

Truthmaking as Alethic-Fact Building

By

Gabriel Dumet Delgado

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Supervisor: Ferenc Huoranszki

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<u>Abstract</u>

Recently, several truthmaker theorists have formulated their views in terms of grounding. Some seem to favor alethic-fact grounding, the view that a proposition's truthmakers are entities which ground the fact that the proposition is true. In this thesis, I propose and explore a general view along those lines. First, I give reasons to support grounding formulations of truthmaking, and how to understand this claim. Next, I critically survey some alethic-fact grounding views, arguing against the view that we should reject partial truthmakers. Building on the views surveyed, I sketch a general view I call alethic-fact building. In the final two chapters I respond to several objections to alethic-fact grounding premised on general metaphysical considerations, and on desirable features of the concepts of grounding and truthmaking. To the memory of Raza Khan, uno de los nuestros.

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Introduction

"For that by which we reveal is logos, but logos is not substances and existing things. Therefore, we do not reveal existing things to our neighbors, but logos, which is something other than substances."

Gorgias¹

Usually, we read Gorgias' third thesis as saying that even if Being existed and could be known, it could never be communicated. His first statement seems true: reality, the objects we see and touch, cannot be communicated, because it is not the right sort of thing to be communicated. What we exchange in communication are means of representing reality: we don't "say" chairs and tables, we say words and sentences. We believe "things", but we don't mean things as tables and chairs, but, for example, propositions.

However, and this underpins Gorgias' observation, we sometimes expect reality to "show up" in some way in communication. These cases are cases of truth, and it seems natural to think that reality is somehow importantly involved when representations are true: although truth attaches to representations, it also importantly involves things in non-representational reality. How it involves reality, and what these "things" are, are matters for debate.

Truthmaking theory started a philosophical project of giving substance to the idea that truth depends on reality, which is a way of answering the how and the what from the previous paragraph. It captured the idea that truths do not "float in a void", but that they depend on our ontology. In this, one can see a resemblance to ideas championed by correspondence theorists of truth. They explained the thought that truth involves reality by saying truth was a correspondence relation between representation and reality. Their shortcomings are widely known.

Truthmaker theorists normally avoid talking about a relation of correspondence. They claim that propositions (important candidates to be the truthbearers) are true *in virtue of* some things or others, that certain entities *make true* certain propositions. Sometimes, they present

¹ This is George Kennedy's English translation of Sextus Empiricus' fragments of Gorgias' treatise *On the Nonexistent* or *On Nature* (paragraph 84), in (Sprague, 1972: 46). Emphasis removed.

themselves not as giving a full account of truth, claiming that their objective is more modest: to capture one aspect of it. Namely, that, whatever truth is, it is made by our ontology.

Different truthmaker principles can be presented to characterize the truthmaking relation. They come in different shapes and sizes, with a different nature, relata, and truths under its scope. There is ample debate about which, if any, should be accepted.

Some truthmaker theorists have chosen to use the concept of grounding to formulate truthmaking. They point to the language used in seminal works on truthmaking and claim that grounding was always the core of the concept. Grounding is identified through the *in virtue of* language, and it is related to asymmetric dependence, explanation, and relative fundamentality. This seems to be faithful to the original thought: that parts of reality explain the truth of propositions, that truth depends on ontology, and that it is not a fundamental, brute thing.

There are many ways to bring these two concepts together. After all, both truthmaking and grounding are difficult, contested concepts, and different assumptions must be gauged and negotiated in crafting a formulation of one in terms of the other.

I believe we have good reason to formulate truthmaking in terms of grounding. In this thesis, I study the claim that truthmaking is an instance of grounding. In doing so, I formulate a general way to make this claim, which takes features from existing accounts. My aim is not innovating on them as much as capturing what I find most plausible of them in a general way.

The general view I will formulate will be referred to as alethic-fact building (AFB). The idea is that an alethic fact (like the fact that proposition P is true) is a "built" fact (see Bennett, 2017, whose framework is influential throughout this thesis), grounded in its constituent parts. Certain entities play the role of building this fact, and one of them is the truthmaker for the relevant proposition. I will argue that (AFB) is a plausible starting place for truthmaker theory, by highlighting its positive features (present in other theories), and showing it sustains replies to arguments levied against it.

In the first chapter of the thesis, I present the concepts of truthmaking and grounding, mentioning important points of debate. Here, I will show that we have good reason to think that truthmaking should be formulated in terms of grounding.

The second chapter is dedicated to the claim that truthmaking is an instance of grounding. Here, I present four theories based on this idea. I compare these views and offer some remarks about them, showcasing what I find attractive and problematic about them. In the final section, I will introduce (AFB).

In the third chapter, I present and respond to general metaphysical arguments against views like (AFB). I aim to show that good answers to them are available. I will make an important concession, but I will offer ameliorative comments. In the fourth chapter, I present and respond to a specific argument against alethic-fact grounding views, which relies on a tension between features of both truthmaking and grounding: the argument from transitivity.

I finish this work with a short conclusion as to the prospect for a view like (AFB) and general remarks on the issues discussed, and future research.

I must clarify that there are difficult and complex issues that I cannot deal with in this thesis, two especially: the nature of truth, and the nature of the putative truthbearers (here, as many do, I will assume they are propositions). Although I will comment on how they relate to specific problems along the way, I will leave them aside for further research and thought.

Chapter I: Truthmaking and grounding

Contemporary metaphysics has seen the rise of, among others, two important projects: Truthmaking theory and the theory of Ground. Grounding attempts to capture the idea of metaphysical explanation, bearing out metaphysical priority, normally conceived as obtaining between facts. Truthmaking attempts to capture the thought that truth depends on reality, that it is not a fundamental thing, subject to ontology.

Their two central notions, truthmaking and grounding, have been put to work in metaphysics in different ways. They have also been subjected to both criticism from skeptics and internal disagreement from their respective supporters. Among the several attempts to analyze and explain what truthmaking is, there is the idea that it can be captured by grounding. To explore this thought, a general basis for understanding the concepts involved is presented in this chapter.

In the first section I introduce the concept of truthmaking, mentioning important points of discussion. In the second section, I do similarly in relation to grounding, and introduce a preliminary worry related to the idea that truthmaking can be illuminated through grounding. In the last section, I respond to this worry.

As philosophical programs, they show certain similarities. Both lay claim to a long and respectable ancestry, however, in the context of analytic philosophy, both appear as highly contemporary: Truthmaking has received substantial interest since the 1980's, and Grounding since the 2000's. A quick survey of metaphysical literature shows that they are both quite popular. They can both be broadly conceived methodologically, as tools of metaphysical investigation and argumentation². Both have been put to work in formulating arguments, used to defend and attack metaphysical positions.

As we shall see, grounding has been called in to help clarify debates in philosophy of mind, metaethics and other metanormative fields, metaphysics itself, etc. The concept of some entity playing a truthmaker role has also been recently deployed to establish arguments and lay down constraints in, e.g. the metaphysics of time and epistemology³.

² Compare (Fine, 2012), section 1.2), and (D. M. Armstrong, 2004).

³ See, for example, (Tallant & Ingram, 2015) and (Heathcote, 2006).

Sometimes, truthmaking and grounding are seen as performing a similar methodological role. This has led some to believe that one of them should replace the other⁴. Others admit that they are complementary⁵. I prefer a view in which truthmaking is an instance of grounding, and so hope to avoid the discussion in this thesis.

Finally, let me note that, in responding to their detractors, both programs have had to offer a justification for their methodology, a justification which includes a clarification of their central notion. For grounding, since most of its advocates take it as a primitive⁶, this is mostly done through relating it with other notions and bearing out rules of inference. For truthmaking, things are not so clear.

1.1. Truthmaking

1.1.1. Introducing truthmaking

Truthmaking theory was developed as a method to settle metaphysical dispute by demands of ontology. Historically, it was originally championed by Martin and Armstrong (Armstrong, 1997, 2004); and, later but parallelly, by (Mulligan et al., 1984). These philosophers, and those immediately influenced by them, saw themselves as establishing arguments that favored a philosophical "big picture" they called metaphysical "realism", although it is not fully clear what the contrast of that realism could be. Armstrong, in any case, introduces the concept of truthmaking and its usefulness by presenting us with theories that seem to betray truthmaking "demands".

Actualist phenomenalists and Rylean-style behaviorists, Armstrong thought, following Martin, committed a similar metaphysical sin: they laid claim to counterfactual truths without having anything in the world that could *make them* true or *in virtue of which* they would be true. The phenomenalist could say that, were I to turn on the lights in this room, I would see my desk. The behaviorist could say that were I to believe in god, I would pray. Armstrong and Martin wanted to ask what thing in the world made true, or *in virtue of* what those claims are true. Since phenomenalists of this sort have only actual sense-data in their ontologies, and behaviorists have

⁴ See (Heil, 2016).

⁵ See (Asay, 2017).

⁶ Primitivists about grounding include (Fine, 2012) and (Rosen, 2010). (Bricker, 2006) has attempted a partial analysis of it. (Correia, 2013) manifests some uncommitted hope that grounding can be understood in terms of essence.

only brute-like dispositions as beliefs, there can be no answer to this question. Of course, the hidden premise is that these questions should not left unanswered.⁷

That is the form of orthodox truthmaker arguments: we demand an adequate ontological commitment for important truths in a theory. One can see why some philosophers take truthmaking methodology to be of help clarifying the ontological commitments of a theory⁸, but, in general, there seems to be agreement that truthmaker arguments are not fine-grained enough to resolve all the issues at play: we can demand that *something* plays the truthmaking role, but exactly what and how this entity is can remain largely unanswered at that level.

In general, it has been noted that the metaphysical method might allow us to postulate ad hoc entities to fit truthmaking requirements. It then becomes very important to evaluate whether the proposed entities are defensible on their own right. Sometimes, truthmaker considerations have also been leveraged to recommend substantial positions in metaphysics. Armstrong, for example, argued for his own view of states of affairs partly based on such considerations (2004, sections 4.5).

Truthmaking has also sometimes been thought of as the surviving legacy of correspondence theories of truth, without their shortcomings⁹. Armstrong (1997: 128), for example mentions that deflationary theories of truth gave us the semantics of the truth predicate, while correspondence theories supposedly confronted us with the observation that "since truths require a truthmaker, there is something in the world that corresponds to a true proposition". Note, however, that truthmaker theorists are interested in one aspect of truth, namely, that it is *made*; not in giving a full account of what truth is.

⁷ See (Sider, 2001: 40-42) for a brief rundown of how truthmaking arguments operate against this views, minus idealism. For the truthmaker argument against idealism, see Armstrong (2004: 1-2) and comments from (Bigelow, 1988) and (D. Lewis, 1992). There seems to be growing appreciation that idealism can respond. See (Daly, 2005; Dodd, 2002; and (Kodaj, Manuscript).

⁸ For discussion of how truthmaking can formulate an account of ontological commitment, see (Schaffer, 2008).

⁹ For two contemporary versions of truthmaking that still lay claim to surviving "correspondence intuitions", see (Saenz, 2018; Audi, Forthcoming). See also (Jago, 2018), who defines truth in terms of truthmaking.

Due to limited space, I avoid discussing Maximalism, the thought that all true propositions require truthmakers. The principle is still debated¹⁰, but I take it on board as a general assumption. Grounding accounts of truthmaking are partly motivated in the need to give adequate truthmakers for necessary truths (see section 1.3). I think that only because truths are necessary, they might be ontologically fundamental.

1.1.2. Weak and strong truthmaking

One can push back against the thought behind truthmaking, by challenging the hidden premise I mentioned before. Instead of going directly to answer which entities make certain truths, we can ask why truth would require entities in the first place.

What might seem trivial is that truth must depend on *something* (in contrast with depending on some *thing*). And it seems anyone can meet this trivial demand: theories of truth usually thought of as at odds with truthmaking demands, like pragmatist or coherentist views, are compatible with it; since we could say that truth depends the ends of scientific enquiry or coherence. Phenomenalists could say truths depend on (actual and possible) sense-data. And so on.

Sometimes, this less strict demand is put in terms of constraint. So interpreted, the idea behind truthmaking is that truth must somehow be constrained something. Even if we thought this "something" was ontology, there are different ways to secure such a constraint. These are the truthmaking "principles", coming in varying degrees of strength.

Instead of, for example,

(TM): If $\langle p \rangle$ is true, it is made true by some entity *x*,

we can also have

(TSB): Truth supervenes on being¹¹.

¹⁰ For discussion on the merits of Maximalism and non-Maximalism, see, (Barrio & Rodriguez-Pereyra, 2015; Jago, 2012, Forthcoming; Milne, 2005, 2013; Rodriguez-Pereyra, 2006; Simpson, 2014) For examples of non-maximalist accounts, see the seminal (Mulligan et. al 1984), and (Simons, 2000, 2008).

¹¹ See (Bigelow, 1988), and (Lewis, 1992). The former used the expression "truth supervenes on what there is" to avoid issues with negative truths. Lewis proposes (TSB), where "being" includes not just what there is, but how it is.

Principles such as (TSB), importantly, do not involve entities as truthmakers. They simply propose a supervenience base for truths. As such, they manage to preserve the idea that truth is constrained, while no particular thing plays the truthmaking role. This opens up room for important criticism, like (Molnar, 2000, VII).

I would like to call views which take up such more modest, less committing principles, "weak", and contrast them with the versions of truthmaking which do demand entities, which I would like to call "strong". What is left of truthmaking methodology under weak truthmaking is debatable.¹²

It is noteworthy that, in weak truthmaking, especially when incorporated through a principle like (TSB), we cannot capture a *dependence* of truth on reality. Truthmaker theorists are most likely averse to this result, since even though reality and truth do seem to go hand in hand, their original thought was that reality has a certain priority in this pairing. I elaborate on the shortcomings of views formulated in supervenience in section 1.3.

Further, one can secure the same constraint by claiming truth and reality are the same, that facts and truths are identical. This is not an incoherent result, and some have taken this view. Certain deflationists about truth seem to do this, although it is not clear how much of truthmaking they can or should salvage¹³. Since this discussion would involve comparing theories of truth, I will avoid it in this thesis.

1.1.3. Truthbearers and truthmakers

Generally, in the truthmaking literature, discussion about truthbearers is not central, and it's assumed that they are propositions¹⁴. Even under this assumption, there is need to be elaborate on the nature of propositions, however truthmaker theorists are not too interested in this either¹⁵. In general, it seems that truthmaking might place some constraints on what features of propositions we can commit ourselves to¹⁶. As I mentioned, theories of propositions remain outside the scope of this thesis.

¹² For deflationary attacks on truthmaking, see (Dodd, 2002; Daly, 2005).

¹³ See, for discussion, (McGrath, 2003).

¹⁴ See, for example (Rodriguez-Pereyra, 2005; Schaffer, 2009; Jago, 2018).

¹⁵ Contrastingly, (Jago, 2018) constructs a unifying theory for truth, propositions, and truthmaking.

¹⁶ See (Rowe, 2018) for a discussion of naturalism and truthmaking.

On the flipside of truthbearers are the truthmaker entities themselves (assuming strong truthmaking). States of affairs and tropes are taken as the usual required entities to perform this role¹⁷. Sometimes, absences and totality facts have been posited as truthmakers for negative truths, and universal generalizations. These candidates are even less popular than states of affairs¹⁸. I will not discuss these issues in this work.

1.1.4. The nature of truthmaking

Central to my interests is the issue of giving an account or analysis of truthmaking and its nature. Our account of truthmaking must satisfy certain conceptual demands. Two are quite important, and I will mention others which are less so.

First, it is desirable to preserve a certain principle of Necessitation (Armstrong, 2004, Ch. 2). This governing principle tells us that for an entity x, if it is a truthmaker for $\langle P \rangle$, then, necessarily, if x exists, $\langle P \rangle$ is true. This does not mean we should equate truthmaking with entailment (Armstrong, 2003; 2004, section 2.3).

Second, it is desirable to preserve a certain relationship of relevance between truthmakers and the propositions they make true. A similar point can be put in terms of "aboutness": entities which make true propositions are most likely entities *about* which those propositions are. This allows us to block seemingly absurd conclusions from modal accounts of truthmaking. Of course, this relevance, aboutness, or "matching" (see section 4.2.1) between truths and truthmakers might admit of degree, which would allow us to have very sparse ontologies able to make true a wide range of propositions.

One might be more flexible with other features. Armstrong, for example, conceived truthmaking as a cross-categorial relation, which necessarily obtained between different kinds of entities, one of them a proposition (Armstrong, 2004, Ch. 2). Logical features such as asymmetry and non-reflexivity are also widely acknowledged and seem plausible. Non-reflexivity demands that nothing makes itself true, and asymmetry that there is no two-way truthmaking. These two features are secured if we are strict about cross-categoricity.

¹⁷ See (Schnieder, 2006a).

¹⁸ See (Dodd, 2007) for discussion.

There are several analyses of truthmaking available. A first group of views treats truthmaking in purely modal terms, as entailment or necessitation¹⁹. While securing the first desideratum I mentioned, given that necessary truths are trivially entailed by everything, the lead us to the undesirable conclusion that every object can be the truthmaker for a necessary truth, or any truth whatsoever (Restall, 1996). (Armstrong, 2004, section 2.3) eventually became more receptive to the limitations of traditional entailment, which he thought could be overcome with a principle that secured relevance. Thus, Smith has provided the concept of a proposition's "projection" to correct this deficiency, but it is not clear if the project can succeed²⁰.

A second group uses the concept of essence to replace modal notions, so that a proposition's essence constrains which are its truthmakers.²¹ A third group advocates a primitive truthmaking relation²². I find this option interesting, but its appeal depends on the final stock of primitives (or, at least, of primitive relations) in a complete metaphysics²³.

A fourth group, the most important for this thesis, claims that truthmaking should be formulated in grounding terms, which might also lean on the essence of propositions. I elaborate on this claim in the third section.

1.2.Grounding

1.2.1. General features

Although grounding has its skeptics²⁴, it is a very popular concept in contemporary metaphysics. As I see it, its benefit is capturing two notions. First, that some things obtain in virtue of others. Second, that the former are, in an important sense, "nothing over and above" the second. Grounding is an ideology of ordering, and grounding assertions aim to partially capture a structure in our ontology. For many philosophers, reality comes in layers, things are not created equal²⁵. In

¹⁹ See, ((Fox, 1987; Armstrong, 2004).

²⁰ See (Smith, 1999), and (Schnieder, 2006b) for discussion.

²¹ See (Mulligan, 2007; Lowe, 2009).

²² See (Mulligan et. al, 1984; Simons, 2000).

²³ See (Sider, 2011, Ch. 1-2). Methodological meta-metaphysical discussions regarding primitive relations of truthmaking, grounding, or structure are outside my interests here. For these in the context of truthmaking and grounding, see (Fine, 2012; Heil, 2016; Asay, 2017).

²⁴ See (Hofweber, 2009; Daly, 2012; Koslicki, 2015; Wilson, 2014, 2016; Miller & Norton, 2017). See also Sider (Sider, 2011, Ch.8), and compare with (Sider, 2020).

²⁵ See (Heil, 2003), for discussion.

fact, the classic expression goes that some things are not even created, and they are there because the created things are there, and thus are "no addition of being".

Like most presentations of grounding, I start with a list of familiar assertions. Here, I list some of Correia & Schnieder's (2012) examples:

- (1) Mental facts obtain because of neurophysiological facts.
- (2) Legal facts are grounded in non-legal, e.g. social, facts.
- (3) What accounts for the existence of a whole is the existence and arrangement of its parts.
- (4) A set is less fundamental than its members.
- (5) That snow is white is true because snow is white.

We supposedly have an intuitive grasp of what is behind assertions like these. Mental and legal facts, wholes, sets, truths, and others are facts or entities which *depend* upon others: physical facts, social facts, parts, members, ontology. The latter are thus (i) more fundamental than the former, (ii) are required for the former to exist, and (iii) might help explain them or uncover their nature. These are the three key general aspects of grounding.

The first is priority, or relative fundamentality. Grounding helps capture that reality is structured. It is natural to think, for example, that there cannot be "fundamental" legal entities, like contracts. The universe, so to speak, does not come furnished with contracts. It is likely that human social practices underlie every legal fact, such that non-legal facts are *prior to* legal facts. That social facts are more fundamental than legal facts, even if social facts themselves are less fundamental than, say, physical facts. Similarly, we might think that the physical is prior to the mental, that parts are prior to wholes, etc.²⁶

Second, there is a modal connection between these elements, although the modal connections might not be the same for all the relations listed. For example, {Socrates}exists iff Socrates does. This is not true of *being red* and *being maroon*, for something can fail to be maroon while still being red, although the opposite is not possible. Grounding assertions are hyperintensional, they go beyond modality. That allows us to capture an asymmetry even in cases of two-way entailment. So, we say that the rose is red *in virtue of* it being maroon, and not vice-

²⁶ For a view that defines relative fundamentality in terms of grounding, see (Schaffer, 2009), also (Bennett, 2017, Ch. 6) for discussion.

versa; we say, equally that the singleton {Socrates} exists in virtue of Socrates, and not vice-versa; even though the modal connection of these latter two is $stronger^{27}$.

Third, grounding is taken to be an explanatory relation, like causality. When we uncover grounds, as when we uncover causes, we seem to be in the business of explaining what is caused, or what is grounded. As I will mention in section 2.1.2, some philosophers take grounding to be a form of explanation, while others, whom I favor, take it as a relation that underlies explanation.

1.2.2. Operational and predicational grounding

One important divide between supporters of grounding is between those who take it to be a relation, linking entities²⁸, and an operation, linking sentential terms²⁹. The former views are usually called "predicational", since "grounds" is a predicate that refers to a relation, and the latter "operational". Several aspects of grounding are relatively neutral between the two conceptions, although some of them might be thought to be captured better by either view 30 .

Operational grounding takes expressions like "because" or "in virtue of" to be sentential operators linking two terms, which might be grammatically restricted. The idea is that this view avoids ontological commitments, particularly, positing a relation, and entities to be linked. This is cited in its favor by its supporters (Correia & Schnieder, Introduction, 2012). Predicational grounding, in contrast, takes it as a relation obtaining between some entities, usually only facts (although see section 3.4).

Important differences might follow: if one takes grounding to be a relation, one would have to commit oneself to the existence of facts linked by grounding. Operationalists, like (Fine 2012), might claim there is no need for this commitment, although other find it desirable (Wilson, 2016). I will highlight another important difference in section 2.1.2.

1.2.3. Unitary and variegated grounding

The second internal debate relates to the unity of grounding. The general point is this: there is a disputed list of seemingly different grounding claims. It is relevant to ask what the relation

²⁷ See, for discussion of "generative" language and set-formation, (Bennett, 2017: 57).
²⁸ See, among others, (Rodriguez-Pereyra, 2005; Schaffer, 2009; Audi, 2012).

²⁹ See, among others, (Fine, 2012).

³⁰ For a quick overview, see (Correia & Schnieder, 2012, Introduction, section 3.1).

between the different claims is. It might be that the same grounding relation is at play in all, and the differences are rather superficial³¹, or perhaps the differences are substantial, and thus there are several species of grounding relations, or an overarching, general grounding relation that obtains whenever a more specific metaphysical relation does³².

Skeptics attack grounding on the basis of such variety. If the differences are so substantial, perhaps all the "work" is done by the specific metaphysical relations that supposedly instantiate a more general grounding relation.³³

Compromises are possible. Bennett (2017), for example rejects view that there is one overarching, coarse-grained, general, or disjunctive relation of grounding, settling for the weaker claim that there is a class of relations, unified by some important shared features.

1.2.4. Grounding's logical profile

With relative independence of these last two axes, there is the issue of the logical profile of grounding. Generally, grounding is taken to be irreflexive, asymmetrical, and transitive (Rosen, 2010). That is, that grounding is a strict order.

Irreflexivity rules out "self-grounding": grounding formulae of the form "A grounds A" are necessarily false. Asymmetry rules out two-way grounding, so that formulae like "A grounds B and B grounds A" are necessarily false. Transitivity allows us to infer, from "A grounds B", and "B grounds C", that "A grounds C".

Sometimes these logical features are thought of as deducible from grounding's explanatory nature: nothing can explain itself, and two things cannot circularly explain each other. There is ample debate about which of these actually hold, however³⁴. It is made more complex by the fact that there is disagreement about specific grounding cases, and how they are related to the central features of grounding, explanation being the most important.

1.3.Grounding and Moorean connections

³¹ See (Schaffer, 2009; Rosen, 2010; Audi, 2012).

³² See (Fine, 2012).

³³ See (Wilson, 2014; Koslicki, 2015).

³⁴ See (Raven, 2013; Schaffer, 2012) for discussion. I elaborate on transitivity in section 4.2.1.

I would like to motivate the thought that grounding can help us formulate truthmaking. To do so, I will dispel one preliminary doubt: after seeing that grounding is a heavily contested concept, we might worry that it cannot help clarify other complicated and contested concepts, like truthmaking. I want to show here that this worry is misplaced, for three reasons.

First, grounding has helped formulate other views for reasons which apply to truthmaking. Non-reductive physicalists about the mental, for example, have struggled to formulate a thesis which is respectful of physicalist inclinations, but does not force elimination of mental facts from our ontology. A modal relation of supervenience, popularized by the classic (Davidson, 1970) was thought of as able to capture non-reductive physicalism.

However, (Horgan, 1993, 2006, especially 1.6) shows that supervenience cannot do this. Simply put, the problem is that to avoid reduction is not enough: supervenience formulations pustulate an unexplained necessary connection between two distinct existents. His preferred example in this context is Moorean metaethical non-naturalism, a view paradigmatically averse to physicalism. Moorean moral facts are not reducible to natural facts, and they necessarily supervene on them. Horgan observed that if Moore could not claim to be a naturalist merely because his *sui generis* moral properties supervened on natural ones, then neither could the non-reductivists claim to be physicalists. In general, even if a modal relation allows us to constrain the co-variance of some facts, one should not assume this relation is explanatory in and of itself, but rather demands explanation. This much, I think, is generally clear³⁵. This unexplained connection is what (Rosen, 2010) calls a Moorean connection.

My point here is that the relation between truth and ontology might is in danger of being a Moorean connection. As we had moral facts supervening on non-moral ones, we have truths, which necessarily supervene on what is the case: call this alethic supervenience. We need at least some explanation to render alethic supervenience non-mysterious. One possibility is to say that truth *is* what is the case. But for those looking to preserve the idea that truth is a feature of a representation of reality, this is not available.

Grounding offers a way to help bring explanations on the table to what would otherwise be Moorean connections, by way of a relation of dependence. This dependence carries the strong

³⁵ See (Molnar, 2000, section 7; Heil, 2003, Ch. 7; Melia, 2005; Daly, 2005).

modal component of supervenience relations, but also incorporates asymmetry, capturing both the distinctiveness of the related terms and the "nothing over and above"-ness of the grounded one³⁶. Those looking to strike similar middle grounds and secure non-mysteriousness have made use of grounding: non-reductive physicalists, metaethicists, legal theorists, etc³⁷.

Second, a directed, asymmetrical dependence relation, captured by grounding, fits better with our linguistic practices regarding our use of expressions like "because", "in virtue of", and "depends". Even if you believe that supervenience holds with strict necessity, the following assertions seem quite natural (see Armstrong 2004, p. 7)³⁸:

- (6) Being in love depends on being in certain physical states, being in those states does not depend on one being in love.
- (7) This action is wrong because it is an instance of torture, it is not an instance of torture for being wrong.
- (8) The proposition (or the sentence, or the belief) that Olga is sweet is true because Olga is sweet. It is not the case that she is sweet because it is true that she is sweet.

Third, as many have observed³⁹, modal accounts cannot help us formulate truthmaking principles for necessary truths, since they are only intensional. As (Caputo, 2007) notes, a hyperintensional notion like grounding is ideal to avoid this limitation. Others have attempted to explain this asymmetry epistemically or conceptually (see section 2.2).

These points should be enough to motivate truthmaker theorists' faith in grounding. Even though it is a contested concept, it is generally agreed that it carries modal strength, that it carries relative dependence or priority, and that it relates to explanation. These are contested too, of

³⁶ See (Audi, 2012b) and (Wilson, 2014, 2016) for critical discussion of these claims.

³⁷ See (Wilson, 2016) for discussion on grounding formulations of non-reductive physicalism. See (Chilovi & Pavlakos, 2019; Chilovi, forthcoming) for grounding formulations of legal positivism. See (Rosen, 2017) for grounding formulations in metaethics.

³⁸ In the moral and mental cases, one could think the supervenience is contingent. A divine voluntarist about moral facts could say that god could have recombined moral properties arbitrarily. Similarly, zombie arguments against physicalism attempt to show that the physical properties or facts, which we think as bases for at least certain mental properties or facts might obtain without them. These two positions don't seem very plausible to me, but contingent alethic supervenience seems even more implausible.

³⁹ See, for example (Molnar, 2000; Lewis, 2003)

course, but not to a degree that has stopped several philosophers from using it to formulate important views.

In the next chapter I explore ways in which we might formulate truthmaking in terms of grounding.

Chapter II: Truthmaking as grounding

In the first section of this chapter, I distinguish views that formulate truthmaking as operational and predicational grounding and explore one operationalist view. Next, I present four views related to predicational grounding. I highlight positive aspects of each, and important problems that might arouse suspicion. In the third section, I formulate a general view of truthmaking (AFB) that I believe captures the best aspects of the previous ones.

2.1. Truthmaking as operational grounding

2.1.1. Operational and predicational grounding in truthmaking

To clarify my exposition, I will use (MacBride, 2020)'s distinction of grounding formulations of truthmaking based on the two conceptions of grounding I introduced in section 1.2.2. He proposes two principles to identify them:

(Grounding-Predicate-T): A truth-maker is an entity x which makes a proposition y true iff the fact that x exists grounds the fact that y is true.

and

(Grounding-Operator-T): A truth-maker is an entity x which makes a proposition y true iff y is true because x exists.

Note that these principles are biconditionals and, as such, might fail to fully capture the nature or essence of truthmaking⁴⁰. As for the differences between these accounts, they inherit the distinctive features of the operational or predicational view of grounding, centrally in terms of ontological commitment.

The formulation of truthmaking I will present is predicationalist. However, I will dedicate the next subsection to discuss one version of operationalist truthmaking.

2.1.2. Truthmaking as Operational Grounding

Caputo (2007) claims that truthmaking is part of a larger phenomenon of explanation, captured by what he calls because-analysis. A similar view was defended by (Schnieder, 2006a).

⁴⁰ See (Fine, 1994).

For them, grounding is the non-truth-functional sentential operator "because", which signifies an explanation is being given.

This can be used to understand talk of "making". Caputo defines "nom(p) makes y F" as "y is F because p". Nom(p) represents a nominalization of p. So, in his example, given Carola is happy because Hilda is nice to her, Gilda's being nice to her makes Carola happy. We simply replace F with "true" for truthmaking: "nom(p) makes y True is defined as "y is True because p".

Caputo highlights this "because" is not a predicate that links entities, which allows him to avoid positing entities as the "makers": "it would not be inconsistent to believe that Carola is happy because Gilda is nice to her (...) and also not believe that there is an entity which is *Gilda's being nice to Carola* [whose] existence (...) explains why Carola is happy" (p. 17). (Schneider, 2006) reaches similar results, and even attacks the usual truthmaking entities.

Views like these avoid the shortcomings of more coarse-grained modal accounts (see section 1.3) and allow us to capture our pre-theoretical intuitions about truth: that it depends on the world, and not the other way around. This seems to strike a balance between weak and strong truthmaking (see section 1.1.2).

On this view, grounding is explanation. "Making" assertions are defined as "because" assertions, thus truthmaking is grounding and, thus, explanation. The open question remains, as Caputo observes, of what *kind* of explanation. He argues that it must be non-causal explanation, since truthmaking seems to involve that what he calls a "necessitating" explanation (see sections 1.1.4 and 2.2.4), which causal explanations are not⁴¹.

The paradigmatic non-causal explanations, for Caputo, are conceptual analysis ("Julie knows that P because she justifiably believes that P, and P is true") and theoretical reduction ("The glass contains water because it contains H_2O "), and uses of because-statements to assert primitive truths that those with mastery over the relevant concepts accept. When discussing truthmaking, he claims truthmaking explanations always involve something like "it is true that P because P",

⁴¹ I understand Caputo as claiming truthmaking was supposed to hold with metaphysical necessity, while causation holds under merely nomological necessity

which, he claims, is "a kind of conceptual analysis of what it is for a given proposition to be true". (p. 20).

(Caputo, 2007, 2013), as was made clear in the previous paragraph, takes it that something like the following schema is a conceptual analysis of truth⁴²:

(TB-Schema) If <P> is true, <P> is true because P.

As such, truthmaking explanations are centrally about how two particular <P> and P obey this (TB-Schema). Caputo concludes that, while that <P> and P obey this schema is trivial to those acquainted with the concept of truth, that does not make it less explanatory (Caputo, 2013). Note that talk of concepts and their possession, for (Caputo, 2013), should be replaced by talk of linguistic competence.

The asymmetry involved in (TB-Schema) is then explained in conceptual terms, and this marks perhaps the most important difference with predicational versions of truthmaking. For the operationalist, what underlies these explanations (indeed, *what makes them true*) is our mastery of concepts (for Caputo, our linguistic competence). For the predicationalist, in contrast, these explanations are true in virtue of the metaphysical relations that link entities: grounding and truthmaking *underlie* explanation.

Therefore I see operational grounding as distanced from the motivations behind truthmaking. It offers a possibility to those who favor less substantial theories of truth to preserve key platitudes that regulate the concept, like the asymmetric (TB-Schema). For example, (Caputo, 2013) uses his theory of grounding explanation to argue that minimalists can adopt the (TB-Schema); and (McGrath, 2013) uses something much like this view to differentiate what he calls "existential" and "non-existential" truthmaking, preferring the latter, which is available to those who propose an identity between truths and facts.

If we pay close attention to the underlying explanation of why the (TB-Schema) holds, as do other conceptual truths, we will see that operationalists must make use of primitive, brute truths, which are so in virtue of speakers' dispositions to accept assertions. This seems to be at the heart of these views, and in direct tension with the motivations behind truthmaking: that truths are not

⁴² (Schnieder, 2006a) reaches a similar conclusion.

simply a matter of us giving and accepting assertions but must be grounded in the way the things they represent are. Thus, I take truthmaking to be better suited with taking grounding not as explanation, but as a metaphysical relation that underlies some explanations⁴³.

2.2. Truthmaking as Predicational Grounding

In this section, I will present four grounding-predicationalist formulations of truthmaking. The views are sometimes highly idiosyncratic, and, given this work's limitations, will be presented succinctly but, I hope, fairly. I shall highlight the reasons I have for suspicion in each case, while noting positive aspects I wish to preserve when formulating a general view.

2.2.1. Truthmaking and alethic-fact grounding

(Rodriguez-Pereyra, 2005, 2015) has contributed substantially to truthmaker debates, and articulated one of the few arguments for the main motivating thought behind truthmaking, based on grounding (2005). He takes grounding to be "the non-causal generic relation of *being F in virtue of*" (Rodriguez-Pereyra, 2015, p. 519), and truthmaking to be the instances of this relation where *being F* is *being True*. As many others, he identifies the truthbearers with propositions (2005).

Note that, as Rodriguez-Pereyra observes, this view importantly takes on board the controversial assumption that grounding can obtain between non-fact entities, since he allows objects (including propositions) to be truthmakers (2015). I find this relaxation positive, and welcome it in section 3.4. His account further takes truthmaking, and grounding with it, to not be asymmetric, irreflexive, nor transitive, owing to some counterexamples; and, in general, does not see grounding as involving relative fundamentality (2015).

(Rodriguez-Pereyra, 2015) distinguishes between truthmaking and what he calls alethicfact grounding as two different species of the grounding relation. Alethic-fact grounding is the grounding relation of *existing/obtaining in virtue of* between an alethic fact [<P> is true] and <P>'s truthmaker. Both, he claims, are "closely related" since, "when an entity is a truthmaker of a certain proposition, that entity is the alethic-fact ground of the fact that that proposition is true"

⁴³ See (Rodriguez-Pereyra, 2005, p. 28).

(Rodriguez-Pereyra, 2015, p. 520). Although, however linked, he claims they need not share the same logical profile, avoiding formulating a principle like:

(9) If $\leq P >$ is true in virtue of *x*, then [$\leq P >$ is true] is (partially) grounded in *x*,

which would imply that the relations would indeed share the same logical profile.

Leaving Rodriguez-Pereyra's particular views on grounding, I don't think it is sensible to differentiate between truthmaking and alethic-fact grounding as he does. I think it is best to define truthmaking in terms of alethic-fact grounding⁴⁴, since it is non-parsimonious to countenance as different species of grounding both *obtaining in virtue of* and, for any property *F*, *being F in virtue of*. I believe an ontology of facts allows us to "incorporate" any property *F* as the property constituent of the fact which stands in the *obtaining in virtue of* relation, allowing the *being F in virtue of* relation to be defined as an *obtaining in virtue of* relation by reference to the class of facts involved.

Here is an example. Imagine the ball that is read in virtue of being crimson. By the same paradigm that distinguishes between truthmaking and alethic-fact grounding, we would have to admit the *being red in virtue of* relation, and its fact-correlate: [This ball is red] *obtains in virtue of* [This ball is crimson] (you could call them "redmaking" and "redness-fact grounding"). But this is non-parsimonious⁴⁵, they capture the same metaphysical structure. Anything we can say as *a is F in virtue of*, we could say as [Fa] *obtains in virtue of*. In fact, operational views of making seem to get this right, as they define "making" in terms of the grounding "because" which links non-entity facts (see section 2.1.2). Even if we took *F-making* as one generic relation, we would have the *F-making* plus the *F-fact grounding* relation⁴⁶.

⁴⁴ This would commit us at least to a principle like (9).

⁴⁵ I don't claim it is absurd. As some philosophers are ontologically "generous" with entities (Schaffer, 2009) others might be generous with relations. But even the generous should be wary of a proliferation of primitive relations, even of the same family. See (Sider, 2011, Ch. 1-2).

⁴⁶The complicated case is that of existence. To ground that the x exists, it seems we must treat existence as a property, for we either claim *existing* is like *being* F, or that there are facts whose non-object component is *existing*, sometimes called existential states of affairs, see section 2.2.2). Although philosophers are averse to treating existence as a property since Kant, it seems desirable to ground the existence of non-fundamental entities. Here I deal with truthmaking and not existence-making, but the issue will appear again, in section 3.4.

(Rodriguez-Pereyra, 2015) claims he can show that truthmaking is non-transitive, while he cannot do the same for the alethic-fact grounding. If these relations have different logical profiles, one cannot be defined in terms of the other. His argument is that, given transitivity, the claims

(1) The fact that Socrates is white makes <Socrates is white> true,

and

(2) <Socrates is white> makes <There are propositions> true,

generate the inference

(3) The fact that Socrates is white makes <There are propositions> true,

which is clearly false, since Socrates has nothing to do with there being propositions. Thus, truthmaking is not transitive.

According to Rodriguez-Pereryra, he has no similar argument available for alethic-fact grounding. It seems to me that alethic-truth grounding *is* transitive. To argue that we should define one relation in terms of the other, a good way to proceed is to find exceptions to (9). The way set by Rodriguez-Pereyra is through transitive chains. He writes he cannot demonstrate:

(10) It is not the case that the fact that Socrates is white grounds the fact that <There are true propositions> is true.

Thus, I take it the obvious counterexample to (9) would be that while

(~10): [Socrates is white] grounds the fact that [<There are true propositions> is true]

is, at least *prima facie*, a legitimate alethic-fact grounding claim, the following is not a legitimate truthmaking claim:

(11) [Socrates is white] makes true <There are true propositions>.

(~10) and (11) generate an exception to (9), and give us reason to revise the thought that we should not distinguish *F*-making and *F*-fact grounding.

I argue that claims like (~10) are not legitimate alethic-fact grounding claims in Chapter IV. If I am right, there would be no counterexamples to (9). This, plus the initial plausibility of *F*-*making* and *F*-fact grounding capturing the same metaphysical structure, give us reason to define

one in terms of the other. These reasons do not tell us which one should be defined away, and I accept this: what is important is that truthmaking be concerned with alethic facts, whether they are *definiens* or *definiendum*. I will present a view which defines truthmaking in terms of alethic-fact grounding; while bearing in mind this could be varied to accommodate defining things the other way around.

2.2.2. Truth in terms of truthmaking

(Jago, 2018) defends an account of truthmaking which is methodologically different in that he does not expect a list of necessary and sufficient conditions for the obtaining of the truthmaking relation (pp. 175-176). However, he situates this relation in a general theory of propositions and of truth, and explains truthmaking in terms of set-membership.

Jago accepts a principle like (9):

(T-Grounding): x is a truthmaker for <A> iff x grounds the state of affairs *that* <A> *is true*.

(T-Grounding) follows from Jago's account of truth in terms of truthmaking, which I cannot cover here. I cannot cover either his full account of grounding, including how "logical" grounding relations (related to conjunction, disjunction, existential assertions and sets) structure reality. However, it is worth noting that the "conjunction grounding clause" discussed in (Jago, 2018, section 6.3) is used to model mereological sum, states of affairs (including complex states of affairs, like alethic facts) and complex properties and relations. I find this a useful explanation of how grounding operates for truthmaking, sharing a similar outlook to Bennet's building relations (Bennett, 2011, 2017).

(Jago, 2018: 195), following his account of grounding, takes alethic facts to be existential states of affairs: [$\langle P \rangle$ is true] is [$\exists y(y \text{ truthmakes } \langle P \rangle)$]. If we look to the right-hand side of this identification, we have an existential state of affairs (that there is a *y* such that it makes true $\langle P \rangle$). Given that existential states of affairs are grounded by their instances (see section 4.3), the possible grounds for [$\langle P \rangle$ is true] are the possible truthmakers for $\langle P \rangle$, which are determined by the nature of proposition $\langle P \rangle$.

To explain how the nature of a proposition determines its truthmakers would require going into Jago's account of propositions (2018: Ch. 8), which I cannot do in length. In short: for him,

propositions are (certain) sets, which have their possible truthmakers as members. Sets are generally taken to have their members essentially. *Being true* is then for some of their possible truthmakers to be actual. All this entails that truthmakers are grounds of the alethic facts which include the relevant propositions.

I find Jago's treatment of truthmaking as alethic-fact grounding compelling, as his modelling of grounding around the logical operations he discusses. However, I am not sure it is appropriate to define truth in terms of truthmaking. Further, Jago's account commits us to impossible entities, although perhaps not of the most dangerous sort (2018: 256). Finally, as Castillo-Gamboa and I argue (Castillo-Gamboa & Dumet, Manuscript) his theory of truthbearers as sets of truthmakers faces great difficulties.

2.2.3. Truthmaker monism

(Schaffer, 2008) argues that truthmaking is best formulated through grounding, a notion capable of capturing truth's dependence on reality and "explicate" truthmaking claims (Schaffer, 2009, p. 365). It seems that he is sympathetic to taking truthmaking to be alethic-fact grounding.⁴⁷

As he writes (Schaffer, 2010, p. 310):

"(A5). *Truthmaking is grounding*: the truthmaking relation is the relation of grounding between substance and truth".

We do not know how "truth" figures in this relation, and we still do not know what is to count as substance. Per Schaffer's (2009) priority monism, the world is the only fundamental entity, and the substance that figures in this relation. (A5), in combination with other principles governing ontology and truthmaking (including Maximalism), gives rise to Schaffer's general theory of truthmaking (2010, pp. 308-311), which he calls truthmaker monism.

In this theory, the whole world is the only truthmaker: on any world, only the whole world grounds truth (Schaffer, 2010). Although other truthmaker theorists consider the world to be a truthmaker, they disregard it. As Armstrong says, "minimal" truthmakers are more interesting, and

⁴⁷ Not in print, but see (Griffith, 2014, footnote 24).

he and others (see Armstrong 2004, p. 18-19; Molnar 2000) dismissed the world as a rather trivial, uninteresting, truthmaker.

Schaffer's account is appealing, and I agree with his sentiment regarding grounding formulations. His view embeds alethic facts into a neo-Aristotelian, ordered metaphysical picture (Schaffer, 2009) as non-fundamental, dependent entities, which captures the thought behind truthmaking.

However, even a priority monist should want to formulate truthmaking without committing to truthmaker monism. It seems desirable to be able to claim that smaller and more familiar objects than the world are truthmakers, and truthmaker monism seems inconsistent with what (Fisher, 2015) calls the intimate relation between a minimal truthmaker and the truths it makes true⁴⁸. This relation can be put in terms of relevance constraints on truthmaking (see 1.1.5 above).

Schaffer (2010, p. 314) claims we have no "guarantee of nor any use for (...) partial truthmakers", and suggests we abandon them along with the minimal ones (2010, 314). He takes on board Restall's (1996) counterexample to minimal truthmakers, related to an infinity of electrons, and provides another of his own, related to the possibility of gunk⁴⁹. These are purported examples of propositions lacking minimal truthmakers. Here is Restall's: <There are denumerably many electrons> cannot have minimal truthmaker, since all electrons are truthmakers, but also every infinite subset of them, and every infinite subset of this subset, and so on. This is Schaffer's: if some object is gunky and all of its parts are pink, then any proper part of it makes <there is something pink> true, and any proper part of that part, and so on.

(Schaffer, 2010, p. 314) further argues that there are no minimal truthmakers "for ordinary claims featuring commonplace sortals". His argument takes Sider's maximality requirement for sortals (Sider, 2001b) and the possibility of scattered objects as premises. However, he takes the argument to rule out necessitation-based accounts. Thus, I will ignore it. However, he does object to everyday objects as truthmakers on the basis of them not being fundamental, in his or almost anyone's ontology.

⁴⁸ (Tahko, 2013) argues that this inconsistency is problematic (see section 4.1).

⁴⁹ Something gunky is such that every one of its parts has a proper part. Thus, there is never an "indivisible" atom one can reach. (Lewis, 1991) baptized gunk.

Truthmaker monism overcomes all worries, since the world includes the object in the plus anything else, so no possibility of "omitting" further swathes of the carpet; and, on Schaffer's view, it is fundamental. Given the initial appeal of Schaffer's view, I would like to respond to his objections to partial truthmakers and avoid truthmaker monism.

First, I must reject the claim that non-fundamentalia cannot be grounds. They are involved in the most common grounding assertions. This is an artificial restriction imposed by (A5) and the concept of substance Schaffer employs. If the claim is that non-fundamentalia cannot ground truth, it is *ad hoc*. Furthermore, such restriction is not supported by the concept of grounding or our truthmaking motivations, and is too strong to by a starting assumption (Fisher, 2015).

As for gunk and electrons, (Armstrong, 2004: 21-22) noted Restall's argument, and seemed to accept the conclusion that "any infinity in nature will make true certain truths that have no minimal truthmakers"⁵⁰. Both Armstrong and (Fisher, 2015) seem comfortable with having some truths lacking a minimal truthmaker, if they are a small, marginal class of truths, as truths about infinities in nature seem to be. Gunk, I think, is a bit more problematic. Schaffer's argument from gunk does not threaten truths about infinities (like <There are denumerably many electrons>), but more traditional truths like <There are pink things>.

The possibility of gunk (which I will not deny here) threatens priority pluralism, the idea that there are many fundamental entities, not just truthmaking accounts. (Schaffer, 2010a) argues that our metaphysical ideas about fundamentality should be necessarily true, and gunky worlds seem inconsistent with priority pluralism⁵¹.

I agree with Schaffer that, in gunky worlds where an object is such that all of its parts are pink, then <Something is pink> has no minimal truthmakers. But we should recognize how strange gunky worlds are, and more so if they are such that all of an object's parts share an everyday property like *being pink*. In such strange worlds, it should not surprise us that a larger class of

⁵⁰ As (Sider, 1993) notes, gunky objects don't just have infinite parts, objects composed of infinite atoms are not gunky. Gunk has infinite parts, *and those parts have infinite parts*, and so on.

⁵¹ For discussion of the argument against priority pluralism from the possibility of gunk, see (Schaffer, 2010a; Tallant, 2013).

truths lack minimal truthmakers⁵²: what is strange in non-gunky worlds is common in gunky ones. I don't think this gives us reason to doubt minimal truthmakers are sensible for the rest of truths, and in general for non-gunky worlds. That most truths have minimal truthmakers need not be a necessary truth, whether priority monism is correct or not. In sum, I think we can keep minimal truthmakers. I will use them in section 4.1.

2.2.4. Truthmaking and deep correspondence

Recently, (Saenz, 2018) has proposed a view according to which "truthmakers are deep corresponders", such that "*x* makes true $\langle p \rangle = df \langle p \rangle$'s being true is grounded in $\langle p \rangle$'s deeply corresponding to *x*". This view implies that truthmaking cannot be entirely analyzed in terms of grounding. Given that truthmaking understood as a specific instance of grounding in which the grounded fact is an alethic fact, and the ground is not the truthmaker, but a fact of deep correspondence, of which the truthmaker is a constituent. Thus, this *deeply corresponding to* relation becomes an important element.

Saenz claims his view corrects the mistake of thinking that truthmaking is grounding. His argument, in a nutshell, is that alethic-fact grounding claims in which the truthmaker entity figures as ground lack an important feature of other, widely accepted grounding claims he calls relevance; which should not be confused with the relevance demanded to Schaffer's account (see sections 4.1). In typical grounding claims, (Saenz, 2018) tells us, "the non-property constituent of the grounded fact exists because the non-property constituent of the grounding fact does and the property constituent of the grounded fact is instanced because the property constituent of the grounding fact is". His view corrects this, since the fact of deep correspondence is adequately (in fact, sufficiently) relevant to the alethic fact.

I am sympathetic to Saenz' view. But, unlike him and (MacBride, 2020), I don't interpret it as denying truthmaking is grounding. Rather, I see it as the view that truthmaking is not *full* grounding but partial grounding, and that, as I mentioned, is not entirely analyzable in terms of partial grounding. The truthmaker entity partially grounds by being a constituent of the fact of

⁵² Even in a gunky world, properties like *being pink* instantiating in every part of an object would not be common. So, most everyday truths are unharmed. Existential truths about parts would have to be accepted, but that was already the conclusion to Restall's argument.

deep correspondence. I agree with him that his view makes the relation of deep correspondence a central element in truthmaking, and in need of reflection.

I don't think that when we say truthmakers are grounds we mean full grounds. Why would they be full grounds? If we take them to *only ground the truth component*, they must be full grounds. But to take them as only grounding this component, the existence and representation of the proposition are then taken as given. In alethic-fact grounding, we look to ground the complete package of proposition and truth. Thus, truthmakers are partial grounds.

I suspect that the motivation to demand truthmakers to be full grounds is that, if one subscribes to the Necessitation principle, then one is committed to truthmakers as full grounds. I think this is misguided. As (Bennet, 2017: 54) says, we might share with (Armstrong, 1997: 116) the idea that a "truthmaker-in-the-circumstances" is low-hanging fruit.

But Armstrong's, and anyone else's truthmares *are already* truthmakers in the circumstances. As long as we are taking propositions to be entities, for *x* to necessitate that $\langle P \rangle$ is true, *x* would have to necessitate that $\langle P \rangle$ exists. This requirement could be trivially met if $\langle P \rangle$ were a necessary existent, *but it is still there*. As (Bennett, 2017: 54) tells us, even the most generous of those who choose "builders-in-the-circumstances" will want to have some restrictions on which these circumstances are, to avoid triviality. As such, I see Armstrong and others as placing very strict restrictions on the circumstances. But, again, the requirement of circumstance outside the truthmaker is present.

I think grounding is the best formulation for truthmaking, and I don't see why we should demand the truthmaker to ground the existence of a proposition⁵³. In this context, we are entitled to add more to the "circumstances" element of Necessitation, while remaining sufficiently strict and avoiding any danger of rendering our truthmakers-in-the-circumstances trivial or unimportant.

I see Saenz's account as doing precisely that. As I interpret it, his truthmakers are partial grounds, where the circumstances required to fully ground the truth of the relevant proposition, are the proposition's *deeply corresponding* with the truthmakers. I think Saenz sufficiently restricts

⁵³ (Rodriguez-Pereyra, 2015) makes this remark in clear terms.

the circumstances: the truthmakers identified are not unimportant, because the circumstances they need to fully ground are highly constrained.

In general, I agree with Bennett that taking building relations (like grounding or truthmaking) as necessitating or not is a matter of book-keeping. As she notes, similar issues appear when reflecting on whether causes necessitate their effects or not⁵⁴.

I conclude that a circumstancialist, as Bennett calls the position, with an adequate account of what the circumstances must be can provide interesting truthmakers (or causes, or grounds) and is indeed allowed to say that truthmaking is (partial) grounding. Of course, there might be other ways to restrict these circumstances other than Saenz's deep correspondence, and to leave room for that, I formulate more general view than his in this thesis.

2.3. Truthmaking as alethic-fact grounding

In this section, I sketch a general view that takes up good features from the previously mentioned accounts, avoiding the difficulties I responded to throughout it. It is a view of truthmaking as alethic-fact grounding.

I would like to call it "alethic-fact building" (AFB). The "building" here is meant to do two things. First, it is meant to convey that the *way* a truthmaker grounds the truth of a proposition is by it being a constituent of fact that the proposition is true. Second, it is meant to embed this understanding of grounding in Bennett's general framework of "building" relations. I expand on what this entails in the next section.

2.3.1. Bennet's family of building relations

(Bennett, 2011, 2017)⁵⁵ has recently adopted the term "building relations" to describe a class of relations which we have been cataloguing under the banner of "grounding" relations. She has offered a list of individually necessary and jointly sufficient features for a relation to count as a building relation. These features, in her view, support the idea that building relations form a (roughly) unified class.

⁵⁴ See (Mackie, 1965)

⁵⁵ I focus on her latter work which has some important differences.

One important feature of Bennett's account is that she does not claim there is one underlying relation (e.g. grounding) that obtains whenever one of the species obtains, a thesis she calls generalist monism about building relations (Bennett, 2017, section 2.5). She argues that building relations form an important class, unified by their sharing of the features previously mentioned. However, as she notes, generalist monism is cannot be squarely taken off the table. She mentions the possibility (she finds implausible) that there is one of the building relations (like grounding or composition) that underlies all of them. I myself feel drawn to this latter alternative, but I would like the thesis here to not commit one to it, but to stay within the boundaries of Bennett's less committing resemblance class.

These are the shared features (Bennett, 2017, sections 3.2-3.4): directedness (all these relations are antisymmetric and irreflexive), necessitation (in the circumstances, as in section 2.2.4), and generative. She, importantly, does not include transitivity, noting arguments to the effect that grounding and truthmaking are not, but also that set-formation, which he identifies as a building relation, is clearly non-transitive (2017: 46).

It is also important that the account is designed to allow the *being more fundamental than* relation to be captured in terms of building relations (Bennet, 2017, section 6.3). I take it that this is a net gain for truthmaking theorists if they take up this framework: this entails that truth is never a fundamental thing, and that each truth is less fundamental than what makes it true.

Another important aspect of Bennett's framework is her idea of the "causal taint" of building relations (2017, Ch. 4). As she argues, not only is causality best understood as a building relation, but some building relations involve causality. This is of little consequence with regards to our analysis of truthmaking. However, in the context of truthmaking, (Audi, Forthcoming) contrasts views he claims take grounding "as-building" with those which take it "as-making", based on whether the model of grounding is composition or causality. Bennett's insight challenges this perspective, since it denies making/building make up for a serious axis of differentiation.

I do not share all of Bennet's thoughts, however. Here, I believe the most relevant one has to do with the generativity feature, which is the feature that allows for hyperintensionality (Bennet, 2017: 54). Generativity is where the *in virtue of* talk (or *because*, or *making*) takes center-stage. Bennett captures this feature as follows (p. 58) "(G) For all building relations *B*, and all *x* and *y*,

x's *B*-ing *y* makes true certain explanatory and generative claims... Building licenses generative locutions like 'in virtue of'".

She wants (G) to be compatible with different ways to understand this generative talk. She notes two extreme possibilities. First, that there is an underlying, general *in virtue of* relation obtaining. Second, that, conventionally, we are "allowed" to use generative assertions when a building relation holds. Bennett claims she sometimes feels an inclination towards the latter (2017: 59). She argues that we don't seem to gain anything by introducing a general relation, since we could ask the same question "why does one feel entitled to use generative talk when *this* relation holds?"

First, I think we should clarify expressions of us being "allowed to say something", or that something "licenses talk". Contrast them with the expression that appears in (G), i.e., "making true". I take the latter to be a non-normative way to interpret the "license-to-talk" ones: the rose being red does not "allow" us to "say" that the rose is red. What the rose being red does is making it true that the rose is red.

Perhaps an operationalist about truthmaking (see section 2.1.2) would prefer the licenseto-talk phrases. Here is how she might reason. She begins by noting that (in her view) it is a conceptual truth that aBb (a "builds" b). But that means, for her, that there is some relation between the concepts of a and b, and perhaps B. Further, she might naturally think, following (Caputo, 2013), that there being this relation between concepts is there being some relation between linguistic practices concerning a-talk and linguistic practices concerning b-talk. Finally, she will probably say that linguistic practices are normative practices: speakers give, accept, criticize, justify, etc., their assertions. She concludes that whether aBb is a matter of normative practice.

Predicationalist truthmaking interpretations avoid this. That *aBb* does not "allow" one to say anything. Although my belief or my knowledge that *aBb* might be constitutive of a rule of assertion⁵⁶, truth is not reduced to assertions, since truth is ultimately grounded in how things stand with *a* and *b* in reality.

2.3.2. Alethic-fact building

⁵⁶ See (Thomson, 2015, Ch. 6: 88 onwards) for discussion of some plausible rules of assertion.

Alethic-fact building (AFB), defines truthmaking in terms of alethic-fact grounding. A supporter of it claims the fact that a proposition is true is what we might call a "conjunctive" fact, with two discernable constituents or conjuncts. First, what I will call a complex of "meaning" facts which are the facts pertaining to how <P> represents (a clarification is coming shortly); second, the truthmaker of <P>, the entity in virtue of which the proposition is true. Thus:

(AFB): $[<P> is true] = [[M<P>] + [P]]^{57}$.

An important feature of (AFB) is that it highlights the internal structure of truthmaking, since, by its lights, [P] grounds [<P> is true] by being a constituent of it.

Constituents ground wholes in the sense that they "build" wholes. Per Bennett's features, the relation between these constituents and their whole is asymmetric and irreflexive, they roughly necessitate and "generate" the whole: the whole exists *in virtue of* its constituents or parts. Of course, this means that the non-truthmaker conjunct *also* grounds the alethic fact. I accept this: the interesting thing about the truthmaker is that it is *not* the proposition <P>, nor a fact related to how it represents, it is independent from it.

Three clarifications are needed. I write [P] ("the fact that P") as a shorthand. It does not carry the connotation, familiar as a critique of correspondence theories of truth, that for any given truth there is a correspondent fact for it⁵⁸. As basically every truthmaker theorist says, we must allow many truths to be made true by the same truthmaker. Further, I would like (AFB) to remain neutral about what entities can feature in these grounding claims. Thus, it may be the case that not only fact-like entities can take the place of [P], so we could have, for example, [[M<P>] + P]. I won't alter the notation, but I will relax the restrictions in section 3.4.

Here is the second clarification. I use "+" to demarcate the conjuncts. A "&" symbol was also available, but I did not want to create confusion with logical conjunction. (AFB) deals with entities, not sentences.

⁵⁷ The main difference with Saenz's (2018) account is (ABF), being more general, avoids positing a *deeply corresponds to* relation (see section 2.2.4). His and the views discussed before, barring their exceptionalities, are compatible with (AFB).

 $^{^{58}}$ (Armstrong, 2004, section 2.7) is emphatic on this.

Finally, I must clarify the expression "meaning facts". I could have written, as Audi (Forthcoming) does "<P> says that P". Recall that Saenz (2018), for his part, uses "<P> deeply corresponds to P". As I said in the introduction, I am not concerned in this thesis with theories of truth, or with theories of propositions. Thus, I must allow this view to be able to take up semantic relations like Saenz', or essential representation, like (Lowe, 2009), and other relations even, like Jago's (2018). The reader should replace this with whatever she thinks best captures how propositions represent the world or are apt to represent the world.

I realize that some initially plausible accounts of propositions and truth might be inconsistent with what I have said so far, and with what I will say in the coming chapters⁵⁹. Those issues are outside the scope of this thesis.

⁵⁹ As far as I can see, (AFB) conflicts with a Russellian account of semantic contribution. See (Jago, 2018, section 1.1) for some discussion Also, as (MacBride, 2020) notes, grounding solutions might require propositions to represent essentially, as in (Lowe, 2009).

Chapter III: Dealing with General Metaphysical Complaints

In this chapter, I defend (AFB) from arguments raised against views like it on the basis of general metaphysical considerations. In the first section, I present an overview of the problems to be dealt with. In the second, I respond to an argument from the grounding's irreflexivity. Next, I respond to the argument based on the idea that conjunctive facts are superfluous. In the fourth section, I respond to the objection that alethic-fact grounding might require us to treat existence as a property.

3.1.Some general metaphysical complaints

Paul Audi (Forthcoming) presents a dual challenge to understanding truthmaking as grounding, that emerges from two principles. First, the grounded entities claimed to be involved must be plausible by themselves. Second, the grounding relation must be posited when other relations are not enough⁶⁰. He surveys the possibility of identifying truthmaking as a case of grounding by considering the four combinations that fall out of two possible conceptions of grounding he calls as-building and as-making and of truthmaking (as relating a fact and a proposition, and two facts).

I am skeptical of Audi's conception of grounding as-making which, as he says, is based on the thought that grounding is of a kind with causation. If by that we mean that grounding and causation belong to the same family of relations, as in (Bennett, 2017), or that mathematical models for one apply to the other, as in (Schaffer, 2016) I am sympathetic⁶¹. But if we should understand groundings to be "oomphy"⁶², then I am currently unconvinced.

I find it useful to concentrate on the arguments he levies against the view he identifies with taking truthmaking as grounding as-building, with facts as relata. Even though he ultimately rejects it, he also claims that it is the most attractive candidate of those surveyed, and describes a view

⁶⁰ Se (Wilson, 2014).

⁶¹ I clarify. (Schaffer, 2016) applies mathematical models of causation to grounding. I don't think does show that causality underlies causation, or that it is a privileged building relation (see section 2.3.1). The models were developed for causation recently, maybe because the concept of causation is more central to science, maybe for more arbitrary sociohistorical reasons.

⁶² He mentions "the oomphiness of grounding" in (Audi, Forthcoming), models grounding in causation, and speaks of "work" done by the grounds (see footnote 84).

fundamentally like (AFB). He raises two arguments against such a view. First, that the conjunctive state of affairs is superfluous. Second, that constituents cannot be grounds.

These arguments are reinforced by Audi's notion that truthmaking is not a genuine relation, based on his skepticism about internal relations⁶³ and ontological "free lunches".

Similarly, Griffith (2014) distinguishes and criticises versions of truthmaking along the axes of predicationalism and operationalism (see 2.1.1), identifying three variations of the latter. Griffith proposes and reports on arguments against accounts classified according to whether they (i) restrict the relata of the grounding relation to truths on both sides, (ii) restrict the relata of grounding to facts, or (iii) lift the restriction.

Griffith dismisses (i) because it relates representations and other representations. This could not capture the motivation behind truthmaking: relating representation and non-representation. I am sympathetic to this diagnosis. As for (ii), the grounded fact is an alethic fact, so the link between non-representation and representation is saved, but Griffith argues that alethic facts generate a commitment to facts as entities, which some might find undesirable. I agree that this commitment exists.

He lists three further problems with (ii): given that only facts can be truthmakers (for it restricts the relata of grounding to facts), it forces us to treat existence as a property, and it commits us to gratuitous facts, like [[a is F] exists], to make true propositions for which predicational facts would have sufficed.

As for (iii), Griffith argues that allowing any entity in the left-hand side of the predicate makes grounding lose its explanatory status, since individuals lack the structure required to explain.

In the following sections, I will deal with each of these arguments.

3.2. The irreflexivity argument: the ban on constituents as grounds

⁶³ Armstrong defined internal relations (one of them truthmaking) as relations that obtain "given just the terms of the relation" (2004: 9), and no addition of being. He thought they could be reduced to identity/diversity (1997, Ch. 10). See (Cameron, 2014) for some discussion of internal relations. Audi (Forthcoming, section 7) rejects free lunches, even if they are internal relations. See (Schaffer, 2009, 2010) for a more ontologically generous outlook. See (Heil, 2009) for an account of internal relations in terms of truthmaking.

The argument goes that an account like (AFB) violates a principle according to which constituents cannot be grounds. (AFB) is premised on constituents being grounds, so a response to the argument must challenge the standing of the principle called upon.

Audi (Forthcoming) claims the source for this principle is the same intuition behind the ban on self-grounding. He suggests we look at these three, progressively more stringent, irreflexivity principles:

- (I₁) Nothing fully grounds itself.
- (I₂) Nothing plays a role in grounding itself.⁶⁴
- (I₃) Nothing plays a role in grounding what it partly constitutes.

The first two are understandably assumed (Rosen, 2010). Audi's argument invokes (I₃), since views like (AFB) violate it. Note, however, that even if Audi claims the motivations behind (I₃) are the same motivations behind (I₁) and (I₂), neither of these principles, or their conjunction, entail (I₃). Therefore, we are being asked to consider the plausibility of (I₃) against the plausibility of not just (AFB), but any view of grounding which allows grounding entities to overlap the grounded entities.

Overlapping is problematic, Audi argues, because, even though formal mereology might make us forget sometimes, an object and its constituents are not completely separate entities. He explains there is overlap between, say, a table and its leg at some spacetime point P_1 , because that both the table and the leg are at P_1 ; however, he claims, that the table is at P_1 is just the fact that the leg is at P_1 .

Audi presents us with a dilemma. "Either the constituent grounds a portion of the whole that it overlaps, or it grounds a portion that it does not overlap". As per the table example, the portion it overlaps is itself, so we would have an inadmissible violation of irreflexivity if we took the first horn. If we go for the second and claim it grounds the other portion, then there is no overlap between what is being grounded and the ground. In this case, there is no constitution going

⁶⁴ Rosen (2010), dubs this "strong irreflexivity". He thinks it's clearly sound: no fact can, along with others, make itself obtain.

on. To put his illustration of why roughly: if a and b constitute c, a cannot ground itself, and if it grounds b, then it doesn't help to ground c, it just grounds b.

We are told there is a way out of the dilemma. Audi says we could introduce the concept of "ontological overlap", such that parts "mereologically overlap" but don't ontologically overlap. But this is no solution, since, Audi claims, it would make the relation between the table and the leg more substantial, more mysterious, and threating a "double-counting" entities: the universe will be populated by the table plus its constituents in an illegitimate way. In his table and leg example, under this view, were table destroyed without change coming to its leg, the leg would be affected, would "lose being", although its matter would remain unchanged.

My response is ultimately that to think that relations with overlap can be grounding relations is more plausible than (I_3) . Note, for starters, that Audi is already arguing by calling these three principles "of increasing stringency". Partly constituting something is not a "step" towards being identical to that something. Audi needs to show that part and the whole are not distinct, that they are, in fact, *so much the same*, that we should rule out grounding relations from linking them.

Audi claims the motivating thoughts behind these principles are the same. (I₁) and (I₂) are supported by the links between grounding, priority, and dependence and explanation. Nothing depends on itself, is prior to itself, or explains itself (better: underpins an explanation of the form *a* because *a*). Supplying that thing with something further will not change these considerations.

But I believe these considerations stop short of (I₃). Is there no priority in the part over the whole? It seems to me there is and a view like (AFB) can claim respect to priority as long as the part has priority over the whole. Then, this issue turns on whether we think that this though is more plausible than the principle (I₃). A supporter of a view like (AFB) takes sides with the priority of parts over the whole, upheld by Russell and Moore⁶⁵.

Of course, one could be an egalitarian about parts and wholes, and think that parthood and its converse link parts and wholes in one symmetrical part-whole-hood property; or that nothing

⁶⁵ As discussed by (Schaffer, 2010). Even the supporter of (AFB) were to convert to priority monism, she would still be admitting a building relation that links wholes to parts, except the fundamentality would run on the other direction. See also (Bennett, 2017: 16).

is a part of anything. In either case, there would be no room for relative priority or fundamentality among the relata⁶⁶.

As for the dilemma, I reject the formulation in which, to ground the whole, the part must ground a portion of it. Recall Audi's example of a table. He says the reason that there is overlap between it and the leg at some spacetime point P_1 , is that both the table and the leg are at P_1 ; but that the table is at P_1 is just the fact that the leg is at P_1 . Per Audi's formulation of the dilemma, for the leg to ground the whole table, it would have to ground the portion which is at P_1 (which is itself); or the rest of the table at P_2 . But, if the latter, how could the leg ground that there is a full table at, say, P_3 ? My retort is that we never needed the mediation of portions. The leg does not ground what is going on at P_1 or P_2 . Its presence at P_1 grounds what is going on at P_3 "directly", not through grounding whatever is going on at P_2 or P_1 . I fail to see why we need to think that the leg has to ground a portion of the table, *it is* a portion or a part of the table (and thus it partially overlaps it) and grounds that there is a table there. It does not ground either the part it overlaps nor the part it does, overlap is not central to its grounding.

In this context, it seems that Audi would benefit from showing that constitution is identity, or that constitution and parthood never obtain⁶⁷. Let us set aside the latter two and concentrate on constitution as identity. I take it that the such a view captures the idea that the whole is nothing "over and above" its parts. And here I interject: that is precisely the role attributed to grounding for someone who upholds (AFB), since grounding is the relation that will allow us to countenance structured layers of reality. In fact, even nihilists might find a use for grounding (although perhaps not the predicational view)⁶⁸.

And this conceptual tool will allow us to deny that constitution is identity and preserve the thought that the whole is "nothing over and above" the parts. Do we have reason to deny that constitution is identity? I believe we do: a whole and its parts or constituents have different modal properties. The table would not survive being cut in small 1x1 cm cubes. But some parts of it, i.e. the cubes, would. The clay that makes up the statue would survive if it were flattened. The statue

⁶⁶ See (Heil, 2003) for layer skepticism. For mereological nihilism, see (Sider, 2013).

⁶⁷ See (Cameron, 2014) for discussion about constitution and identity.

⁶⁸ See (Sider, 2020).

wouldn't. These examples are well known⁶⁹. The idea that whole and part are distinct is not just a product of the axioms of mereology, but a product of reflection on identity and modal properties. All in all, the balance is on the side of grounding.

Here is a comment on Audi's conclusion that defenders of the "building conception" are committed to the inflationary view of composition. First, recall I rejected the dilemma. But there is a grain of truth in Audi's claim. I simply want to show that *some* inflation is hard to avoid, even before considerations of grounding.

Isn't Audi right in that the table being at P_1 and leg being there are the same fact? I think he is. But let me clarify: I believe that both of those ways of talking about what is going on at P_1 are deceiving. First, "there is a table at P_1 ": we cannot be talking literally here, because if P_1 is where the leg is, there is no room for a table there. The sense in which there is a table at P_1 is precisely that there is *partially* a table at P1. Second, take "there is a leg at P_1 ". What is the "leg"? Recall Sider's maximality requirement of sortals (see section 2.2.3), for a similar lesson applies here: to be the leg of a table is a relational property, the physical thing that "fills" P_1 will not inform us of this sortal property. Both the "there is a leg" and the "there is a table" phrases are misleading. The first is about the object at P_1 , and it conceals that it requires some other object to which the object at P_1 bears a relation. The second is also about the object at P_1 , and it also conceals the same concern for how things are outside of P_1 .

As (Audi, Forthcoming) writes, of course "ontologically speaking, there is nothing more than the leg in that region", but there being a leg in that region concerns facts about other regions and other objects. Maybe he would rephrase: there being a leg-shaped object at P_1 and leg being there are the same fact. As for P_1 , these two facts imply the same. But not for what goes on outside that region, for being a leg is a relational property which requires an object outside of said region. Again, Audi might want to rephrase: ontologically speaking there is nothing more than a legshaped object in that region. If by "ontologically" here, he means that we are not allowed to say that these leg-shaped bit of matter composes a leg of a table; I believe this is just denying composition, which is the thing we are arguing about.

⁶⁹ Believing in scattered objects is not enough to respond to the first example. It is one thing to believe that a table would survive scattering and another to think that it would survive any scattering, extreme as it may be.

What about the uncomfortable conclusion that, if the rest of the table is destroyed, the leg has been affected, though the leg-shaped object stays immutable? I wouldn't say that there was a "loss in being". But I think it is perfectly plausible that a relatively important relational property of *being a leg of a table* has been lost.

Let me punch back a bit before moving on. When Audi is laying down the separation between building and making views of grounding, he takes the requirement for overlap as a feature of the building account. As he says, in the making view, the terms are "entirely distinct, but one is responsible for the other"⁷⁰. But how initially plausible is this? Audi is asking us to understand that *being wrong* is "entirely distinct" from *being a lie*, and that *being red* is "entirely distinct" from *being maroon*, and so on. Are these things *entirely* distinct? I don't think they are: being maroon is a way of being red, being a lie is a way to act wrongfully, and so on. The argument is that, if we take Audi's demand for distinctiveness seriously, we are forced to make the claim that these two terms are entirely distinct. And of course, they are not the same, but I don't think they are *entirely distinct*. The same goes for parts and wholes.

3.3. The argument from the superfluous nature of conjunctive facts⁷¹

Audi (Forthcoming) proposes the argument with a question: "[w]hy bother with the conjunctive if you have the conjuncts?". He elaborates that there seems to be no plausible distinction between the conjunctive fact and its elements, it appears the conjunctive is just a conjunctive description of the elements. As Audi says, descriptions are for free, but they are not entities.

The initial appeal of the argument seems straightforward. If we have A and B, what need can we have for [A & B]? In (AFB), I opt for [A + B], so as to keep track that A and B are entities, not propositions or sentences. But this is just a matter of notation.

⁷⁰ I don't see why "making" would inherently require distinctiveness. Even if, as Audi seems to think, grounding is oomphy, why would that imply that the "oomph" flow between two entirely distinct things?

⁷¹ To avoid confusion, note that (Griffith, 2014) also warns us against something he calls "superfluity". It is a different issue, and he recognizes (fn. 27) the solution is to allow "predicational facts", not just existential ones, to be truthmakers. He claims this "diminishes the uniformity" of the view. I think existential facts are more suspicious than predicational ones, as I mention in the next section, so I reject his argument.

But is there really no plausible distinction between A and B and [A & B]?⁷². As for parts and wholes of objects, I think we seem able to point to modal distinctions. Perhaps the thought is that it does not have the same modal profile than the two conjunct facts taken together. Well, I agree: the "taken together" is what is doing the trick here, and I represent it as "+".

[A & B] is not a description of [A] and [B], since it is not a description, it is fact (or state of affairs), for the same reasons we want to say that both [A] and [B] are. One can deny facts as an ontological category, and then none of these are entities, they are all descriptions (of objects and properties, for example). But the issue is specifically with *conjunctive* facts. My reply is that it is equally valid to say that A and B are the entities and [A + B] a conjunctive description, *or* that A and B are partial descriptions of the entity [A + B]. Thus, Audi's observation about descriptions is neither here nor there. The key issue is whether we cannot have both the conjunct entities and the conjunctive ones, not whether one could be a definition. Either could be, the questions are (i) in which direction does the pressure point to, and (ii) what does it compel us to do?

The second question is the issue of elimination versus fundamentality or priority. Defenders of priority, like (Schaffer, 2009) are not concerned with admitting few entities, but only fundamental entities. The first question is the question of whether we prioritize (or eliminate) the putative conjunctive entity or the putative conjunct entities. I side on (ii) with Schaffer: I would like to let both terms be entities, just on different levels of priority. On (i), I think, along with Russell and others, that parts are more fundamental. Considerations of superfluity, if taken seriously, support an eliminativist answer to (ii): we should not believe the superfluous exists! But they do not settle (i): perhaps the parts are superfluous. In any case, I don't think Audi wants to commit to nihilism on the basis of these considerations.

Maybe the argument could be restricted to only affect fact-like entities, or restricted as to only allow individuals to form composites, avoiding nihilism. The argument would now involve a

⁷² A suggestion made by my supervisor is that the question might be about the distinction between A,B and A & B, pressuring us to say what the conjunction adds to the two elements. But the reformulated question applies more to propositions than to states of affairs.

denial of fact-composition⁷³, the kind required for a view like (AFB), while leaving individualcomposition intact.

The argument then would imply a stark difference between fact-composition and individual-composition. How plausible is that? Objects X and Y, and their composite Z seem to me to be parallel to facts A, B and their composite C. I could have written "(X + Y), of course. In fact, I would extend this to whatever one's ontology contains. I see no reason to deny that putative individuals like events (like John's playing the piano and Jane's playing the guitar), or states of affairs (like the rose being red and the rock being black); or for universals, as (Armstrong, 1989, section 5.2) admitted of conjunctive ones, stand in composition⁷⁴ relations.

My conclusion is that the reformulated objection that only individuals can form composites is *ad hoc*. They could form composites for the same reasons any other entities could.

In sum, contra Audi, I say that an alethic fact is grounded in its conjuncts.

3.4.The existence-as-property objection

Both Griffith and Audi attempt to show that any account of truthmaking as grounding that takes on board facts as the relata of grounding is bound to "reify"⁷⁵ existence and treat it like a property. Assume that an entity called "Batman" exists. The argument is that the grounding claim "Batman's existence grounds <Batman exists> is true" would require *existing* to be a property, which is a famously bad result, at least since Kant.

The simple solution would be to reject the constraint on the relata of grounding and admit objects. Some proponents of grounding allow for this (Rodriguez-Pereyra, 2015; Schaffer, 2009), others are not so liberal (Rosen, 2010). But if so, we have to deal with another issue, raised by (Griffith, 2014): individuals and substances are not good grounds because, following (Trogdon, 2013) they lack structure to be explanans. After all, if someone asks, "Why is <Batman exists>

⁷³ Not to be confused with Armstrong's non-mereological composition, which "builds" atomic facts. I am talking about a building relation which takes two facts as inputs and has another fact as an output; Armstrong was talking about a relation which takes objects and properties as inputs and has a fact as an output.

⁷⁴ More precisely, "composition-*like*" relations. There remains the issue of how to axiomatize this composition-like relation, and if such axiomatization "matches" that of mereology.

⁷⁵ It is not fully clear to me what reifying is. It is normally done through nominalization (e.g. saying "reification" instead of "reifying"). The word echoes complaints raised by (Dodd, 2002) and Caputo's nominalizations (see section 2.1.2). See (Rodriguez-Pereyra) (2005) for discussion.

true?", to simply reply "Batman" would be met with a strange look. Grammatically, one should say: "because Batman exists". Thus, it seems explanation pulls us back into reifying existence.

However, as Griffith also notes, one can deny grounding is explanation, as I did in section 2.1.2. The view I take up here is that explanation is a practice that aims to track grounding, and other explanatory relations. Thus, I can agree that "because Batman" is ungrammatical, which does not mean that there isn't a metaphysical explanatory relation between Batman and, say, the fact that <Batman exists> is true.

These considerations speak in favor of letting objects be terms of the grounding relation. That allows to say that Batman, the individual entity, is a constituent of and thus grounds the fact that <Batman exists> is true. That is the same relation that we have between the flower being red and the fact that <the rose is red> is true. That this relation holds equally for both Batman and the rose's redness does not immediately mean that it should license the same locutions, with a similar grammar.

Chapter IV: The argument from the transitivity of grounding

Grounding is widely taken to be transitive (Rosen, 2010): two grounding claims of the form "A grounds B" and "B grounds C" are accepted as entailing, by transitivity, a third claim of the form "A grounds C".

This feature of grounding has been used to generate an argument against identifying truthmaking with a case of grounding. As I understand it, the fundamental aim of this argument is to establish a tension between transitivity, a feature of grounding, and "aboutness", or "discernment" constraints on what legitimate truthmaking claims one can make. Thus, the argument is raised specifically against the identification of truthmaking as a case of grounding, and not at either concept taken separately (as some of the arguments I dealt with in the last chapter). The argument is not against, but assumes, the transitivity of grounding.

The gist of the argument is to arrive at a truthmaking claim that violates the constraints previously mentioned by resting on grounding claims (which, presumably, must be acceptable) and transitivity. This forces the conclusion that either grounding is not transitive, or truthmaking is not grounding. The first disjunct is undesirable, since generally grounding is taken to be transitive. The second is the negation of the target claim that truthmaking is a case of grounding. Further options involve rejecting the specific grounding claims that make up the chains.

In this chapter I will present two versions of the argument. I will adapt them to the view of truthmaking as grounding that I focused on since the second chapter. I will show that, even if one accepts some of the assumptions involved in these versions of the argument, there are acceptable answers to them which salvage a view like (AFB).

The argument has been mentioned by (Griffith, 2013) and (Rodriguez-Pereyra, 2015). However, the most articulated versions are brought up by (Tahko, 2013) and (Audi, Forthcoming). For reasons of space, I will only fully address the latter view. In the first section, I comment on Tahko's version of the argument. In the second, I present Audi's version. In the following sections, I explore ways of responding to the argument. I devote the final section to my favored response.

4.1. Tahko's version of the argument

There is one initial difficulty in presenting Tahko's version of the argument⁷⁶. Take Bottle to be a particular bottle of beer, and let us abridge "Pauli Exclusion Principle" as PEP.

The first of Tahko's premises is:

(v) The fact that Bottle exists is partially grounded in the fact that Bottle has a stable macrophysical structure.

In my notation, I would write:

(v*) [Bottle has a stable macrophysical structure] partially grounds [Bottle exists].

But neither (v) or (v*) are truthmaking (or truthgrounding) claims: [Bottle exists] is not a fact concerning the truth of a proposition. The same applies to the other premises. Thus, I adjust them all:

(T1) [Bottle has a stable macrophysical structure] partially grounds [<Bottle exists> is true].

(T2) [The PEP holds] partially grounds [Bottle has a stable macrophysical structure].

The previous two claims together with transitivity entail:

(T3) [The PEP holds] partially grounds [<Bottle exists> is true].

If (T3) is a legitimate grounding claim, Tahko denies it is a legitimate truthmaking claim because the "chaining [of the three claims] does not satisfy the explanatory requirement of truthmaking" (p. 337). I already talked about how aboutness and explanation relate in the previous section.

He argues we have failed the "discernment" task of truthmaking theory⁷⁷, and notes we could abandon such a task, as, he says, Schaffer (2010) seems to have done. Lack of discernment is tied in with aboutness and matching constraints, which I mentioned in section 1.1.4 and will come up again in the next section. According to Tahko, (T3) fails in discerning between any macrophysical objects whatsoever, since the PEP is equally responsible for the existence of all of

⁷⁶ (Rodriguez-Pereyra, 2015) makes a similar remark.

⁷⁷ He refers to (Armstrong, 2004: 18) and (Lowe, 2009, p. 201).

them: it doesn't explain why *this specific bottle* exists. This to me sounds like relevance being demanded out of grounding, not truthmaking. But we can reinterpret Tahko as claiming that the PEP cannot be a truthmaker for a proposition about a specific bottle.

(Shaffer, 2010) responds to the complaint that truthmaker monism tosses aboutness constraints, claiming that sentences, not propositions, have a subject matter, arguing that that subjects in sentences might vary even though the propositions expressed remain the same (2010, p. 316). Further, he says he can fall back on Lewis' proposal of distinguishing subject-matters through partitions over worlds: a proposition is "about" whatever is shared by the worlds in which it is true⁷⁸. I find these answers unsatisfying, partly because I don't think the issue is about subject matter as a grammatical category, and because partitions over worlds stop short at intensionality, and are not able to distinguish the subject matter of necessary truths or falsities.

But I do think there are several strategies available to a supporter of (AFB) to reject Tahko's conclusion.

First, we could reject (T1) as it is, since the fact that some entity has a stable structure partially cannot ground the existence of that entity, or the truth of the proposition that the entity exists. Any property like *having a stable structure*, or *being red*, or *being three-sided* seems to be existence-entailing⁷⁹. But entailment is not grounding. In fact, the other way around seems more natural: if having any such property entails existing, it is because having a property depends on existing. Saying of an object that it exists, on the other hand, entails no properties, except its necessary properties, or its essential properties⁸⁰. That is what seems to be Tahko's point, granted that having a stable structure is an essential or at least a necessary property of a bottle of beer (as it would have to be of all macrophysical objects). That would amount to symmetrical entailment, it is still not true that the existence of a thing depends or is grounded in its properties. It sounds extremely unnatural to say that the bottle of beer exists because it is rigid. Recall that grounding is asymmetric, even when it links things which entail each other. And, as I have argued, it is not clear one should do this the way (T1) requires.

⁷⁸ See (Lewis, 2003)

⁷⁹ See, for discussion of the concept of existence-entailing properties, (Crane, 2013, section 3.3)

⁸⁰ See, for essential properties, (Fine, 1994). Cameron (2008) argues that essentialist claims about an object are made true by the object.

In the familiar cases of grounding existence, the existence-facts are grounded in facts which do not involve the entities that figure in the grounds: the existence/arrangement of some things grounds the existence of a further thing. In contrast, (T1) claims that the property of something grounds the existence of that same thing. This makes it illegitimate. The argument needs to be adapted.

Even if adapted, (T2) is dubious because in includes the fact that the PEP holds. It cannot be that there is this object, the PEP, instantiating the property of *holding*. Tahko has written (2013, fn. 7) that the Pauli Exclusion Principle states that two fermions in a closed system cannot be in the same quantum state at the same time, or it states the fact that it is impossible for two electrons to occupy the same quantum state (2012, p. 411). Details about physics are unimportant here.

Talk of a principle "stating" that things are such and such, seems to treat [The PEP holds] as an alethic fact like [<It is impossible for two electrons to occupy the same quantum state> is true]. But then (T2) would become a case of one alethic fact grounding another, and specifically illegitimate. Under (AFB), such a truthmaking claim would be that a truth about some simples forming a bottle contains or is partly constituted by a truth about all such simples. This is absurd.

All in all, it seems that the PEP is a law of nature, and Tahko talks of the principle governing or controlling the behavior of fermions. As far as I know, supporters of a governing account of laws of nature⁸¹ don't talk of laws grounding the behavior of matter, but they do speak of them supporting counterfactuals about such behavior, for example. They might claim they are facts, but not in the sense of states of affairs. This is as close as we can get to the idea that the PEP grounds the arrangement of some simples, as in (T2).

This means that, for the argument to work, one needs to (i) commit to a view on laws of nature much like the governing view, but which (ii) specifically claims laws are entities which ground. Rejecting $(i)^{82}$, or even (ii) suffices to respond to the argument.

But even we admit (i) and (ii), there are several ways in which the argument might fail. Securing (ii) is not enough. One would to do so in such as way as to (iii) allow laws to ground not

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⁸¹ See, for all, (Tooley, 1977).
⁸² See, for (Earman & Roberts, 2005a; 2005b).

just instances of behavior, but also *that these instances are law-governed* (see Armstrong 2004: 127); and, further, (iv) avoiding laws being constituted in any way the instances.

If (iv) is not secured, with Armstrong (2004), we can accept (T3), since minimal truthmakers, which I defended in section 2.2.3, are available. The minimal truthmaker for <The bottle exists> is the bottle. We can accept that, when one finds less minimal truthmakers, discernment fades away.

4.2.Introducing Audi's version of the argument

(Audi, Forthcoming)⁸³ version of the argument is already targeted at a view like the one I elaborate on in this thesis. So, it is ready to be imported here, with very small adaptations:

(A1) [The rose is red] partially grounds [<The rose is red > is true].

(A2) [<The rose is red> is true] partially grounds [<Some propositions are true> is true]

By transitivity, it follows:

(A3) [The rose is red] partially grounds [<Some propositions are true> is true].

Put in words: the fact that the rose is red grounds the fact that the proposition that the rose is red is true. This latter fact grounds the fact that the proposition that some propositions are true is true. By transitivity, then, the fact that the rose is red grounds the fact that the proposition that some propositions are true is true.

(A1) is a claim of alethic-fact grounding to which (AFB) commits us. (A2) is an example of a grounding claim of a true generalization being grounded in its instances, which is highly plausible (Rosen, 2010). (A3) violates aboutness constraints: <Some propositions are true> has nothing to do with roses, or with red, and thus is not an acceptable truthmaking claim.

Audi puts the point in terms of "matching": generally, "[t]here is no guarantee that the constituents of the end of the chain match the constituents of the other end" (Audi, Forthcoming). He observes that claiming that [The rose is red] does not necessitate the alethic fact in question does not help us: Necessitation cannot *replace* aboutness or matching. In fact, as I see it

⁸³ His version is inspired in (Griffith, 2014).

necessitating truthmakers flout aboutness considerations is a shortcoming of modal accounts of truthmaking, as I mentioned in sections 1.1.4 and 1.3.

Before presenting my favored response in the final section, let me address briefly other options.

4.2.1. Accepting (A3)

A first option is to accept (A1), (A2), and that they imply (A3), concluding that truthmaking does not require aboutness. Why should we require these constraints? One could think that truthmakers cannot be explanatorily relevant to the truth propositions they don't "match", or are relevant to, or which is about them. But this cannot be the whole reason. If the problem was just that the elements at the start of the chain are not explanatory to the elements in the end, why wouldn't *the chain itself* provide the explanation? Imagine someone asks, "Why is it true that some propositions are true?". The answer, "Because this rose is red" is certainly a bad explanation. But what if we add, "See, this rose being red makes <the rose is red> true, so, it makes it true that some propositions are true"? Why can't this discharge the explanatory requirements of the rose's being red?

The reason is that aboutness, relevance, or matching constraints don't simply follow from truthmaking being explanatory. The explanatory nature of other metaphysical relations, like causation, is preserved in transitive chains. These constraints require that truthmakers support explanation *in a certain way*: The rose being red is explanatory *because* <the rose is red> is about roses.

Audi prefers the expression "matching"⁸⁴. He argues that matching is a core desideratum for truthmakers, since it secures that they are related in some way at least to their truthbearers. This is what I have been calling "aboutness" or relevance constraints. He claims the best account of this matching is semantic⁸⁵. I would prefer to use the name "matching" for the semantic versions of this relevance-securing relation, but this is a matter of notation.

⁸⁴ Audi (Forthcoming) makes interesting remarks about matching and what he terms "making" accounts of grounding. He claims this version of grounding demands "work" from the ground. Thus, he says, such accounts are antithetical to the concept of matching, since it implies no work is being done (to match, two things must simply *be*). I don't see how other cases of grounding (e.g. the grounding of moral properties) involve "work".

⁸⁵ He points to (Rasmussen, 2013) as an alternative.

(AFB) leaves us free to choose our preferred way to secure relevance. It could incorporate matching requirements. Saenz' (2018) account of truthmaking, which involved a *deeply corresponding to* relation, could be a good example. To incorporate a requirement like that into (AFB), we would be to precisify the non-truthmaker conjunct of the formula. As I am not interested in a semantic theory, or a theory of propositions, I am not interested in doing so here.

4.2.2. Rejecting transitivity, (A1), or only (A3)

A second option is to reject the otherwise intuitive transitive nature of grounding. Some philosophers haver argued against this features independently of truthmaking (Schaffer, 2012). Others have relied on it (Rodriguez-Pereyra, 2015). I believe the former set of arguments have been met (Litland, 2013; Raven, 2013; Rodriguez-Pereyra, 2015), while the latter make use of truthmaking and alethic fact-grounding, as I covered in section 2.2.1. For these reasons, I will not reject transitivity here⁸⁶.

(A1) is paradigmatic by (AFB), so it must be accepted.

Finally, appealing to any principle of truthmaking that would allow us to reject (A3) *without rejecting* (A1) or (A2) would not work. The argument works precisely because the features of grounding seem inconsistent with principles that supposedly govern truthmaking.

I believe the best option is to reject (A2), preserving the transitivity of grounding and relevance constraints on the truthmakers.

4.3.Rejecting (A2)

I want to make two initial observations about (A2), which support an initially imprecise diagnosis: that it is an "odd" grounding claim. I believe there is something suspicious about (A2) that needs to be explained. Then, by relying on (AFB), I will offer an explanation of these suspicions. This will also give us reasons to reject (A2).

First, (A2) relates two alethic facts. (AFB) commits us to alethic facts being grounded, but (A2) is special in that it places an alethic fact as grounds. What sort of facts could alethic facts

⁸⁶ It is worth noting that, in adopting Bennett's framework (see section 2.3.1), I should remain open as to whether grounding is transitive. and even consider rejecting it on the face of the argument I am discussing. I will not, but this just makes my job harder.

ground? As I mentioned, (A2) is a case of an instance grounding a generalization. I think this model of grounding is acceptable. My point is that alethic facts are poor grounds, there does not seem much grounded in them⁸⁷.

Second, (A2) includes the proposition that some propositions are true as a constituent of its right-hand side alethic fact. Let us abridge \langle Some propositions are true \rangle as \langle S \rangle . \langle S \rangle is problematic since, even before considering a specific account of truthmaking, it seems like a proposition whose truth would support itself, since, presumably \langle S \rangle is included in the true propositions that it is about. If not, it is not true. And, to include it in the alethic fact [\langle S \rangle is true] does not alleviate this paradox-like nature.

In fact, principles of grounding serve to construct paradox-like puzzles when related to propositions or facts similar to $\langle S \rangle$ (Fine, 2010). Here is an example: [something exists] seems like a self-grounding state of affairs, for states of affairs exist. $\langle A \rangle$ proposition is true> seems self-truth-grounding in a similar manner. Puzzles like these are what seem to drive (Rodriguez-Pereyra, 2015) to his already mentioned unorthodox results. The source of the problems here is not truthmaking but grounding itself.

Audi (forthcoming, s 7-8) actually upholds a view like (AFB), except he denies constituents ground and takes the constituents I identify in (AFB) with "conditions" needed for an alethic fact⁸⁸. I think he faces a similar problem as the one he poses for (AFB), since he will have to tell us what it is for the world to be such that $\langle S \rangle$ is true. The worldly condition for the truth of $\langle S \rangle$ either includes the truth of propositions like \langle The rose is red \rangle or not. Audi can deny that any particular proposition is true is required, but if any are true, then each must be one of those things that "matches" $\langle S \rangle$.

I believe (AFB) will help us clarify what is suspicious or paradox-like about (A2). Recall:

(AFB): $[< P > is true] = [[M_{< P >}] + [P]]$

Applied to the left-hand side of (A2), which is an alethic fact, we get:

 $^{^{87}}$ Here is a possibility outside of truthmaking: [<P> is true] grounds [<P> has truth-value]. If <P> is essentially a proposition, it might be <P> itself what grounds that it has truth value.

⁸⁸ This is also (Trogdon, Forthcoming, pp. 11-12) diagnosis of Audi's position.

 $[\langle S \rangle \text{ is true}] = [[M_{\langle S \rangle}] + [\text{Some propositions are true}]]$

(A2) involves the state of affairs that some propositions are true. Recall also that a generalization of the form "some *a*s are F" is taken to be grounded in [Fa] (Rosen, 2010, p. 117).

As with Audi's conditions for truth, and with grounding puzzles, the difficulty is finding what this [Some propositions are true] is grounded in. The predicate "true" in our proposition <S> is clearly distributable⁸⁹, as "red" is for <Some cars are red>. As such, whether we think propositions like these involve reducible plural quantification or not, I believe that their "demands on the world" cannot be irreducibly plural.

The truth condition for \langle Some cars are red \rangle is that there is at least one *x* and one *y* such that: *x* is red, *y* is red, *x* is a car, *y* is a car, and $x \neq y$. If truthmaker theorists are able to claim that, say, my red car and your red car, and her red car, and so on, are the truthmakers for propositions like this, then they should allowed to say that the true proposition $\langle P \rangle$ and the true proposition $\langle Q \rangle$, and so on, are the truthmakers for $\langle S \rangle$.

Thus, the state of affairs [*Faa*] is the state of affairs [*F*(a_1 , a_2 , a_3)], although this identity is not knowable *a priori*. If predicate F is distributable, then [*F*(a_1 , a_2 , a_3)] is grounded in [Fa₁], [*Fa*₂], and [*Fa*₃]. This is how instances ground generalizations, for a supporter of (AFB).

To respond to the argument, we must note that the reasoning of the previous paragraphs is not available for $\langle S \rangle$. [Some propositions are true] would have to be [$\langle P \rangle$, $\langle Q \rangle$, $\langle R \rangle$... are true]. Then, $\langle S \rangle$ is either identical to one of $\langle P \rangle$, $\langle Q \rangle$, $\langle R \rangle$, etc., or not. If it is not, it is not a true proposition, and there is no corresponding alethic fact. If it is, then this is a case of a selfconstituting object: The state of affairs [Some propositions are true] would have to contain itself. Self-containing objects are absurd⁹⁰, and on that basis, I reject (A2).

If there is no state of affairs like [Some propositions are true] since they should be selfcontaining, then (AFB) has told us exactly what was wrong with <S>. It has explained what was suspicious or paradox-like: <S> and other propositions demand, for their truth, absurd things from

⁸⁹ A distributable predicate is such that $\langle Faa \rangle$ entails $\langle Fa_1, Fa_2, Fa_3 \dots \rangle$. Examples of a non-distributable predicate is "arranged in a circle".

⁹⁰ (Rodriguez-Pereyra, 2015) passingly mentions that such objects are not so absurd for him.

reality. And thus, $\langle S \rangle$ is not true, and there is no alethic fact of its truth. (A2) is not a valid grounding claim⁹¹.

Allow me to clarify before finishing, that it would be imprecise to call $\langle S \rangle$ and other propositions paradoxical. Paradoxical propositions, like the Liar, lead to contradiction either if they are true or false: the Liar is false if it is true, and it is true if it is false, and so on. The problem I highlighted here is different. If one ignores views like (AFB), $\langle S \rangle$ can be consistently true. The issues start when we consider how to ground their truth.

 $^{^{91}}$ A similar answer is available if we replaced $\langle S \rangle$ for a singular existential like $\langle A \rangle$ proposition is true \rangle , since all true propositions would be its truthmakers (any given true proposition would be its minimal truthmaker).

Conclusions

Truthmaking is a difficult and contested notion. The motivations behind it seem clear and commonsensical. But, as with some things in philosophy, when we start digging a bit into it, the semblance of clarity and common sense seem to fade away. To nail down a principle of truthmaking that would capture our motivations aptly is not an easy task. As I attempted to defend in the first chapter, it seems that our concept of grounding is a good candidate to carry out that task. Assailed by its own difficulties and also complicated by philosophical discussion, it is difficult even to put it into work. However, as I tried to show, there is some plausibility to this, owing to grounding being the kind of relation that does not leave us with unexplained, Moorean connections.

As I covered in length in the second chapter, there are several options available to us to formulate truthmaking in terms of grounding. I reviewed an ontologically less committing option, which made use of operational grounding, concluding it seemed to be in contrast with the motivating thoughts behind truthmaking. Next, I presented and discussed different, more committing ways of formulating truthmaking.

I introduced the thought that alethic-fact grounding was a sound idea to formulate truthmaking, an idea that underlies several proposals. These, however, presented particular complications that could be separated from alethic-fact grounding. Thus, I separated alethic-fact grounding from metaphysical priority monism, and defended minimal truthmakers; I pointed to the difficulties of defining truth and propositions in terms of truthmaking and set-membership, and introduced an account that made use of a relation of deep correspondence.

With the help of a useful metaphysical framework, inspired by Bennett, and the views surveyed until that point, I proposed an account which was somewhat general, but could carry the main benefits identified so far from alethic-fact grounding, without commitment to the more heavyweight theses I had encountered. Of course, *some* commitments were already on board, like a commitment to states of affairs. I called this view (AFB).

In the final two chapters, I defended (AFB) from important and difficult challenges. In the third chapter, I argued that that constituents ground what they constitute, rejecting a proposed ban on this form of grounding. I claimed that reasons for admitting a composition relation extend to all of our admitted ontological categories. Finally, I accepted a liberalization of the restriction of

the relata of grounding, allowing objects to ground. I offered reasons to make this result more palatable.

In the fourth chapter, I defended the view from the argument that, given that grounding is transitive, alethic-fact grounding would commit us to unacceptably non-discriminating or non-matching truthmakers. I responded a first version of the argument by bearing out the metaphysical assumptions required for it to work, which were probably impossible to meet, since they should also block an analogy with non-minimal truthmakers. I responded to a more recent version of the argument by claiming that much of the trouble comes from the notion of ground in relation to certain paradox-like facts and propositions. I argued that (AFB) explains these problems, by clarifying that, to explain their truth, there would have to be self-containing states of affairs, which are absurd. This allowed me to reject the truth of key propositions required for the argument.

I remained always keenly aware of the limitations of this thesis. Specifically, I purposefully avoided entering debates about what truth is and discussing theories of propositions. For a full theory of truthmaking, those limitations must be overcome. I hope they are acceptable in this context.

I think that (AFB) has answers to many of the difficult criticism levied against it and similar views. But clearly, high prices are paid for it, even without considering the topics I mention in the last paragraph. As I mentioned in several places, I take grounding not to be explanation, but the basis of explanation, to be the structure of reality that allows for explanation to be meaningful and true. Alternative, ontologically deflationary stories of this notion gain track. At the same time, truthmaker semantics, without truthmaker ontologies, develop.

As such, my conclusion is that, currently, (AFB) is a live option. But also, as I mentioned, alternative, deflationary views are alive and should be considered. I hope to have established that, for those who are willing to pay some ontological price, (AFB) can respond to at least some metaphysical worries, retains the basic desiderata of truthmaking, and captures a lot of what seems important and, perhaps more importantly, true of that thought.

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