napoleon lived nearer our time than Julius Caesar. This is not what I mean by distance from here and now. Like it was with iterated potentiality, the sequence of actuality is context-dependent.[63] In this sense, the distance is not about when something is actual but how (or by what sequence) it relates to here and now. To clarify this, let us consider a variation of a famous Aristotelian example: Here (and now), we have a desk made of oak – it is contingently actual as a desk. Before the oak plank was cut to be used in this desk, it was actual as a plank, but now that particular plank is a finished actuality. Yet they were actualised as an oak tree before being cut into those planks. The oak tree itself was an actualised potentiality of an acorn that was contingently actual many years past. Now, the thought that the particular acorn in question is more distant from the actuality of this desk has very little to do with 'when' it was actual; instead, we could say the acorn is more distant to actuality than the planks of oakwood because of it is further away in the chain of actualisation. As a result, not only is the acorn ' less real' than the desk due to its modal status as 'finished actuality,' but it also is less real than some other 'finished actual entities' such as the oak tree. Of course, this chain of actualisation is temporal, but the temporal distance is not the determining factor in how real something is.

One final remark: if 'actuality' entails full reality, then those entities that are purely actual, such as mathematical entities, should be fully real. In a sense, one could say a mathematical entity or fact is more real than a contingently actual entity. This is precisely how medieval philosophers of the Avicennan tradition (like Thomas Aquinas) took God to exist to a higher degree than the creatures: God was a necessary being, whereas creatures were taken to be somewhat fortunate to be actualised. Some overlap between the spectrum of reality offered in the previous section and the one offered here could be useful in keeping one's theory intuitive. For instance, one could argue that the spectrum of concreteness-abstractness-mental-existence must be taken prior to the spectrum of actuality-potentiality (perhaps because concreteness has stronger entailments of 'mind-independence). As I said earlier, I have no intention of defending any particular first-order theory in the present work, so my claim is that any given theory that relies on the degrees of being must be able to account for the structure of the world in its entirety and the world is not singularly structured. So, it is important to be able to explain how levels of reality in each spectrum could correspond to levels of reality in other spectra. I shall return to this in the next chapter when I speak of the connection between the theory of degrees of being and the hierarchical structure of the world.

4.4. Conclusion

In this chapter, I showed that reality is the manifestation of existence, and as such, the graded nature of reality attests to what I call 'degrees of being.' I explained what grades of reality mean and how we experience things as more or less real than other things. I called something fully real if it exists regardless of anyone's perception of conception. Reality, therefore, is defined in terms of mind-independence. Having some entities as fully real provides some 'basis' for those entities that are not fully real – meaning they are somewhat mind-dependent. So, we can measure how real something is based on its distance from its mind-independent basis (or bases). I showcased this view by means of

[63] See Corfield (2020: 126-9) for a detailed discussion of context-based modal claims (though his focus is solely on counterfactuals).

two examples: concreteness and actuality. In a sense, this chapter aimed to showcase the fruitfulness of the theory of degrees of being through its manifestation in levels of reality.

Now, why does this matter? The immediate answer is that the relation between reality and existence makes the theory of degrees of being more graspable. But there is more to this. Reality is the feature of the world (indeed, as we shall see in the next chapter, these two terms refer to the same thing). So, clarifying my views about reality and its relation to being (and its degrees) is central to explaining how the theory of degrees of being could justify the hierarchical view about the structure of the world (i.e. the view according to the theories of fundamentality). This justification, which motivated the present work, as mentioned in Chapter 1, is discussed in the next chapter.

5. Priority of Being

The heavens themselves, the planets and this centre
Observe degree, priority and place,
Insisture, course, proportion, season, form,
Office and custom, in all line of order

…

Take but degree away, untune that string,
And, hark, what discord follows!

(William Shakespear, *Troilus and Cressinda,* Act 1, Scene 3)

Now, we can finally get to answer the question posed in Chapter One: "What makes one thing more fundamental than another?" In this thesis so far, we first learned that the notion of fundamentality is precisely studied and explained, but still, we cannot say with any degree of certainty what makes something fundamental or more fundamental than another thing. I proposed that the answer could only be found if we use a primitive notion to characterise how the world is structured, and since fundamentality itself is explained (or at least characterised) in other terms, it cannot itself be used to justify the way in which the world is structured. Existence, conversely, was determined to be a primitive notion that could be used as such. I then offered a survey of how we understand the existence of entities in terms of ways things exist: some philosophers believe that existence has only one sense, whereas others argue for multiple senses of existence. I showed that the contention here is the result of confusing the 'senses' and 'kinds' of being and thus offered a third (perhaps middle-ground) view that being has many kinds which could correspond to one sense. The only way this could be possible is to take that one sense to have degrees of intensity such that each kind differs from other kinds due to the degree of being it enjoys. I then showed the application of this view of the theory of degrees of being in the previous chapter to demonstrate how the theory of degrees of being, characterised as such, could be utilised by a variety of first-order theories of metaphysics. I argued that we encounter degrees of being as manifested in levels of reality: some things are more real than others, which are determined by the distance they have to their mind-independent bases.

In this final chapter, I intend to use my version of the theory of degrees of being to explain the metaphysical status of entities, i.e. how something is more fundamental than another. In the first section (§5.1), I clarify what I mean by 'the structure of reality.' I explain that 'reality' is identical to what we might call 'the world', which means 'the totality of all that there is.' I take the world to be structured hierarchically (but not necessarily so) and show the problems we might face in explaining the metaphysical status of entities in this hierarchically structured world. In §5.2, I demonstrate how the theory of degrees of being explains the metaphysical status of entities and offers the best explanation for how the world is structured. After this, I go on to show the superiority of the theory of degrees of being in justifying the hierarchical structure of the world to two of the stronger (or at least more widely accepted) contenders for this task: §5.3 is dedicated to comparing my version of

the theory of degrees of being with Lewisian theory of natural properties and in §5.4 I do the same with Karen Bennett's *building*. By the end of the chapter, I hope to establish the theory of degrees of being as the superior theory for dealing with the pressing question of "what makes something more fundamental than another."

5.1. The Structure of Reality

When we talk about fundamentality, we are, in effect, evoking a notion that I call the *structure of the world* (or, as we shall soon find out, the *structure of reality*). The world certainly has a structure (regardless of whether that structure is hierarchical or not), which, as Laurie A. Paul says, "concerns the fundamental constituents of the world… and the fundamental categorical structure."[1] If the structure of the world is hierarchical, then there is a multiplicity of levels, some of which rely on others, and as a result, that level which relies on another in some way is less fundamental than the latter level.[2] But if the structure of the world is not hierarchical *per se,* then it is either flat or twofold. A *flat world* is a world in which everything is fundamental, meaning that nothing relies on any other things in any way.[3] The fact that there is only one level to the flat world, however, does not mean that such a world is devoid of structure. The flatness of this world is itself a structural feature. The *two-fold world* is the same: things are either absolutely fundamental or entirely derived in such a world.[4] All that is derived in the two-fold word belongs to the same level, and all fundamental entities are fundamental in the same way and sense (i.e. they are all similarly independent and collectively complete). My aim in this chapter is not to defend or debunk any view of structure but to show how the structure of the world and theories of fundamentality, whatever they might be, could only be understood in terms of degrees of being. Hence, it might be helpful first to explain what we might mean by the structure of the world.

By *the world,* I do not simply mean 'the actual world.' The actual world, in the usual philosophical sense, is the world that surrounds us in the exact way it is – contrasting the possible ways the world could be (or could have been). I think of 'the world' (as opposed to the actual world) as all that is possible, including the actualised potentialities (i.e. what there is here and now).[5] This means that all that there is/was/could be/could have been form what I call *the world*. From this viewpoint, 'the world' functions, in a sense, as a superset that has all possible worlds (including the actual world) as subsets. Furthermore, worlds are 'formed' by their entities: they don't exist on their own. In this sense, a world is a collection of entities forming it as a whole. Our world could not have existed if it was not formed by all that is in it: from subatomic particles, medium-sized objects, and galaxies to abstract entities and to all the properties and all the states of affairs, the world is formed by entities such that if you take these entities away (if it was at all possible to take *all* of them away) there would be nothing left to refer to when speaking of the world.

[1] Paul (2012), 221.
[2] See Bennett (2017), Schaffer (2010), and Tahko (2018)
[3] I am not aware of any philosopher who defends a full-on flat-world ontology, but the view is widely discussed as a possibility in literature. See, for instance, deRosset (2013), and Bennett (2017:214-6). Weaker views of flat-worldism could easily be found in contemporary literature, however: most neo-Quineans (such as van Inwagen) are flat-worldists. See also Sider (2013).
[4] Armstrong (1997). I think we should count Aristotle among the defenders of this view too.
[5] See Bricker (2006)

So, the world is formed by all that there is; the world's formation seems to be quite complex, perhaps even messy or chaotic. What I call the formation of the world includes every single entity there is, whether actual or possible. The world, however, is formed (and is constantly being formed) according to a structure. What, then, is a structure? Something's structure is its basic elements and/or principles according to which that thing is formed (or built). In this sense, there is a direct relation between the notion of fundamentality, as discussed in Chapter 1 and what I call the structure of the world. The structure of the world is ultimately about the fundamental elements and categories upon which everything else relies. Depending on one's theory, fundamental entities give the world its structure or else, the world's structure *is* its fundamental level. Theoretical disputes of this sort do not concern us here; what matters to us is that the structure of the world necessarily evokes the notion of fundamentality.[6] The world could be structured in a flat way, in which case everything is fundamental in the same sense. Or the world could be structured in a two-fold manner in the sense that everything is either fundamental in the same way or derivative in the same way. Or else, the world could be structured hierarchically, which takes some things to be more fundamental than others, which in turn could be more fundamental than further entities and so forth. I do not favour any of these views, even though I will make use of only one of these views of structure in most cases for the rest of this chapter, namely the hierarchical structure. The reason behind this choice is only a practical one: whatever is true of a multi-level world is also true of one or two-level worlds, but the opposite is not always the case. So, it is simply economical to showcase the relation between the theory of degrees of being and the hierarchical structure of reality, assuming that the relation will hold even if the structure of the world is not hierarchical. This shall become clearer by the end of this section.

What I mean by the world, then, includes not only things that exist here and now but all that ever was, all that could potentially be, and all that could have been (but never was). In this sense, my view of the world is very much like what I talked about in detail in Chapter 4 under the label of *reality*. We are used to claims of the sort that something is real just in case it exists independently, without being perceived or conceived by the human mind. But, as I argued in the previous chapter, reality need not be an absolute notion. Let us again assume a realist position about properties to see how this relativist view of reality works.

Some things are fully real, such as the oak tree just outside my house, but those things that are not fully real still do enjoy some degree of reality. Let us see this from the viewpoint of an Aristotelian realist:[7] If an Aristotelian realist is committed to the theory of degrees of being (as they ought to be), they can claim that the universal property of 'being an oak tree' is not quite as real as the oak tree outside my house simply because properties such as 'being an oak tree' relies on the existence of a human mind: for instance, one could argue that the universal property 'being an oak tree' is derived from experiencing more than one oak tree and noticing the resemblances between the observed trees. These resemblances might entail some level of mind independence, but even if we consider them mind-independent properties, they cannot be *as mind-independent as* concrete objects such as individual oak trees. So, the universal property 'being an oak tree' is real to a degree, and that degree, as I argued in the previous chapter, is determined by how closely connected it is to its mind-

[6] When I speak of fundamentality in this chapter, I generally mean 'relative fundamentality.' In Chapter 1 I explained both relative and absolute senses of fundamentality. There, I argued that well-foundedness (which is an essential feature of absolute fundamentality) makes very little difference in how the world is hierarchically structured and, therefore, we could remain agnostic about absolute fundamentality.

[7] According to Aristotelian realism (defended by Boethius, Duns Scotus, and more recently David Armstrong but not necessarily by Aristotle) universal properties exist but only in virtue of their instances.

independent basis (in this case, individual oak trees). To see how one might determine the closeness to the mind-independent bases, consider the universal property of 'being a tree:' This property is less real than the property 'being an oak tree' because 'being a tree' is the property that includes all different kinds of trees and hence is twice removed from the oak tree outside my window.[8] We have also seen in the previous chapter that this graded view of reality holds between entities of different categories as well as entities of each category: the oak tree outside my house is fully real, the property of 'being a tree' less so, even less real than the latter is The White Tree of Gondor, a fictional entity. So, *all that there* is has some degree of reality – even if that degree is minimal.[9]

So, what I mean by the world is precisely what I defined as reality in the previous chapter (see §4.1). Reality (or the world) is, then, structured in a certain way, and, as pointed out earlier, this structure is tightly bound to the notion of fundamentality. As I argued at different junctures, reality has a structure such that some entities need other entities to be what they are, and these 'other entities', in turn, could need some further entities. This results in a layered picture with all manners of entities residing at each level. Such an hierarchical structure, which at its most basic form could look like an ancient Near Eastern ziggurat, implies all the features of fundamentality mentioned in §1.2: entities of the bottom level (if there is one) would be independent and (either each individually or collectively) complete.[10] As for the rest of the levels, the relations of fundamentality between entities of the more fundamental level to the less fundamental ones are always asymmetric and irreflexive, while in most cases, they are also transitive (see §1.2.1). The notion of fundamentality itself is not a controversial one: it is simply that something is basic in relation to another thing in a way that the latter would need the former in order to be what it is or function as it does. It is not controversial because even those who take the world to be flat (in the ontological sense, of course) could be on board with this view; they would only argue that nothing is derivative of basic entities. However, as soon as philosophers embark on the quest of defining what is more fundamental than another, the debate delves into swarms of metaphysical disputes (I did mention some such disputes in Chapter One). In such debates, we are merely speaking about the metaphysical status of different entities in terms of that very non-controversial notion of fundamentality, but determining what is more or less fundamental or what is absolutely fundamental needs justification. The way reality is structured, of course, justifies the metaphysical status of entities, but philosophers of fundamentality do not seem to agree on how reality is structured.

To see two of the most obvious views on the structure of reality that could justify the metaphysical status of entities, we must think of the question in a way akin to the Euthyphro Dilemma:[11] something *a* is more fundamental than (MFT) something *b* either because *a* and *b* are essentially of certain metaphysical status and that is why MFT holds between them, or else, *a* is more fundamental than *b* only because MFT holds between them.

The first horn of this 'apparent' dilemma takes the structure to be very rigid: everything has a metaphysical status on its own. The relation of fundamentality here is not itself fundamental but

[8] Also, the resemblances between individual oak trees are much stronger than resemblances between individual oak trees and members of other kinds of trees.

[9] I used only properties to illuminate my view in the most straightforward way. I wrote in a relatively extensive manner that the degrees of reality hold between entities of different kinds of entities as well as between entities of each kind. So, the property of 'being a tree' is less real than the oak tree outside my house but is more real than the White Tree of Gondor which is a fictional entity. See §4.1.

[10] See §1.2.2.2. for a brief discussion of independence condition for absolute fundamentals, and §1.2.2.3. for one for completeness condition.

[11] Plato (1997), 9. (*Eutyhyphro* 10a)

expository: copper atom has a certain metaphysical status that would have been more fundamental than a copper pot even if no relation was held between the two. To some degree, I can agree with this view (let us call it the *essentialist view*): if we take that certain levels form the structure of the world, many of the entities of those levels do not stand in any relation with many of the entities of the other levels, but they could still be seen as more fundamental than some others in virtue of belonging to a certain level. Copper atoms, for instance, belong to the level of atoms, and wooden desks belong to the level of composite material objects; there is no copper used in the building of some desks, but the copper atom still has a metaphysical status *in virtue of* being an atom that could be understood as more fundamental than the status of our desks. Here, the 'in virtue of' relation that holds between an entity and the level (or category) it belongs to justifies its metaphysical status. MFT, then, holds between those levels, not between the members of those levels.

There are, however, some problems with the essentialist view about fundamentality: First of all, if entities were essentially of some metaphysical status, then nothing would have 'built' another thing. Here, I am using 'building' in the same sense as Karen Bennett uses it (which we will speak of in more detail in §5.4): the relation that holds between the more fundamental and the less fundamental such that the more fundamental gives rise to, or 'builds' the less fundamental.[12] This is the kind of metaphysical relation we are most familiar with – the kind that is, perhaps, most often used to explain relations of fundamentality in the simplest way. The relation between the copper atom and the copper pot is an example of building relations: the copper ores are partially built by copper atoms; copper sheets are also partially formed of copper atoms, and our copper pot was built with some such sheets. The copper pot is less fundamental than the sheet of copper, and the sheet is less fundamental than copper atoms. Now, if we take the copper pot to be essentially of a certain metaphysical status (i.e. to belong to the level of medium-sized composite material objects), then why would it need any 'building'? The copper pot does not even exist without being built from sheets of copper; how, then, could it belong to a certain level of the structure of the world without even existing?

The other horn of our Euthyphro-esque dilemma is that *a* MFT *b* only due to the holding of MFT between *a* and *b*. This is to say that the metaphysical status of entities are determined by the relations of fundamentality, making such relations the main structural elements of reality. According to this *relativist view*, entities might be building blocks of the world, but 'building blocks' are no more than mere blocks if there are no "building relations."[13] In a sense, there is no status to the relata of the relation of fundamentality before the relation between them is obtained. A defender of this view argues that the metaphysical status of entities are determined (and justified) according to their place on either side of MFT relations: *a* is more fundamental than *b*, simply because *a* is at the left side of MFT relation. This is to say (metaphysically speaking) that the relation of fundamentality has the metaphysical force to make *a* more fundamental than *b*.

This view seems superior to the previous one in justifying the metaphysical status of entities, not least because it relies less on ideologies. Relations of fundamentality appear to be better candidates for *structural elements* than entities because regardless of ways in which the world could be formed, we can agree that if there is more than one level of entities, those levels together form the world

[12] See Bennett (2017), §2.1

[13] Karen Bennett's theory is perhaps the most obvious example here: she takes fundamentality to be the matter of building relations; see her (2017). Jonathan Schaffer's *entity grounding* is also a theory of fundamentality that revolves around relations of fundamentality largely regardless of relata (except for the maximal entity perhaps); see his (2010a).

exactly due to obtaining of these relations of fundamentality. This is to say that the metaphysical status of entities could be justified by using an element of the structure integral to almost all theories of fundamentality. Furthermore, appealing to relations of fundamentality is clearly more parsimonious than appealing to metaphysical status as essential to entities. Here, one only needs to explain what is meant by MFT relations, not the nature of entities at each level of reality. Defenders of this view could, therefore, offer a plausible account for world-formation based on the notion of structure without having to evoke some controversial beliefs about what comes first and what comes after. In a sense, the relativist view is formed around the idea of "structure" rather than that of fundamentality, and so, fundamentality matters only as a consequence of structure.

But there are some problems with this horn of the dilemma as well. For one, according to this view, the metaphysical status of entities are somewhat arbitrarily determined. In the rawest form of the relativist view, there is no explanation as to why MFT relations hold between certain entities but not others or as to why the direction is such that *a* is more fundamental than *b*, not the other way. To use a theological metaphor, it is as if God created the world flat and then got bored and created some "→"s to entertain themselves and then started to randomly put *a*s and *b*s on each side of these arrows and "lo, *a* is more fundamental than *b*" (or vice versa… depending on how God felt). Now, of course, we could appeal to intuition here in providing an explanation against the backdrop of this arbitrariness, but, firstly, I have decided not to use arguments from intuition to defend my views, and so, I see it fit not to accept it from others either. Secondly, however these relations are held, they could appear to us as 'intuitive' only because we have always known them to hold as such; that does not mean they don't hold arbitrarily between entities. I do not take the arbitrariness of the world-formation to be troubling for my (or anyone's) theory, but I do think that this arbitrariness of MFT relations does not make a good case for justifying the metaphysical status of their relata.

5.2. Degrees of Being to Rescue (Again!)

The two views mentioned in the previous section are the most basic approaches to justifying the metaphysical status of entities. As we shall see later, there exist many theories which deal far better than these two in this task, but I believe those advanced views evolved from either of the views presented above. The issues I mentioned in relation to each horn of the dilemma are so inherent to them that the advanced forms of each view (such as *naturalness* and *building*) still suffer from them. We shall see how this is the case in the following sections, but before that, I shall speak of an alternative view which I believe offers a better justification for the metaphysical status of entities of the world: *a* is more fundamental than *b* because *a* exists to a higher degree.

I said earlier that 'the world' and 'reality' are interchangeable notions. I also noted in the previous chapter that reality is the manifestation of being, meaning that what exists appears to us in ways we associate with reality. That reality is the manifestation of existence is crucial to my view about fundamentality because if we accept this view, as I showed in Chapter 4 that we should, then the structure of reality cannot be taken as primitive, since that too is nothing but the manifestation of something structural in existence. This is to say, if the reality of something *a* is the manifestation of *a*'s way or kind of being, then what we call 'structure of reality' is the manifestation of being not in regard to particular entities but in general. It is, of course, odd to invoke the word 'structure' in relation to being: We don't think of existence as "built" or "formed", and so, it sounds odd to us to speak of the structure of existence. That is true. Reality has a structure because reality is how things stand in relation to one another and to themselves; reality is the world, and the world is built. Being, instead, has a spectrum, as we have seen. Let us again showcase this by assuming some first-order

metaphysical claims (but we should still be mindful that I do not defend these claims, nor is the theory of degrees of being should be seen as associated only with specific first-order metaphysical theories): My cat, Baudolino, is an organic material object but the property of 'being a common cat' is only a property (Baudolino can *meow*, something which the "property of being a common cat" cannot ever do). These two, a particular cat and the property of 'being a common cat', are both entities which are part of the fabric of reality. In some circles, they take Baudolino to be real and the property of "being a common cat" not to be real. According to one view discussed in the previous chapter, the property of "being a common cat" is also real but not as real as Baudolino. I can say this because I take Baudolino's reality to manifest Baudolino's way of being, which differs from the way in which the property of "being a common cat" exists. I have explained this relation of manifestation extensively in the previous chapter, but now I intend to expand this to the structure of reality: as we have seen in Chapter 3, the sense of being for both ways in which these two entities exist is the same, but they are different in their intensity. We can speak of different ways or kinds of being because there is a spectrum such that some things exist to higher or lower degrees than other things. And so, just as the way of existence is manifest in the level of reality enjoyed by something, the spectrum of being is also manifest in the structure of the world. This underlies our tendency to see the world as structured hierarchically – whether we are aware of the theoretical implications of degrees of being or not.[14]

Now, one might argue that considering that we describe the structure with locutions such as 'underlying principle' and that we have said that reality is nothing other than the manifestation of being, then maybe it is 'being' itself that gives reality its structure. If so, we do not need the detour I have taken in the previous passage. I have nothing against this view, as long as we accept that being comes in degrees. The result is the same in both cases: in the previous passage, there is the relation of manifestation holding between being/degrees of being and reality/structure of reality; in this latter, apparently more parsimonious view, there is a relation between being as structure and reality as building. This view, too, works. But how does it work when it comes to the metaphysical status of entities?

The answer is perhaps closer to the first horn of the dilemma I mentioned earlier: the metaphysical status of entities is determined by something inherent in them rather than by standing on the left or right side of MFT relations. But still, I do not agree that things are inherently of certain metaphysical status such that they are more fundamental than something else just because they are. No; I believe that the metaphysical status of entities directly results from the level of reality they enjoy, i.e. something *a* is more real than something *b* because *a* is more real than *b*. Formulating it in this way has the appearance of 'reality explaining fundamentality', which might be something that one is happy to settle on, but I don't think this formulation is good enough. I believe that levels of reality are more tightly connected to metaphysical status than just explaining them. This is to say that something's level of reality *is* that thing's metaphysical status. This should make perfect sense to friends of structure because if this is the case, then the metaphysical status of entities are structural, meaning that it is inherent to the structure of the world that *a* is more fundamental than *b*. That is why this view appears, at first, to be closer to the first horn of dilemma (that things are inherently of certain metaphysical status).

The difference between my view from the degree of being and the essentialist view of the metaphysical status of entities is that I don't take the structure of reality to be primitive. We said that

[14] I claimed in Chapter One that this is a view of the structure shared by philosophers and non-philosophers alike. See Barnes (2012), Bennett (2011; 2017), Bliss (2013), and Schaffer (2009).

reality is the manifestation of existence and that the structure of reality is also a manifestation: the manifestation of the degrees of being. So, Baudolino the cat is more fundamental than a property, such as 'being a common cat, not because Baudolino is inherently of a certain metaphysical status but because it exists in a way that differs from other ways of being, the difference which, as I argued before, should be understood in terms of degrees.

But one might take this to be adding an arbitrary step in identifying what is more fundamental than another; in the end, the result is something similarly more or less rigid and inherent to each entity: after all, a particular cat, such as Baudolino, is *always* going to be more fundamental than a property such as "being a common cat." So, why shouldn't we settle with the primitiveness of the notion of fundamentality that gets us to the same result? The reason for appealing to degrees of being here is that it shows that while there is something essential to how things exist, the degree of something's existence need not always remain the same and therefore, something *a* could be more fundamental than *b* in one metaphysical context, without being guaranteed to always hold that status.

The example of a particular cat and the property of being a cat is misleading here because the differences in the metaphysical status of kinds are very substantial and unlikely to be changed according to context. So, let us see this through another example: in order to showcase my view about degrees of being, I offered a first-order theory according to which 'that which is actual' exists to a higher degree than 'that which is potential' or 'that which *was* actual but is no more.' The degree of being of an actual entity is manifest in its very high degree of reality (which I take to be absolute), and so, although potentialities and past actualities are also real, their mind-independence is relatively weaker than actual entities. Let us agree, for the sake of argument, that this view about degrees of being in relation to actuality and potentiality is correct. If so, the oak tree outside my house exists to the highest degree, manifesting as something absolutely real. Now, if I go and chop that tree down (I don't think I am permitted to do so; I am just painting myself as a monster for the sake of argument), I can make use of its wood for a variety of purposes: I can carve wooden bowls from it, I can (at least try to) build a desk, I can use the wood as fire logs, etc. All these potentialities are less fundamental than the actual oak tree because, superficially, they do rely on its actuality in order to be conceivable as its potentialities. This reliance is superficial because the real reason behind that reliance is 'reality' itself. The potentialities mentioned above are less fundamental than the actual oak tree because they are less real than the actual oak, and as something that is 'less-real' (or less-anything), they need an absolutely real basis in relation to which they would be 'less-real.' But if the oak tree is actually cut down and used for something, then the "oak tree" would not be actual, losing its metaphysical status. The oak tree now is not absolutely real but is a past-actuality which relies on, say, a desk – by means of one's realising that the desk is made of oak wood and hence some oak tree must have existed for this desk to be made of such wood. The oak tree is now less fundamental than the desk. The oak tree is less fundamental than the desk because the oak tree is *now* less real than the desk. The oak tree's reality is the manifestation of its existence: as a concrete material object, it used to exist to the highest degree; now that it is not concrete, its degree of being has diminished. So, in this view, the metaphysical status is, in some sense, inherent to entities but is not as rigid as the essentialist approach.[15]

[15] I should once again remind the reader of the possibility of identifying reality with fundamentality in which case we don't need to say *a* is more fundamental than *b* because *a* is more real. Instead, we can just say to have a certain metaphysical status is just to have a certain level of reality. This is discussed in more detail in the next section.

But there is a troubling issue here: how should we treat cases of metaphysical status between actual entities of the same category in relation to one another? The oak tree is less real now because it is no longer a concrete material object, and as a result, it relies on what is more real, making the latter more fundamental. But what about part-whole relation, which is considered a prime example of relations of fundamentality? Can we say that an atom is more real than the molecule it composes? Because we do, presumably, intuit that the building blocks are more fundamental than the buildings they make.

Of course, the immediate response to this objection requires one to delve into debates in first-order metaphysics. For instance, one could think, as Jonathan Schaffer does,[16] that building blocks are in no way more fundamental than buildings. Yet, I have avoided getting too involved in first-order controversies up to this point and intend to continue doing so for the rest of this work. I believe, however, that this issue could also be addressed using the notion of reality just as well – though maybe much more controversially than how I connected fundamentality and reality so far. I believe that there is a connection between metaphysical simplicity and reality. Something is said to be simple just in case it is not composed of any parts in any way. The idea here is that if something is simple, then it has to be fully real, and since I take reality to be subject to gradation, I am inclined to say that the less complex an entity is, the more real it would be. But why should simplicity entail reality? It is simple: we identify reality with mind-independence, and simple entities are more independent of the human mind than any compounds.

To see this, let us once again turn to the peripatetic philosophers of the Islamic world. They, too, believed that entities are either simple or compound. A simple entity is indivisible, whereas compounds can be divided into their parts. For most philosophers of the Islamic world, Simples have a higher ontological status than compounds. That is because they are closer to a pure/absolute state of being (or in the case of 'true simplicity', they are *the* pure/absolute state of being). For instance, Mulla Sadra believes that the *true simple* is that which has no part at all (neither material nor mental) and, furthermore, does not have an essence other than its existence.[17] Rather unsurprisingly, such an entity could only be God for Islamic philosophers such as Mulla Sadra. I don't share Sadra's theological convictions, but I do agree with him on associating simplicity with the higher degrees of being because however genuinely mind-independent a compound entity might be, it is still a compound that appears to my human mind in a certain way. A radical view of the kind that is based on the 'reality of simples' is mereological nihilism. Nihilists take composition to be impossible, and in order to make their views compatible with how the world appears to us to be, they speak of compounds as nothing but simples arranged in particular ways (for instance, there is no such a thing as a table but "simples arranged table-wise").[18] I do not favour mereological nihilism and think their problem lies in their binary view of reality-unreality. If we take simples to be more real than compounds, then tables and chairs could still exist but would be assumed to be less real than mereological atoms.

Having simples as more real (and therefore to exist to a higher degree) than compounds is clearly theoretically fruitful. The most fruitful aspect of this view, in my opinion, is the way it could give us a hierarchy of metaphysical status of entities of each kind of being. In regard to material objects, this makes for a theory that favours minimal entities such that sub-atomic particles are among the entities with the highest degree of being, but this does not mean that these very little things are the

[16] Schaffer believes that the maximal entity, The World, is the absolute fundamental. See his (2009) and (2010).
[17] Mulla Sadra (1999), 50-2 (*I.I.*1: §6)
[18] See van Inwagen (1990: 72-76) for a discussion of mereological nihilism.

most real things extant. The world is not just made of material objects, and there could or could not be things simpler than simple material objects. Kris McDaniel takes human consciousness to be at least as simple as mereological atoms, for instance.[19] It is, therefore, wise not to attempt to simplify the structure of reality (and hence the spectrum of existence) by giving the status of the 'most real' to one kind. The world is a lot messier and much less ordered than having a set of the most real, highest-existing entities.

So, I believe the theory of degrees of being is well-equipped to account for the metaphysical status of entities. But there are, of course, some rival views which also claim to account for what makes something more fundamental than another. In what follows, I discuss two such views and show how my version of the theory of degrees of being is superior to both in doing the task in question. The theories discussed below are the Lewisian theory of naturalness and Karen Bennett's theory of building. The immediate question (which I had better respond to right away) is why we should not offer similar treatment for the theory of grounding – after all, grounding is the most popular theory among all theories of fundamentality. I am reluctant to include the theory of grounding in the discussion here for one main reason: grounding is one kind of structural relation among many, and it largely follows the same pattern as other relations of fundamentality; however, it does not justify the way the world is structured. There are two ways that grounding is understood: some take grounding as a form of explanation (often called 'metaphysical explanation) – that 'train conductors are on strike' is explained by their picketing at Paddington Station.[20] Looking at grounding in this way is no more than an instance of relations of fundamentality relating facts to events, objects, etc. Another way to understand grounding is to take it as a form of determination that is nonetheless involved in the process of metaphysical explanation.[21] This latter view is one that is concerned with a variety of kinds of entities, not just facts. Regardless of whether we take grounding as a form of explanation or a form of determination, it still is no more than an instance of relations of fundamentality and, as such, cannot be taken to underly the structure of the world in any generally structural sense. The only way one could argue that grounding is an underlying principle for the way the world is structured is to say that all instances of structural relations are forms of grounding or at least are explainable in terms of grounding. While I find such a claim hard to defend, I could still accept it as a viable option for treatment in this chapter. However, if the grounding were to be taken as such, it would probably sound something more or less similar to Bennett's building relations.[22] As such, I would argue that my treatment of Bennett's theory of building also covers this more structural sense of grounding.[23]

Let us now proceed to the comparison of the theory of degrees of being with the two rival views, which are seen to account for the way the world is structured.

5.3. Naturalness and the Degrees of Being

It is often said that the contemporary interest in the notion of fundamentality, or as I call it 'metaphysical status' of entities, was initiated by the publication of Kit Fine's 'Question of Realism'

[19] McDaniel (2017), 198.
[20] See, for instance, Litland (2015) and Dasgupta (2017) for this view of grounding.
[21] See, for instance, Audi (2012) and Trogdon (2018) for this view of grounding.
[22] In a sense, Jonathan Schaffer's 'On What Grounds What' (2009) is an example of this view about grounding.
[23] For a more detailed discussion of metaphysical grounding as explanation vs. determination, see Skiles and Trogdon (2021).

(2001) with his coining of the new and exciting concept of *metaphysical grounding*. This might well be true, but I do not think that anybody would be surprised if historians of philosophy in the future begin the chapter on 21st-century metametaphysics by David K. Lewis' work on natural properties. In fact, even today, a good number of philosophers interested in theories of fundamentality base their views on the idea of naturalness. This does not mean that these philosophers all agree with Lewis but that their theories of fundamentality respond to Lewis' views in one sense or another.[24] These philosophers take something to the effect of Lewisian naturalness of properties to be the primitive notion that determines something's metaphysical status. My view about degrees of being and its manifestation as the hierarchical structure of reality could indeed incorporate the Lewisian theory of naturalness. Still, I do not agree that naturalness determines the metaphysical status of entities (i.e. what is more fundamental than what), mainly because I do not accept the assumption that naturalness is a primitive notion. So, in this section, I will argue for the superiority of the theory of degrees of being over the theory of naturalness, showing that naturalness is best understood when incorporated into the graded picture of reality as the manifestation of degrees of being.

Let us first begin with a survey of the theory of naturalness. What David Lewis calls 'naturalness' is not by any means his own invention. As we shall momentarily see, one of the ways philosophers of naturalness describe this notion is in terms of "carving reality at joints." This metaphor is borrowed from Plato, who describes the best manner of definition as "seeing together things that are scattered about everywhere and collecting them into one kind" and cutting up "each kind according to species along [their] natural joints, and try not to splinter any part, as a bad butcher might do."[25] Aristotle made a more precise attempt to explain the same concept in his *De Interpretatione,* where he says some terms entail one-ness (perhaps unity) and some don't, 'animal' and 'hoofed' and 'galloping' are all terms which entail one-ness but 'galloping hoofed animal' isn't as such.[26] Both Plato's and Aristotle's ideas were later incorporated into the Neo-Platonist logic as "definition according to essential terms," which entailed that defining something is to limit that thing to all that it is by excluding it from all that it is not (this was done through excluding a species from other species of a genre by applying a differentia).[27] All of these theories have a certain undertone of defining more complex notions up from simpler ones, such that the simpler definition entails metaphysical superiority of what it defines to that which has a more complex definition. That is how this theory of definition is widely associated with Peripatetic theories concerning simplicity and parthood. In any case, These peripatetic theories of definition remained central in philosophical debates in Europe and the Middle East for nearly two millennia, until like many other tools at the Scholastic philosophers' disposal they were snubbed away by modern philosophers until the 20th Century when, first, Bertrand Russell advocated for something of the sort in his 'The Philosophy of Logical Atomism'[28] and then, in a much closer example to the modern theory of naturalness, Frank Plumpton Ramsey argued for the elimination of complex universals. According to Ramsey, no property corresponds to 'either Socrates is wise' or 'Plato is foolish;' we can only speak of properties in the case of atomic propositions.[29] The theory of naturalness, as theorised by David Lewis, is the most recent and perhaps most complete theory of the sort exemplified in these historical instances.

[24] Sider's *Writing the Book of the World* (2011) is the most obvious example but also see Bennett's *Making Things Up* (2017), and Kris McDaniel's *Fragmentation of Being* (2017).
[25] Plato (1997), 542. [*Phaedrus* 265d-e.]
[26] Aristotle (1984a), 27-8. [*De Int.* §11: 20_b15-22]
[27] See §2.2. for a detailed account of this manner of classification.
[28] Russell (1918), 111.
[29] Ramsey (1925), 405-7.

It should be clear by now that the theory of naturalness is a theory about properties. Something is a *property* if it is *attributed to* (or *predicated of*) other entities.[30] Some properties are (or could be) *instantiated*, meaning they are (or could be) exemplified in particular cases. A red brick is an entity which instantiates 'redness' and 'being a brick.' The theory of naturalness in its rawest form states that properties are, in effect, classes of predicables. This is to say that 'redness' is nothing over and above a class of all and only red things regarding their quality of being red. This makes Lewis' theory of properties akin to what David M. Armstrong calls *class nominalism*.[31] Lewis denies that he is a class nominalist about properties;[32] nonetheless, he does identify properties with the sets of all their instances. The only justification for not taking Lewis' view as a class nominalist one is that, as we shall soon see, it dramatically diverges from the simple class nominalism defined by Armstrong.

The core of Lewis' view is that a property such as 'being a brick' is nothing other than the set of all bricks (a set which includes all possible bricks as well as actual ones).[33] This view makes it possible to speak of properties in a more diverse way than the traditionally held view about 'universals.' According to Lewis, properties are disjunctions of any pair or group of entities; hence, there are infinitely many properties. Think of any arbitrary set of entities, and you have a property: for example, the property of "being a carrot in my kitchen or the Tower of London" is a legitimate property which has those few old carrots at the back of my fridge and the Tower of London as its instances. The vast majority of properties are highly gerrymandered, just like the example above; these are what Lewis calls *abundant properties*. But then there is a small minority of properties, which Lewis calls *sparse properties*, which carve reality at joints and are intrinsic and highly specific. Lewis says, "[t]here are just enough of [these sparse properties] to characterise things completely and without redundancy."[34] Sparse properties, unlike abundant ones, capture facts of resemblance: there is a stark difference between the property of 'being a carrot' and the property of 'being a carrot in my kitchen or the Tower of London.' The instances of the former set share many similarities and together make a distinct class which includes only certain entities clearly differentiated from others. This 'distinct' nature of instances of sparse properties is what makes it appropriate for Lewis to name these kinds of properties *natural*: these properties are natural sets of their instances – as opposed to being arbitrary or gerrymandered sets.[35]

The property of 'being a carrot' is natural, but only when compared to the highly arbitrary property of 'being a carrot in my kitchen or the Tower of London'. This is to say that "the distinction between natural properties and others admit to degrees."[36] For Lewis, very few properties are perfectly natural (and, in fact, these are the ones we should call 'sparse'). The rest are *less-than-perfectly-natural*. There is an abundance of this latter kind of properties, but it is important to realise that some of these abundant properties are more natural than others. Lewis claims that being more natural is understood in terms of chains of definability from perfectly natural properties.[37] So, the property *F* is more natural than the property *G* iff the definition of *F* in terms of perfectly natural properties is shorter than that of *G*. Identifying the perfectly natural properties does not seem to be

[30] Orilia & Paoletti (2022) Entities include also 'other properties'.
[31] Armstrong (1989), 8.
[32] Lewis (1983), 344.
[33] Lewis (1983), 344.
[34] Lewis (1986), 60.
[35] Dorr (2021)
[36] Lewis (1986), 61.
[37] *Ibid*.

a straightforward task.[38] However, one could still confidently assume that the definition of the property 'being a carrot' in terms of any natural property is way shorter and less complex than the definition of 'being a carrot in my kitchen or the Tower of London.' This 'graded' view of properties invokes the notion of structure,[39] and that is precisely how the theory of naturalness of properties has been used in the literature on metametaphysics.[40] Perfectly natural properties are complete, i.e. can account for everything else on their own,[41] and are also independent, i.e. nothing could account for their metaphysical status.[42] Every other property is less-than-perfectly-natural. All these abundant properties, the less-than-perfectly natural ones, are in one way or another reliant on sparse ones: "Every contingent truth is made true, somehow, by the pattern of co-instantiation of fundamental properties and relations."[43]The more complex this pattern of co-instantiation is, the longer the definition of the property would be in terms of perfectly natural ones, and, as we just saw, the longer such a definition, the less natural the defined property is.

In short, sparse properties are a small minority among all properties which have three distinctive characteristics: they (a) capture objective similarities, (b) capture the causal power of things, and (c) serve as the minimal ontological ground for all that there is. Every other property is, in one way or another, defined up by the sparse ones, and the length of their definition entails their metaphysical status. Considering the features associated with fundamentality in Chapter 1,[44] it is not surprising at all, then, to see that friends of naturalness take this notion as the sole structural feature of reality.[45]

It is easy to see some essential similarities between the theory of naturalness and my preferred version of the theory of degrees of being (especially concerning the structure of reality as a manifestation of degrees of being). The most obvious similarity is, of course, the graded nature of both theories and, perhaps, the way the degree of naturalness and reality of something is determined. Lewis' theory has 'perfectly natural properties' sitting at one end of an infinitely descending spectrum of less-than-perfectly natural properties, which are more or less natural than other properties relative to their length of definition in terms of perfectly natural properties. In my version of the theory of degrees of being, on the other hand, there is a hierarchical structure to reality with the fully real (i.e. mind-independent) entities providing a basis for a spectrum of decreasing reality of entities relative to the distance of each entity from the fully real ones. The idea then is pretty much the same, but unlike my proposed view about reality, naturalness is ultimately unable to account for the metaphysical status of entities – which is a genuine problem for this theory since this is almost all that naturalness is supposed to do. This is precisely why I posit my view as competing with naturalness in accounting for the metaphysical status of entities instead of opting to

[38] Lewis dedicates a chunk of his 'New Work for a Theory of Universals' to argue that "physics proposes inventories of the natural properties instantiated in our world." (1983: 364) But as Cian Dorr notes this is a deeply controversial claim since it excludes many approaches in philosophy of mind and metaethics, as well as approaches in metaphysics. (2021: §1)

[39] Lewis is, perhaps, among the first philosophers of our time to invoke a theory of fundamentality. See his (1983: 358-9).

[40] See Sider (2011) as the prime example of theories of structure inspired by Lewis' theory of natural properties.

[41] Lewis (1986), 60.

[42] Dorr (2021), §1.

[43] Lewis (1999), 292.

[44] These are *completeness* and *independence* for 'absolute fundamentality,' which should be compared with perfect naturalness, and *irreflexivity*, *asymmetry*, and sometimes *transitivity* for 'relative fundamentality,' which should be compared with more-or-less naturalness. See §1.2.

[45] Side (2011), Introduction.

claim that the two views are identical or tightly overlapping. For the rest of this section, I shall point out some of these issues with the theory of naturalness while showing that my graded view of reality either does not face such problems or is well-equipped to address them comfortably. If my arguments are successful, then my graded view of reality, as the manifestation of degrees of being, should be preferred to the theory of naturalness in doing the task of determining the metaphysical status of entities.

Before aiming for the weaker points of the theory of naturalness, I should mention one seemingly obvious issue with this theory, which is not, in my view, a serious challenge but still needs to be mentioned. As evident in the name of this theory, naturalness is a theory that is solely concerned with one kind of entities, namely properties. However, if a theory is proposed to account for the structure of reality and/or to determine the metaphysical status of entities, then it must be applicable to more than one class of entities – in fact, it must be able to account for all and every kind of entities. So, naturalness cannot be a candidate fit to account for how the world is structured according to the metaphysical status of things.

I do agree with the claim that the theory of naturalness is unfit to account for the structure of the world, but not due to the assumption that this theory deals only with properties and nothing else. There are two ways to dismiss the above criticism: firstly, there are several attempts by defenders of the theory of naturalness to extend the embedded principles of naturalness to apply to entities of other ontological categories. The most obvious example here is 'propositions'. When one accepts principles of naturalness, it is hard for them not to see the similarity between properties and propositions when it comes to naturalness. If the properties of 'being blue' or 'being green' are more natural than the property of 'being bleen' then it is also agreeable to say that the propositions "some things are green" or "some things are blue" are a more natural than "some things are bleen."[46] But 'naturalness' does not have to remain only relevant to those classes of entities which are similar in some ways to properties;[47] even objects could be more or less natural than other objects. Joshua Brown, for instance, proposes that the 'special composition question' (the question about the conditions under which a plurality of objects could add up to compose something)[48] could be best answered with a theory of the naturalness of objects such that something like a carrot would be considered considerably more natural than a grossly gerrymandered object such as the Carrower (which is a composition of a few carrots and the Tower of London).

If the theory of naturalness could be plausibly applied to classes other than properties (as seems to be the case), then the worry mentioned above is unfounded. But even if the critics of naturalness find some ways to dispute each of these applications of naturalness, there is yet another response to their criticism: some philosophers do indeed believe that all that there is could be treated as properties. Some properties, such as 'being a cat,' are clear cases of general properties (what we usually call 'universals'), but that does not limit the class of properties only to such cases. As a cat, Baudolino is an organic material entity, and so he belongs to the general class of 'objects.' Baudolino is not a property, and the worry is that the theory of naturalness would be unable to determine his metaphysical status (i.e. to find the appropriate place that he belongs to in the supposedly hierarchical structure of reality). However, a friend of naturalness could plausibly argue that regardless of Baudolino's kind of being as an 'organic material object,' his metaphysical status could

[46] See Jenkins (2013) for a defence of the naturalness of propositions.
[47] Lewis' implicit treatment of the naturalness of propositions was due to the assumption that propositions are reminiscent of properties (1986: 53-4).
[48] Van Inwagen (1990), 30-1.

be determined in terms of properties: his existence could be phrased as 'being Baudolino,' a singleton property which is then treated as explained above in relation to other properties in order to determine Baudolino's metaphysical status in the world. I find both these responses plausible. But, the theory of naturalness has much bigger problems than this when it comes to accounting for the metaphysical status of entities.

The first of these issues is the difficulty with the identification of perfectly natural properties. Perfectly natural properties are the minority among all properties that could carve reality exactly at joints because they capture facts of resemblance as well as the causal power of things and are ultimately responsible for the formation of all other properties. All in all, perfect naturalness is a powerful notion, but it is the ultimate weakness of the Lewisian theory of naturalness as well because the entire theory of naturalness heavily relies on this class of properties. Perfectly natural properties are essential to the theory of naturalness because the gradation of properties is determined by the length of the definition of each property in terms of perfectly natural ones. To define a property in its terms, we must have a clear grasp of which perfectly natural properties there are. Without knowing what is perfectly natural, we cannot offer such definitions, let alone measure the length of those definitions. That is why an infinite chain of more-or-less naturalness could not even be an option for a Lewisian.[49] But this need for knowing what properties are perfectly natural is not responded to by any manner of consensus. As we have seen, David Lewis tasks fundamental physics by providing an inventory of perfectly natural properties.[50] So, for him, properties such as 'being charged' or 'having mass' are to be treated as perfectly natural. It is obvious that Lewis' choice of fundamental notions of physics as perfectly natural properties is motivated by their minimality: presumably, nothing could define these notions, and they ultimately define everything else. But, many other philosophers disagree with Lewis over his choice. Jonathan Schaffer, for instance, believes that a scientific conception of sparse properties is more intuitive than the fundamental one, proposing that we may draw natural properties from any level of the hierarchy of reality as long as the property in question is scientifically legitimate.[51] Schaffer argues that having perfectly natural properties as those provided by fundamental physics could only satisfy the minimality characteristics of perfect naturalness, while they fail to capture facts of resemblance and causal power of things.[52] But if we take Schaffer's view, we might have to succumb to the idea that the properties of 'being a mountain' and 'being charged' are equally natural since there is no gradation in perfectness. Yet another problem with both views is that from neither conception of perfectly natural properties, we can arrive at a definition for nonphysical entities, such as the isosceles triangle, and although Lewis is a physicalist, he still needs to be able to account for properties that are not essentially physical. To address this latter problem, many other options for 'perfect naturalness' have been proposed, ranging from semantic properties to indexed ones, but still, none of these was accepted by more than a few.

The graded view of reality which I proposed does not face a problem of this sort, mainly because my definition of it, in line with the classical definition, is not particularly controversial – at least not in its initial, absolute form. I define reality in terms of 'mind independence,' claiming that something *A* is real if *A* exists regardless of anyone's perception and/or conception. Now, in my theory, mind

[49] Lewis seems to suggest the possibility of such an infinite chain in which properties get ever more natural in his (1980), but he never speaks of this possibility after developing the theory of naturalness later. I assume that he sees the same difficulty with infinite descent and that is why he abandoned this suggestion.
[50] Lewis (1983), 364.
[51] Schaffer (2004).
[52] *Ibid*, 98.

independence is at the base of the hierarchy of reality, entailing that there are some things, perhaps mostly physical, which exist mind-independently. The only entities that could be said to be absolutely real are these mind-independent ones, and all else are less real than these because they rely on them directly or indirectly. So, in a range of more or less real entities, all we need is a clear indication of the absolutely real bases upon which everything else relies. In fact, the theory of degrees of being could incorporate naturalness at this early point: I have been saying repeatedly that my view is purely meta-ontological and, as such, is not bound to any first-order theory of metaphysics. At several junctures, I showed how my theory could be employed by different, even rival theories. As we shall see at the end of this section, I do not take naturalness to be a primitive notion, and at best, I find it a first-order metaphysical ideology. I believe a friend of naturalness could benefit from the theory of degrees of being by accepting reality as the manifestation of being and then associating naturalness with reality, too: To say "property *F* is more natural than property *G*" is defined as "*F* is more real than *G*."[53] To be perfectly natural could then be understood as existing entirely independent of anyone's perception or conception.

We are getting ahead of ourselves here. Failing to offer a coherent explanation for what is perfectly natural is, indeed, a weakness of the theory of naturalness, but in the end, this whole issue could be dismissed as a first-order dispute that has little bearing on the effectiveness of the general idea. After all, there is no theory without some fundamental assumptions, and though we can blatantly reject a theory's assumptions, doing so could not be taken as a serious challenge against any views. Challenging the theory of naturalness could be much more effective if we assume the first-order claims to move on to how naturalness is supposed to do its main task, i.e. accounting for the metaphysical status of entities. So, let us assume there could be an agreement over what is perfectly natural. Let us accept David Lewis' version as the correct view about perfectly natural properties (mainly because his view is the most discussed view of naturalness). Lewis' assumption that perfectly natural properties are drawn from notions of fundamental physics has its root in the apparent minimality of these notions: nothing explains them, and they are involved, one way or another, in explaining every other physical thing. We already saw that these perfectly natural entities ground a spectrum of more-or-less naturalness by providing bases for the definition of properties, such that a property *F* is more natural than *G* iff *F* has a shorter definition than *G* in terms of perfectly natural properties. Now, what does this 'length of definition in terms of perfectly natural properties' mean? In the absence of any explanation from David Lewis himself, we are left to make sense of this enigmatic proposition ourselves. The properties of 'being positively charged' and 'having mass' are drawn from fundamental physics and are, presumably, perfectly natural. However, the property of 'being a proton' is not perfectly natural, even though it is a highly natural property. It is not a perfectly natural one because, firstly, 'being a proton' is not a fundamental notion in physics and, secondly, because it is defined in terms of properties more natural than itself (in this case, those properties are perfectly natural). But 'being a proton' is a highly natural property because its definition in terms of perfectly natural properties, something like 'being positively charged with a mass of 1 Dalton,' is very short.

This measuring of the length of definition is fine as long as we are dealing with physical structures, especially at the atomic level, but as soon as we expand the theory to things of everyday life, let alone nonphysical things, it becomes extremely taxing very quickly. Let us see this in some examples: the definition of 'being a proton' is shorter than the definition of 'being a water molecule,' and we can imagine why that might be the case without even attempting to define water molecules in terms

[53] McDaniel (2017), 204.

of perfectly natural properties. But what if we are to compare the naturalness of properties that are much more complex than 'being a water molecule? Say, we are asked to compare the naturalness of the property of 'being hollandaise sauce' and the property of 'being Gravy.' One might still attempt to guess which is more natural, but if we put aside our intuitive guesswork, could we measure the length of the definition of either of the two and then compare them? It seems to me that to define either property in terms of perfectly natural properties, i.e. defining them up from properties such as 'having mass' or 'being charged,' is nearly impossible. Take the property of 'being gravy': there are different properties, each partly involved in defining the property of 'being gravy,' and each of those properties themselves is defined by a variety of further properties; so, if defining the property of 'being gravy' is at all achievable it will have an extremely long and complicated definition – which is also the case with the property of 'being hollandaise sauce.' Now, even if defining these two properties in terms of perfectly natural ones was possible, how are we to measure their length? Is it the number of properties involved that implies the definitional length (and does that involve the width as well as length, meaning do we add up those properties that partially define one property in the entire story)? Or is it how long it takes to utter the whole definition in minutes and seconds? There could be other options, but none would be more sensemaking than the one mentioned here. It seems the way the theory of naturalness is supposed to determine the metaphysical status of entities is not at all different from the Old Entish language![54]

The issue demonstrated above is only about straightforward physical entities. It would, of course, be much more complicated to define, for example, properties of abstract entities (e.g. 'being a prime number bigger than 199') or account for historical events (e.g. 'the walking of Emperor Henry IV to Canossa'). Here, even the guesswork that one might employ in cases of physical entities becomes void. Finally, to all the definitional nightmare noted above we should add the absurdities which could arise from taking 'length of definition in terms of perfectly natural properties' as determining element for the metaphysical status of entities: there could be some highly gerrymandered properties which are defined only in terms of fundamental notions of physics (say being a 'neutrino or electron or proton one meter from a neutrino or a proton or…'[55]) which are considered much more natural than many seemingly natural properties, such as 'being an oak tree.' So, considering all these, I see nothing natural about defining properties in terms of perfectly natural properties in the way Lewis has it.

Here, too, my theory of grades of reality proves to be superior to naturalness, despite the apparent similarities. In my view, something's metaphysical status (i.e. more or less fundamentality compared to other entities) is determined by the level of reality it enjoys, and the level of reality is 'measured' in terms of how mind-dependent something is compared to the absolutely mind-independent entity it is ultimately based on.[56] The so-called 'distance' that is measured here is not in any sense definitional but is the distance of an entity (object, property, etc.) from its mind-independent bases. In my view, the definition of the water molecule has very little to do with the metaphysical status of the property of 'being a water molecule;' instead, water molecules form a basis for the property of 'being a water molecule.' Measuring the distance of different entities from their bases is, therefore, a lot more straightforward (though not uncontroversial).

[54] Old Entish is a fictional language described (and to some extent developed) by J.R.R. Tolkien for the race of Ents (humanoid creatures which were made to protect the trees). This language is described as long and sonorous: to refer to any object or concept in Old Entish one has to engage in a long discussion of its origins and the state it is in presently. See Tolkien (2007) for a detailed discussion.

[55] Example borrowed from Daniel Nolan (2005: 24).

[56] See Chapter 4 for a detailed account of this view.

Let us go back to the condiments we had out: a little jug of gravy is on the table, and we also have some hollandaise sauce in a pot. These condiments are equally real because they exist (as human-made material constructs) independent of our minds. Each of these viscous things is involved in the formation of a less real entity, which is their respective property: the properties of 'being gravy' and 'being hollandaise sauce' are less real than each of the condiments on the table in my dining room because (supposedly) these properties, like all other properties, do not exist independent of the human mind. However, not all properties are equal in their grade of reality. The property 'being a condiment', already evoked in this paragraph several times, is less real than each of the earlier two properties because 'being a condiment' is a property that is itself formed of properties more particular than itself, such as 'being gravy' and 'being hollandaise sauce'. So the property of 'being a condiment' is twice removed from its mind-independent bases (including the ones on my dining table), whereas the properties of 'being gravy' or 'being hollandaise sauce' are only once removed. It should be obvious here that measuring the metaphysical distance in my theory is much more straightforward than Lewis' measuring of definitional distance. Admittedly, the example I used here is ostensibly simple and easy to deal with, and there could be cases much more complicated than this which could cause problems for my theory, but it was in response to this very example that the theory of naturalness began to show its serious shortcomings. So, my theory of graded reality (as the manifestation of degrees of being) is better equipped to explain the hierarchical structure of the world than the theory of naturalness.

One last issue with the theory of naturalness: one could ask whether 'naturalness' itself could be analysed in its own terms. This is simply to ask whether 'being a perfectly natural property' is a perfectly natural property. Ted Sider thinks so. He argues that there is a variety of perfectly natural (what he calls 'structural') properties with almost nothing in common. So, the only way to define perfect naturalness is to offer a disjunctive definition for this notion, a somewhat impossible definition.[57] This effectively establishes this notion in the following way: "To be perfectly natural is to be charged, or to have mass, or to be a set member, or…" and considering that a reductive account of this sort is impossible, then naturalness must itself be perfectly natural (and therefore primitive).[58] This, however, is begging the question at best. Sider here appears to be implicitly assuming that perfect naturalness is the only way in which naturalness could be analysed, and since it could not be analysed in this term, it must be perfectly natural. However, this implicit assumption is entirely unfounded. Why shouldn't we be able to analyse naturalness in terms of the degree of being (or in terms of degrees of reality, which itself is analysable in terms of degrees of being)? I showed in some instances above that naturalness could be seen as part of the fabric of reality, so it should not be very difficult to see how naturalness could be analysed in the way I propose.

The notion of naturalness clearly has existential implications. These implications could be seen in two interrelated ways, both of which are essential to naturalness: that naturalness is itself a property. The property of 'being charged' is perfectly natural, meaning it has the second-order property of 'being perfectly natural.' Now, If something has a property, that thing is an entity (meaning it is existent). From this, we can deduce that if a property is natural (i.e. if a property has the property of being natural), then that property is an entity. Even if we accept the claim that naturalness itself is a natural property by attributing this property to naturalness, we imply the existence of naturalness. In any case, as I argued in §3.4, having a property does not solely imply the existence of the object that the

[57] Sider (2011), 141. The view that there are a variety of perfectly natural properties is not Lewis' view but is perhaps more plausible than Lewis' view since it can account for abstract entities without much complication.
[58] McDaniel (2017), 212.

property is attributed to, but it also implies the existence of the property which is being attributed. Naturalness *exists,* and as a result, it enjoys a degree of being. Even if naturalness is able to account for the metaphysical status of things, it still is accounted for by another notion, and so that more basic notion, i.e. being, accounts not only for naturalness but for all those things that naturalness accounts for.

5.4. Building and the Degrees of Being

Naturalness is a more developed form of the essentialist view about fundamentality (discussed in §5.1), meaning it takes entities of the world to be essentially of certain metaphysical status. The property of 'being a carrot' is more natural than the property of 'being a carrot in my kitchen or the Tower of London' not because there is a relation of 'more/less natural than' holds between them but because the property 'being a carrot' inherently carves reality closer to joints than the property 'being a carrot in my kitchen or the Tower of London.' Now, closer to the relativist view about fundamentality (the view that things are more or less fundamental as a result of obtaining a relation of fundamentality between them) is Karen Bennett's theory, which she calls *building* defended in her *Making Things Up* (2017). Building relations are, as it was with Lewis' theory of naturalness, another way to justify relations of fundamentality as structural features of reality. So, In this section, I shall first present Bennett's view and then explain why I believe my version of the theory of degrees of being is preferable in justifying relations of fundamentality and accounting for the hierarchical structure of reality.

Bennett's main project is not that of identifying the metaphysical status of things. She sees clear patterns in the structure of reality, indicating that some things 'give rise to,' 'generate,' or 'make up' other things in many different ways. Some examples of these are mereological composition, supervenience, emergence, set-formation, grounding, and even (somewhat controversially) causation.[59] Bennett does not think that all and every one of these relations amounts to what is generally known as relations (or structures) of fundamentality. In her view, relations of fundamentality are involved in some of these cases. Still, they should themselves be defined in terms of another notion that accounts for the similarities between relations of fundamentality and those other relations which are formally very similar to relations of fundamentality but ought not to be understood as instantiating fundamentality (e.g. causation).[60] This is what she calls 'building.'

Now, Bennett does not offer a straightforward definition for 'building', but she has good reason not to do so: building, to her, is not a general kind of relation which could work as an umbrella term to neatly include all kinds of relations mentioned above. For her, 'building' is disjunctive but not gerrymandered. Those relations mentioned above (emergence, grounding, dependence, etc.) are building relations because their instances involve something 'giving rise to another' *or* 'generating another' *or* 'giving bases for another' or 'making another thing up.' So, the straightforward definition might not be possible in this case, but 'building' is more or less easy to characterise. There are three characteristics that Bennett mentions early on in her book which are not dissimilar to characteristics of relations of fundamentality, as I discussed in Chapter 1:

[59] For some of the critical responses to Bennett's inclusion of causation among building relations see Audi (2020), Schaffer (2019), and Rosen (2019).
[60] Bennett (2017), §2.1

i. Directedness: building relations are irreflexive and asymmetric
ii. Necessitation: The entity that is built is necessitated by what builds them
iii. Generation: The entity that is built exists or obtains only because what builds them exists or obtains.[61]

One of the most significant outcomes of Bennett's theory is the link between building and 'more fundamental than' relations, or what she calls 'B→MFT'.

> **B→MFT**: for all *x* and *y*, and all building relations *B*, if *x* at least partially *B*s y, then *x* is more fundamental than *y*.[62]

This view has some clear advantages in explaining what is more fundamental than another, the most obvious of which is that you can just look at what builds another thing, and there you have the entity on the left as more and the entity on the right as less fundamental. But the first issue that Bennett faces is whether she takes relations of fundamentality to hold only between those entities directly involved in a particular building instance. Say, a water molecule here in Ramsgate is built of certain hydrogen and oxygen atoms, and therefore, those atoms are more fundamental than the water molecule. However, the atoms which build this particular water molecule are not in any way involved in the formation of particular cellulose in the body of a tree in northern Iran. Does this mean that the hydrogen and oxygen atoms in Ramsgate are not more fundamental than the organic compound in northern Iran only because they are not involved in the formation of the latter?

Bennett doesn't think so.[63] Instead, she expands the characterisation of fundamentality to a highly disjunctive one taking something *a* to be more fundamental than something *b* in any of the following ways: (i) *a* at least partially builds *b*, or (ii) *a* is absolutely fundamental and *b* is not, or (iii) *a* is fewer building steps away from the absolute fundamental entities in its unique chain than *b* is from the absolute fundamental entities in its respective unique chain, or (iv) *a* builds something *c* that builds *b* even if the relation between is not transitive,[64] or (v) *a* belongs to some kind *K* and *b* belongs to some kind *J* and entities of *K* typically build entities of *J*.[65] More importantly, Bennett does not believe that there is a general building relation that is metaphysically prior to all specific building relations mentioned earlier; building, Bennett believes, is always indexed.[66]

One can easily see how closely this account of fundamentality resembles my view of grades of reality. Nonetheless, let us remind ourselves of these similarities: I believe reality is graded in a way that some entities are more real than others (which, naturally, makes some entities less real than others), and some entities are equally as real as other entities. This gradation underlies the structure of reality, meaning that due to this gradation of more/less/equal reality, the world is hierarchically structured. I argued that we can identify the degree of reality something enjoys by measuring that thing's distance from its mind-independent basis/bases. As I explained in Chapter 4, this claim implies many features which correspond roughly to the five different ways Karen Bennet takes to imply MFT relations. Something *a* is less real than something *b* if *a* is mind-dependent and *b* is mind-

[61] *Ibid*, 32.
[62] Bennett (2017), 40.
[63] *Ibid*, 138.
[64] This is what Bennett calls 'ancestral.' Say in set formation *a* builds {a} but since *a* is not a member of {{a}} we cannot say that *a* builds {{a}} even transitively. Bennett says a is an ancestor of {{a}} nonetheless since it was involved in the formation of {a} which (at least partially) builds {{a}}. See Bennett (2017:157).
[65] Bennett (2017), 161.
[66] *Ibid*. §6.6 (especially 162-166).

independent, or if *a* and *b* are both mind-dependent, but *b* is closer to its mind-independent basis/bases than *a* to its own mind-independent basis/bases. I also said, not dissimilar to Bennett's condition (v), that the reality of entities is first determined by the kind of being they are and then measured in particular within that kind. From my viewpoint, this all depends on one's first-order assumptions; for instance, if I take 'concreteness' to entail mind-independence, then a material object, such as this desk, is ultimately more real than a mathematical object, such as √2. And then, when it comes to whether a certain concrete object is more real than another, we can again put different concrete entities in different kinds, or we can proceed with another way of identifying degrees of reality based on our first-order theories (e.g. the simpler an entity is, the less it depends on human mind).

So, at first glance, my view bears some close similarities to Bennett's, but as I said at the beginning of this section, I intend to show how my view is superior to hers. The superficial similarities between Bennett's view and mine about the structure of reality end at this level. The deeper in the theories we dig, the more these two views diverge. So, let us see how they differ and why my graded view of reality (and ultimately the theory of degrees of being) should be preferred.

The first issue with Bennett's view is that her 'building relations' are not that different from what others call relations of fundamentality. Bennett argues that relations of fundamentality are but one kind of relation among many, which could be characterised as building relations. But that seems to be only a matter of naming something differently without any substantial difference. To some philosophers, emergence is an instance of relations of fundamentality.[67] Ontological dependence is widely associated with fundamentality,[68] as are grounding and supervenience.[69] These are the same relations that are characterised as building relations by Bennett. Of course, Bennett has a fair point in aiming to distinguish between what we might call relations of fundamentality and those which are kinds of relations in which something gives rise to another without really being 'more fundamental than' what it gives rise to (causation is the clearest case, but supervenience could also prove to be an instance of such relations which do not imply fundamentality). However, by introducing this new class of relations, Bennett does not solve the problem I aim to address here – namely, what justifies something's metaphysical status. Say, relations of fundamentality are characterised as instances of building relations; the question remains that what gives something the metaphysical status of being what builds the other. The answer is still either that building is a primitive notion or that it could be explained in terms of something else – just as it was with relations of fundamentality. Bennet seems to believe that building is a structural relation that needs no further justification. In this respect, her treatment of how the world is structured is no different than Kit Fine's treatment (who takes fundamentality to be primitive) or David Lewis' (who thinks the same of the sparse properties).

One could object now that I do the same with my notion of reality. Bennett introduces a further notion (i.e. building) which underlies relations of fundamentality in order to explain how the world is structured. This, the critique of my view would suggest, is what reality and its gradation do in my theory. I disagree: in the case of 'building,' we are only replacing fundamentality with the same kind of relation (albeit more inclusive), whereas according to my theory, what justifies the metaphysical status of things is not in any sense similar to the structural relations it aims to justify. From the beginning of my thesis, I claimed that even though "fundamentality" is a familiar notion, we are not entirely clear about what makes something more fundamental than another. Bennett seems to

[67] See Barnes (2012) and Morganti (2015).
[68] See Koslicki (2012) and Janson (2016).
[69] See Hoeltje *et al* (2013).

suggest that something *a* is more fundamental than something *b* iff *a,* in one way or another, builds *b*.[70] I think what Bennett suggests solves very little; we are now saying that *a* MFT *b* because *a* builds *b*. The question remains: instead of asking what makes *a* more fundamental than *b,* we now must ask what makes *a* such that it could build *b*. However, according to my version of the theory of degrees of being, the question could be answered straightforwardly (if not uncontroversially): *a* MFT *b* because *a* is more real than *b*. Now, *a* is more real than *b* because *a* is closer to its mind-independent bases than *b* is to its respective mind-independent bases. Bennett's building relations are substantially similar to relations of fundamentality. As such, they are not fit to justify what is more fundamental than another, whereas my grades of reality are substantially different than any structural relations, and as a result, they could be used in explaining how those structural relations are obtained.

One final advantage of my view compared to Bennett's has to do with our ideologies. I call a feature of a theory ideological in case that feature is both essential to the theory and is taken for granted without necessarily being argued for. More simply put, ideologies are sets of assumptions in theories. As I have already mentioned, Bennett takes building to be a primitive notion, meaning that she does not find a need to explain or justify these relations. Jessica Wilson, whose understanding of relations of fundamentality is very close to Bennett's, also considers fundamentality primitive ("the fundamental is, well, *fundamental,*" she writes).[71] And as we have seen in the previous section, for David Lewis (and many Lewisians), naturalness is a primitive notion. I find all these assumptions disconcerting. It is hard for me to fathom how something could be taken as primitive when we often go on to somehow explain that thing (whether by defining it or by characterising it in some manner). I take a notion to be primitive only if one fails to explain that notion in any way possible. A genuine primitive notion, then, is clearly the foundation upon which we can begin to explain how the world is structured. As we have seen in Chapter One, fundamentality is characterised with some precision over the last few decades, so it cannot be taken to be a primitive notion. Building relations are essentially similar to relations of fundamentality, so they could also be characterised in the same way, or else, as I mentioned above, there is a disjunctive way to explain what counts as a building relation. The same also goes for naturalness (as we saw in the previous section, sparseness is defined in terms of 'facts of resemblance,' 'causal power,' and 'completeness').

On the other hand, when it comes to my view about levels of reality, the underlying notion is "degrees of being." Existence is, indeed, one of the very few notions that are truly primitive. We cannot explain what it is for something to exist or characterise existence in any way. Now, I argued that the metaphysical status of entities (i.e. something's being more or less fundamental than another) is justified in terms of levels of reality. The reality, in turn, is graded as such because it manifests the degrees of being. So, *a* MFT *b* is ultimately due to *a*'s and *b*'s degrees of being. So, existence here explains how the world is hierarchically structured, and since existence is a primitive notion, it is an obvious choice for the task. Degrees of being is, therefore, a superior theory to any other in order to justify the metaphysical status of entities.

One could argue here that my version of degrees of being implies what Karen Bennett calls the *generalist existence monism*. According to Bennett, the generalist existence monism is the view that "[t]here is only one highly general building relation that somehow underwrites all the more specific

[70] This, according to Bennett, does not have to be a direct or active building relation. The possibility of *a* building *b* is enough for *a* to be more fundamental than *b*.
[71] Wilson (2014), 560.

talk."[72] Supposedly, this version of the theory of degrees of being could be a generalist existence monist view because existence is taken as univocal and underlies all the structural relations. But that is not how I characterised being and its degrees: I did not claim that degrees of being provide us with a unified and general structure upon which all other structures rely. Instead, I argued that being has degrees, and that these degrees correspond to kinds of entities in the world. The entities are in structural relations with other entities (within or outside their kinds) according to the degree of existence they enjoy, but the degrees of being are not directly involved in how the world is structured. To put it simply, being and its degrees are not part of the structure of the world. What *is* part of the structure of the world is reality – which I take to be the manifestation of being and hence is graded. But, is reality a "general building relation that somehow underwrites all the more specific talk?" I explained in Chapter 4 that I don't take reality to be one unified structure. In my view, reality is indexed just as building relations are for Bennett. Reality is nothing but the totality of all that there is, and so it includes many different structures without having them unified according to any single structure. The only thing that 'underwrites' them is being and its degree, but that is not itself structural.

5.5. Conclusion

With this, I bring my defence of the theory of degrees of being as the underlying principle for the structure of the world to an end. I started the present work by giving an overview of the literature on fundamentality and the structure of the world and posed the question of 'what makes something more fundamental than another.' The rest was my long answer to that question. I argued in the course of this thesis that being is the only genuinely 'primitive' notion, and if we are to explain how the world is structured, we ultimately need to do so in ontological terms. So, I went on to examine two major views about being, *viz.* ontological monism and pluralism. I then argued that neither of these views is sufficient in explaining the way things are, and so I offered a view which could potentially be agreed upon by advocates of each theory. This middle-ground view was what I called the theory of degrees of being: that being has one sense corresponding to different kinds of being through its degrees of intensity enjoyed by those different kinds. After showcasing the application of my version of the theory of degrees of being through some first-order metaphysical views, I finished this thesis by claiming that the theory of degrees of being, described as such, is more successful than rival theories in justifying the metaphysical status of entities (i.e. their more or less fundamentality as compared to other entities).

One can object that these are but two among many theories, and by showing the theory of degrees of being is superior to these two, we cannot dismiss other contenders. That is certainly true, but I chose these two theories to represent the theories more commonly held among the philosophers of fundamentality in the last few decades. The majority of theories of fundamentality, as I mentioned earlier (and also in Chapter One), are either Lewisian or Neo-Aristotelian and Bennett's model represents the Neo-Aristotelian views in a way that it incorporates some of the marginal theories of fundamentality as well. The motivation behind this chapter (and, more generally, this thesis) was not to dismiss all other theories of metametaphysics but to show that the theory of degrees of being is a strong contender in explaining how the world is structured.

[72] Bennett (2017), 23.

Epilogue

This project, in effect, amounts to a defence of the theory of degrees of being, enveloped by a particular approach or treatment of the structure of the world. This particular approach to the structure of the world is what we might call the "layered model of reality"[73] which, as I showed in this thesis, could be best explained in terms of degrees of being. But the theory of degrees of being offered here is to some extent a new view that does not always agree with other similarly named theories. Kris McDaniel is the most prominent advocate of a theory of degrees of being, for instance, but his view is closely associated with ontological pluralism. In contrast, my version of the theory of degrees of being is essentially a middle-ground view such that both monists and pluralists about existence could potentially accept it. In my view being has one *sense*, but what the word "being" refers to comes in degrees, corresponding to different *kinds* of being. What constitutes this correspondence between the sole graded sense of being and various kinds of entities is the basis for the layered structure of the world.

One of the most challenging aspects of writing this thesis was to keep my distance from engaging with issues in first-order metaphysics – not just due to the lack of space but also because by engaging in such debates I would have risked my meta-ontological view being associated with particular (sometimes controversial) first-order theories. Instead, I needed to show in this thesis that the version of the theory of degrees of being that I defend could be utilised by philosophers of different (opposing) camps in first-order debates, to argue for their views on the basis that is agreed upon by others too. As such, as long as we agree on the 'graded structure' of the world, the theory of degrees of being could be utilised in our worldview regardless of our ontological commitments. A mereological nihilist could explain how only mereological atoms truly exist in terms of the degrees of being, making tables and chairs not unreal but only less real than mereological atoms. In the same way, the debates about the 'reality' of mathematical objects would be more about degrees of reality. Taking a post-Quinean approach, committing to the existence of only some entities, makes every theory vulnerable to endless ontic discussions. By taking a maximalist approach such as my version of the theory of degrees of being, subjecting everything to degrees, we move passed such apparently fruitless discussions.

There are, however, many questions left unanswered in this thesis, particularly regarding the application of this version of the theory of degrees of being in first-order views. Particularly interesting for me are questions of determining the way the world is structured if we accept the proposed relationship between being and reality in Chapter 4. I argued in that chapter that one way to understand the structure of the world is according to the concrete-abstract spectrum, where concreteness implies a higher degree of existence because of its association with mind-independence. Another spectrum that I suggested was that of actuality-potentiality. There I explained that the highest degree of being in this regard could be necessary beings, among the examples of which are mathematical truths. But true mathematical statements are admittedly abstract entities; so, in one respect (the concrete-abstract spectrum) they are on the lower side of the spectrum of existence, and in another (the actuality-potentiality spectrum), they are among the entities that enjoy the highest degree of being. So, can entities exist to differing degrees relative to different spectra? If not, could these seemingly conflicting gradings of existence be explained in any coherent way? Questions such as these have tickled my mind during the later stages of my PhD, and

[73] Kim (1993), 337.

now that I have laid the foundation of this particular version of the theory of degrees of being, it is time to begin thinking more about how this theory is utilised.

Bibliography

Aquinas, T. (1993). *Selected philosophical writings* (T. McDermott Trans.). Oxford: Oxford University Press.

Aristotle. (1984a). In Barnes J. (Ed.), *Complete works of Aristotle*. Princeton, NJ: Princeton University Press.

Aristotle. (1984b). In Barnes J. (Ed.), *Complete works of Aristotle*. Princeton, NJ: Princeton University Press.

Armstrong, D. M. (1989). *Universals: An opinionated introduction*. Colorado: Westview Press.

Armstrong, D. M. (1993). A word of states of affairs. *Philosophical Perspective, 7*, 429-440.

Armstrong, D. M. (1997). *A world of states of affairs*. Cambridge: Cambridge University Press.

Audi, P. (2012). Grounding: Toward a theory of the *in-virtue-of* relation. *The Journal of Philosophy, 109*(12), 685-711.

Audi, P. (2020). Bennett on building. *Inquiry, 63*(7), 677-692.

Austin, J. L. (1962). *Sense and sensibilia*. Oxford: Oxford University Press.

Avicenna. (1996). حی بن یقظان. In J. Modarres Sâdeghi (Ed.), *Stories of shaikh-i ishrâq* [قصّه‌های شیخ اشراق] (pp. 71-81). Tehran: Nashr-e Markaz.

Avicenna. (2009). *الهیات از کتاب شفا*. Tehran: Amir Kabir Publishing.

Baker, L. (2002). Replies. *Philosophy and Phenomenological Research, 64*(3), 623-635.

Barcan, R. C. (1946). A functional calculus of first order based on strict implication. *Journal of Symbolic Logic, 11*(1), 1-16.

Barnes, E. (2012). Emergence and fundamentality. *Mind, 121*(484), 873-901.

Barnes, E. (2018). Symmetric dependence. In R. Bliss, & G. Priest (Eds.), *Reality and its structure: Essays in fundamentality* (pp. 50-69). Oxford: Oxford University Press.

Barnes, J. (1995). Metaphysics. In J. Barnes (Ed.), *The Cambridge Companion to Aristotle* (pp. 66-108). Cambridge: Cambridge University Press.

Bennett, J. (1955). Iterated modalities. *The Philosophical Quarterly, 5*(18), 45-56.

Bennett, K. (2011). Construction area (no hard hat required). *Philosophical Studies, 154*(1), 79-104.

Bennett, K. (2017). *Making Things Up*. Oxford: Oxford University Press.

Bernstein, S. (2021). Could a middle level be the most fundamental? *Philosophical Studies,* , 1-14.

Bliss, R. (2013). Viciousness and the structure of reality. *Philosophical Studies, 166*(2), 399-418.

Bliss, R. (2014). Viciousness and circles of ground. *Metaphilosophy, 45*(2), 245-256.

Bliss, R., & Priest, G. (2018a). The geography of fundamentality. In R. Bliss, & G. Priest (Eds.), *Reality and its Structure: Essays in Fundamentality* (pp. 1-35). Oxford: Oxford University Press.

Bohn, E. D. (2018). Indefinitely Descending Ground. In R. Bliss, & G. Priest (Eds.), *Reality and its Structure: Essays in Fundamentality* (pp. 167-181). Oxford: Oxford University Press

Booth, A. R. (2017). *Analytic Islamic Philosophy*. London: Palgrave Macmillan.

Brentano, F. (1975). *On Several Senses of Being in Aristotle* (R. George Trans.). Oakland, CA: University of California Press.

Bricker, P. (2006). Absolute actuality and the plurality of worlds. *Philosophical Perspective, 20*(1), 41-76.

Brown, S. (1965). Avicenna and the unity of the concept of being: The interpretations of Henry of Ghent, Duns Scotus, Gerard of Bologna and Peter Aureoli. *Franciscan Studies, 25*, 117-150.

Callender, C. (Ed.). (2011). *The Oxford Handbook of Philosophy of Time*. Oxford: Oxford University Press.

Cameron, R. P. (2008). Turtles all the way down: Regress, priority and fundamentality. *Philosophical Quarterly, 58*(230), 1-14.

Carman, T. (2003). *Heidegger's Analytic: Interpretation, Discourse, and Authenticity in Being and Time*. Cambridge: Cambridge University Press.

Carnap, R. (2002). *The Logical Syntax of Language* [Logische Syntax der Sprache] (A. Smeaton Trans.). United States: Open Court.

Carnap, R. (2003). *The Logical Structure of the World* [Der Logische Aufbau der Welt] (R. A. George Trans.). Chicago: Open Court.

Charlton, W. (Ed.). (1970). *Aristotle Physics: Books I and II*. Oxford: Oxford University Press.

Chisholm, R. (1970). Events and propositions. *Noûs, 4*(1), 15-24.

Chisholm, R. M. (1996). *A Realistic Theory of Categories*. Cambridge: Cambridge University Press.

Clark, R. (1988). Vicious infinite regress arguments. *Philosophical Perspective, 2*, 369-380.

Cohen, S. M., & Reeve, C. D. C. (2020). Aristotle's metaphysics. Retrieved from https://plato.stanford.edu/archives/win2021/entries/aristotle-metaphysics/

Contessa, G. (2014). One's a crowd: Mereological nihilism without ordinary-object eliminativism. *Analytic Philosophy, 55*(2), 199-221.

Cook, R. T. (2012). Impure sets are not located: A Fregean argument. *Thought, 1*(3), 219-229.

Corfield, D. (2020). *Modal Homotopy Type Theory*. Oxford: Oxford University Press.

Correia, F. (2010). Grounding and truth-functions. *Logique Et Analyse, 53*(211), 251-279.

Correia, F., & Schnieder, B. (2012). Grounding: An opinionated introduction. In F. Correia, & B. Schnieder (Eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (pp. 1-36). Cambridge: Cambridge University Press.

Cresswell, M. J. (1986). Why objects exist but events occur? *Studia Logica, 45*(4), 371-375.

Cross, R. C., & Woozley, A. D. (1964). *Plato's Republic: A Philosophical Commentary*. London: Macmillan.

Cruse, D. A. (1979). On the transitivity of part-whole relation. *Journal of Linguistics, 15*(1), 29-38.

Currie, G. (1990). *The Nature of Fiction*. Cambridge: Cambridge University Press.

Daly, C. (1997). Tropes. In D. H. Mellor, & A. Oliver (Eds.), *Properties* (pp. 140-159). Oxford: Oxford University Press.

Dasgupta, S. (2017). Constitutive explanation. *Philosophical Issues, 27*(1), 74-97.

deRosset, L. (2010). Getting priority straight. *Philosophical Studies, 149*(1), 73-97.

deRosset, L. (2013). Grounding explanation. *Philosopher's Imprint, 13*, 1-26.

Descartes, R. (1996). *Meditations on First Philosophy* (J. Cottingham Trans.). Cambridge: Cambridge University Press.

Descartes, R. (2003). Selections from the principles of philosophy. Retrieved from http://www.gutenberg.org/cache/epub/4391/pg4391.html

Dixon, T. S. (2016). What is well-foundedness of grounding. *Mind, 125*(498), 439-468.

Dorr, C. (2022). Natural properties. Retrieved from https://plato.stanford.edu/archives/spr2022/entries/natural-properties/

Ewing, A. C. (1957). *The Idealist Tradition: From Berkeley to Blanshard*. Glencoe, IL: The Free Press.

Fine, K. (1994). Ontological dependence. *Proceedings of Aristotelian Society, 95*(1), 269-290.

Fine, K. (2001). The question of realism. *Philosopher's Imprint, 1*(1), 1-30.

Fine, K. (2010). Some puzzles of ground. *Notre Dame Journal of Formal Logic, 51*(1), 97-118.

Fine, K. (2012). Guide to ground. In F. Correia, & B. Schnieder (Eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (pp. 37-80). Cambridge: Cambridge University Press.

Fisher, A. R. J. (2015). Samuel Alexander's theory of categories. *The Monist, 98*(3), 246-267.

Frege, G. (1960). *Foundations of Arithmetic* [Die Grundlagen der Arithmatik] (J. L. Austin Trans.). New York: Harper and Row.

Frege, G. (1984). In McGuinness B. (Ed.), *Collected Papers on Mathematics, Logic, and Philosophy*. Oxford: Basil Blackwell.

Galluzzo, G. (2014). Aquinas's commentary on the metaphysics. In G. Galluzzo, & F. Amerini (Eds.), *A Companion to the Latin Medieval Commentaries on Aristotle's Metaphysics* (pp. 209-254). Leiden: Brill.

Georgi, H. (1989). Effective quantum field theories. In P. Davies (Ed.), *The New Physics* (pp. 446-457). Cambridge: Cambridge University Press.

Goodman, N., & Quine, W. V. (1947). Steps toward a constructive nominalism. *Journal of Symbolic Logic, 12*(4), 105-122.

Greene, B. (1999). *The Elegant Universe: Superstrings, Hidden Dimensions, and the Quest for the Ultimate Theory*. New York: Random House.

Grossmann, R. (1992). *The Existence of the World: an Introduction to Ontology*. New York: Routledge.

Guyer, P., & Horstmann, R. (2021). Idealism. Retrieved from https://plato.stanford.edu/archives/spr2021/entries/idealism/

Haaparanta, L., & Koskinen, H. (Eds.). (2012). *Categories of Being: Essays on Metaphysics and Logic*. Oxford: Oxford University Press.

Hacker, P. (1982). Events and objects in space and time. *Mind, 91*(361), 1-19.

Hawley, K. (2001). *How Things Persist*. Oxford: Oxford University Press.

Heidegger, M. (1962). *Being and Time* [Sein und Zeit] (J. Macquarrie, E. Robinson Trans.). Oxford: Blackwell.

Heidegger, M. (1984). *The Metaphysical Foundations of Logic* (M. Heim Trans.). Indianapolis: Indiana University Press.

Hirsch, E. (2011). Physical-object ontology, verbal disputes, and common sense. in *Quantifier Variance and Realism: Essays in Metaontology* (pp. 144-177). Oxford: Oxford University Press.

Hylton, P. (2004). Quine on reference and ontology. In R. F. Gibson (Ed.), *The Cambridge Companion to Quine* (pp. 115-150). Cambridge: Cambridge University Press.

Hyman, A., Walsh, J. J., & Williams, T. (Eds.). (2010). *Philosophy in Middle Ages: The Christian, Islamic, and Jewish Traditions* (3rd ed.). Indianapolis, IN: Hackett.

Janson, L. (2016). Explanatory asymmetries, ground, and ontological dependence. *Erkenntnis, 82*(1), 17-44.

Jenkins, C. (2011). Is metaphysical dependence irreflexive? *The Monist, 94*(2), 267-276.

Jenkins, C. (2013). Explanation and fundamentality. In M. Hoeltje, B. Schnieder & A. Steinberg (Eds.), *Varieties of Dependence* (pp. 211-242). Munich: Philosophia Verlag.

Johansson, I. (1989). *Ontological Investigations: An Inquiry into the Categories of Nature, Man, and Society*. New York: Routledge.

Kant, I. (1998). In Guyer P., Wood A. W. (Eds.), *Critique of Pure Reason* (P. Guyer, A. W. Wood Trans.). Cambridge: Cambridge University Press.

Kim, J. (1993). *Supervenience and Mind*. Cambrdige: Cambrdige University Press

King, P. (2004). Metaphysics. In J. Brower, & K. Guilfoy (Eds.), *Cambridge Companion to Abelard* (pp. 65-125). Cambridge: Cambridge University Press.

Kment, B. (2021). Varieties of modality. Retrieved from https://plato.stanford.edu/archives/spr2021/entries/modality-varieties/

Koslicki, K. (2012). Varieties of ontological dependence. In F. Correia, & B. Schnieder (Eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (pp. 186-213). Cambridge: Cambridge University Press.

Krämer, S., & Roski, S. (2017). Difference-making grounds. *Synthese, 174*(5), 1191-1215.

Kung, J. (1986). Aristotle on "being is said in many ways". *History of Philosophy Quarterly, 3*(1), 3-18.

Leitgeb, H., & Carus, A. (2020). Rudolf carnap. Retrieved from https://plato.stanford.edu/archives/sum2020/entries/carnap/

Lewis, D. (1983). New work for a theory of universals. *Australian Journal of Philosophy, 61*(4), 343-377.

Lewis, D. (1986). *On the Plurality of Worlds*. Oxford: Blackwell.

Lewis, D. (1991). *Parts of Classes*. Oxford: Blackwell.

Liggins, D. (2008). Nihilism without self-contradiction. *Royal Institute of Philosophy Supplement, 62*, 177-196.

Litland, J. E. (2013). On some counterexamples to the transitivity of grounding. *Essays in Philosophy, 14*(1), 19-32.

Lloyd, A. C. (1962). Genus, species, and ordered series in Aristotle. *Phronesis, 7*(1), 67-90.

Lotze, H. (1884). *Lotze's System of Philosophy Part I: Logic* (B. Bosanquet Trans.). Oxford: Clarendon Press.

Loux, M. J. (2012). Being, categories, and universal reference in aristotle. In L. Haaparanta, & H. Koskinen (Eds.), *Categories of Being: Essays on Metaphysics and Logic* (pp. 17-35). Oxford: Oxford University Press.

Lowe, E. J. (2006). *The Four-Category Ontology: A Metaphysical Foundation for Natural Science*. Oxford: Oxford University Press.

Lowe, E. J. (2008). Two notions of being: Entity and essence. *Royal Institute of Philosophy Supplement, 62*, 23-48.

Maddy, P. (1990). *Realism in Mathematics*. Oxford: Oxford University Press.

Makin, S. (2006). *Aristotle: Metaphysics Theta*. Oxford: Clarendon Press

Matthews, G. B. (1972). Senses and kinds. *Journal of Philosophy, 69*(6), 149-157.

McCready-Flora, I. (2019). Speech and the rational soul. In G. Keil, & N. Kreft (Eds.), *Aristotle's Anthropology* (pp. 44-59). Cambridge: Cambridge University Press.

McDaniel, K. (2009). Ways of being. In D. Chalmers, D. Manley & R. Wasserman (Eds.), *Metametaphysics: New Essays on the Foundations of Ontology* (pp. 290-319). Oxford: Oxford University Press.

McDaniel, K. (2013). Degrees of being. *Philosopher's Imprint, 13*, 1-18.

McDaniel, K. (2017). *The Fragmentation of Being*. Oxford: Oxford University Press.

McGinnis, J. (2010). *Avicenna*. Oxford: Oxford University Press.

McGrath, M. (1998). Van Inwagen's critique of universalism. *Analysis, 58*(2), 116-121.

McInerny, R. (1996). *Aquinas and Analogy*. Washington D.C.: Catholic University of America Press.

McLaughlin, B., & Bennett, K. (2018). Supervenience. Retrieved from https://plato.stanford.edu/archives/win2018/entries/supervenience/

McTaggart, J. M. E. (1921). *The Nature of Existence*. Cambridge: Cambridge University Press.

Meinong, A. (1972). *On Emotional Presentation* (M. Schubert Kalsi Trans.). Evanston, Il: Northwestern University Press.

Meinong, A. (1983). *On Assumptions* (J. Heanue Trans.). Berkeley and Los Angeles, California: University of California Press.

Menzel, C. (2023). The possibilism-actualism debate. Retrieved from https://plato.stanford.edu/archives/spr2023/entries/possibilism-actualism/

Merricks, T. (2001). *Objects and Persons*. Oxford: Oxford University Press.

Merricks, T. (2019). The only way to be. *Noûs, 53*(3), 593-612.

Miller, A. (2019). Realism. Retrieved from https://plato.stanford.edu/archives/win2019/entries/realism/

Moore, A. W. (2012). *The Evolution of Modern Metaphysics: Making Sense of Things*. Cambridge: Cambridge University Press.

Moore, G. E. (1918). The conception of reality. *Proceedings of Aristotelian Society, 18*(1), 101-120.

Morgan, C. L. (1923). *Emergent Evolution*. London: Williams & Norgate.

Morganti, M. (2015). Dependence, justification and explanation: Must reality be well-founded? *Erkenntnis, 80*(3), 555-572.

Mulla Sadra. (1999). In Muhammad Khajavi (Ed.), *اسفار (Asfar)*. Tehran: Mula.

Munitz, M. K. (1970). The concept of the world. In H. E. Kiefer, & M. K. Munitz (Eds.), *Language, Belief, and Metaphysics* (pp. 190-234). Albany: State University of New York Press.

Nasr, S. H. (1972). Mulla Sadra and the doctrine of the unity of being. *Philosophical Forum, 4*, 153-161.

Nolan, D. (2001). What's wrong with infinite regresses? *Metaphilosophy, 32*(5), 523-538.

Nolan, D. (2005). *David Lewis*. Montreal: McGill-Queen's University Press.

Normore, C. G. (2012). Ockham on being. In L. Haaparanta, & H. Koskinen (Eds.), *Categories of Being: Essays on Metaphysics and Logic* (pp. 78-98). Oxford: Oxford University Press.

Oderberg, D. (2007). *Real Essentialism*. London: Routledge.

Olson, E. T. (1995). Why I have no hands. *Theoria, 61*(2), 182-197.

O'Meara, D. J. (1995). *Plotinus: An Introduction to the Enneads*. Oxford: Oxford University Press.

Orilia, F. (2009). Bradley's regress and ungrounded dependence chains: A reply to cameron. *Dialectica, 63*(3), 333-341.

Orilia, F., & Paoletti, M. P. (2022). Properties. Retrieved from https://plato.stanford.edu/archives/spr2022/entries/properties/

Owen, G. E. L. (1960). Logic and metaphysics in some earlier works of Aristotle. In I. Düring, & G. E. L. Owen (Eds.), *Aristotle and Plato in the Mid-Fourth Century* (pp. 163-190). Leiden: Brill Publishers.

Owen, G. E. L. (1986). In Nussbaum M. (Ed.), *Logic, Science, and Dialectic: Collected Papers in Greek Philosophy*. Ithaca, NY: Cornell University Press.

Pasquale, P. (2014). Henry of Ghent. Retrieved from https://plato.stanford.edu/archives/fall2014/entries/henry-ghent/

Paul, L. A. (2012). Building the world from its fundamental constituents. *Philosophical Studies, 158*(2), 221-256.

Peacocke, C. (2002). Principles for possibilia. *Noûs, 36*(3), 486-508.

Peirce, C. S. (1931). *The Collected Papers of Charles Sanders Peirce, vol. VIII: Reviews, Correspondence, and Bibliography*

Peirce, C. S. (1960). In Hatshorne C., Weiss P. (Eds.), *Collected papers of Charles Sanders Peirce*. Cambridge, MA: Harvard University Press.

Peramatzis, M. (2011). *Priority in Aristotle's Metaphysics*. Oxford: Oxford University Press.

Perovic, K. (2017). Bradley's regress. Retrieved from https://plato.stanford.edu/archives/win2017/entries/bradley-regress/

Pincock, C. (2009). Carnap's logical structure of the world. *Philosophy Compass, 4*(6), 951-961.

Plato. (1997). In Cooper J. M. (Ed.), *Complete Works*. Indianapolis, IN: Hackett Publishing Company.

Porphyry. (2003). *Porphyry's Introduction* [Isagoge (Εἰσαγωγή)] (J. Barnes Trans.). Oxford: Oxford University Press.

Quine, W. V. (1948). On what there is. *Review of Metaphysics, 2*(1), 21-38.

Quine, W. V. (1951). Two dogmas of empiricism. *Philosophical Review, 60*(1), 20-43.

Quine, W. V. (1953). On mental entities. *Proceedings of American Academy of Arts and Sciences, 80*(3), 198-203.

Quine, W. V. (1960). *Word & Object*. Cambridge, MA: MIT Press.

Quine, W. V. (1981). Things and their place in theories. *Theories and Things* (pp. 1-23). Cambridge, M.A.: Harvard University Press.

Ramsey, F. P. (1925). Universals. *Mind, 34*, 401-417.

Rea, M. C. (1998). In defense of mereological universalism. *Philosophy and Phenomenological Research, 58*(2), 347-360.

Rodriguez-Pereyra, G. (2019). Nominalism in metaphysics. Retrieved from https://plato.stanford.edu/archives/sum2019/entries/nominalism-metaphysics/

Rosen, G. (2010). Metaphysical dependence: Grounding and reduction. In B. Hale, & A. Hoffman (Eds.), *Modality: Metaphysics, Logic, Epistemology* (pp. 109-135). Oxford: Oxford University Press.

Rosen, G. (2020a). Abstract objects. Retrieved from https://plato.stanford.edu/archives/spr2020/entries/abstract-objects/

Rosen, G. (2020b). Buildings and grounds: Notes on Karen Bennett's Making Things Up. *Inquiry, 63*(7), 711-721.

Rundle, B. (2006). *Why there is Something rather than Nothing*. Oxford. Oxford University Press.

Russell, B. (1918). The philosophy of logical atomism. *The Monist, 28*, 495-527.

Russell, B. (1998). *Problems of Philosophy*. Oxford: Oxford University Press.

Ryle, G. (1949). *The Concept of Mind*. London: Hutchinson.

Ryle, G. (1971). *Collected Papers*. London: Hutchinson & Co.

Schaffer, J. (2003). Is there a fundamental level? *Noûs, 37*(3), 498-517.

Schaffer, J. (2007). From nihilism to monism. *Australian Journal of Philosophy, 85*(2), 175-191.

Schaffer, J. (2009). On what grounds what. In D. Chalmers, D. Manley & R. Wasserman (Eds.), *Metametaphysics* (pp. 347-383). Oxford: Oxford University Press.

Schaffer, J. (2010). Monism: The priority of the whole. *The Philosophical Review, 119*(1), 31-76.

Schaffer, J. (2012). Grounding, transitivity, and contrastivity. In F. Correia, & B. Schnieder (Eds.), *Metaphysical Grounding: Understanding the Structure of Reality* (pp. 122-138). Cambridge: Cambridge University Press.

Schaffer, J. (2020). Taking causation out of Bennett's *Making Things Up*. *Inquiry, 63*(7), 722-744.

Sider, T. (1993). Van Inwagen and the possibility of gunk. *Analysis, 53*(4), 285-289.

Sider, T. (2011). *Writing the Book of the World*. Oxford: Oxford University Press.

Sider, T. (2013). Against parthood. In K. Bennett, & D. Zimmerman (Eds.), *Oxford Studies in Metaphysics* (pp. 237-293). Oxford: Oxford University Press.

Simmons, B. (forthcoming). Ontological pluralism and the generic conception of being. *Erkenntnis,* , 1-19.

Simons, P. (1987). *Parts: A Study in Ontology*. Oxford: Oxford University Press.

Skiles, A., & Trogdon, K. (2021). Should explanation be a guide to ground? *Philosophical Studies, 178*(12), 4083-4098.

Spade, P. V. (1999b). Ockham's nominalist metaphysics: Some themes. In P. V. Spade (Ed.), *The Cambridge Companion to Ockham* (pp. 100-117) Cambridge University Press.

Stebbing, L. S. (1918). The philosophical importance of the verb "to be". *Proceedings of Aristotelian Society, 18*, 582-589.

Strawson, P. F. (1959). *Individuals: An Essay in Descriptive Metaphysics*. London: Methuen.

Studtmann, P. (2021). Aristotle's categories. Retrieved from https://plato.stanford.edu/archives/spr2021/entries/aristotle-categories/

Tahko, T. E. (2018a). Fundamentality. Retrieved from https://plato.stanford.edu/archives/fall2018/entries/fundamentality/

Tahko, T. E. (2018b). Fundamentality and ontological minimality. In R. Bliss, & G. Priest (Eds.), *Reality and its Structure*: *Essays in Fundamentality* (pp. 237-253). Oxford: Oxford University Press.

Tallant, J. (2013). Problems of parthood for the proponents of priority. *Analysis, 73*(3), 429-438.

Thomasson, A. L. (1999). *Fiction and Metaphysics*. Cambridge: Cambridge University Press.

Thompson, N. (2016). Metaphysical interdependence. In M. Jago (Ed.) *Reality Making* (pp. 38-56). Oxford: Oxford University Press

Thompson, N. (2019). Questions and answers: Metaphysical explanation and the structure of reality. *Journal of the American Philosophical Association, 5*(1), 98-116.

Trogdon, K. (2013). An introduction to grounding. In M. Hoeltje, B. Schnieder & A. Steinberg (Eds.), *Varieties of dependence* (pp. 97-122). Munich: Philosophia.

Turner, J. (2010). Ontological pluralism. *Journal of Philosophy, 107*(1), 5-34.

Turner, J. (2012). Logic and ontological pluralism. *Journal of Philosophical Logic, 41*(2), 419-448.

Van Cleve, J. (2008). The moon and sixpence: A defence of mereological universalism. In T. Sider, J. Hawthorne & D. Zimmerman (Eds.), *Contemporary Debates in Metaphysics* (pp. 321-340). Oxford: Blackwell.

Van Inwagen, P. (1990). *Material Beings*. Ithaca: Cornell University Press.

Van Inwagen, P. (1998). Meta-ontology. *Erkenntnis, 48*, 233-250.

Van Inwagen, P. (2001). *Ontology, Identity, and Modality: Essays in Metaphysics*. Cambridge: Cambridge University Press.

Van Inwagen, P. (2009). Being, existence, and ontological commitment. In D. Chalmers, D. Manley & R. Wasserman (Eds.), *Metametaphysics: New Essays on the Foundations of Ontology* (pp. 472-506). Oxford: Oxford University Press.

Van Inwagen, P. (2014). Modes of being and quantification. *Disputatio, VI*(38), 1-24.

Varzi, A. (2006). A note on the transitivity of parthood. *Applied Ontology, 1*(2), 141-146.

Vetter, B. (2015). *Potentiality: From Disposition to Modality*. Oxford: Oxford University Press.

Vlastos, G. (1954). The third man argument in *Parmenides*. *Philosophical Review, 63*(3), 319-349.

Vlastos, G. (1981). *Platonic Studies* (2nd ed.). United States: Princeton University Press.

Walbridge, J. (2004). Suhrawardī and illuminationism. In P. Adamson & R. C. Taylor (Eds.), *The Cambridge Companion to Arabic Philosophy* (pp. 201-223). Cambridge: Cambridge University Press.

Westerhoff, J. (2005). *Ontological Categories: Their Nature and Significance*. Oxford: Oxford University Press.

Westerståhl, D. (2019). Generalized quantifiers. Retrieved from https://plato.stanford.edu/archives/win2019/entries/generalized-quantifiers/

Whitcomb, D. (2011). Grounding and omniscience. In J. Kvanvig (Ed.), *Oxford Studies in Philosophy of Religion* (). Oxford: Oxford University Press.

Williamson, T. (2003). Everything. *Language and Philosophical Linguistics, 17*, 415-465.

Wilson, J. (2014). No work for a theory of grounding. *Inquiry: An Interdisciplinary Journal of Philosophy, 57*(5-6), 535-579.

Winston, M. E., Chaffin, R., & Herrmann, D. (1987). A taxonomy of part-whole relations. *Cognitive Science, 11*(4), 417-444.

Wisnovsky, R. (2003). *Avicenna's Metaphysics in Context*. Great Britain: Cornell University Press.

Wisnovsky, R. (2004). Avicenna and the Avicennian tradition. In P. Adamson & R. C. Taylor (Eds.), *The Cambridge Companion to Arabic Philosophy* (pp. 92-136). Cambridge: Cambridge University Press.