

# STUDIES IN THEORETICAL PHILOSOPHY

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The Modalities  
of Essence and Ground




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*To Elena*



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# 1 Introduction

In this first chapter I present the core idea of this book and lay out its structure. Furthermore, I introduce its main topics. I will start by painting a big picture of the view I want to develop in this work and I situate it in the present philosophical landscape. Afterwards, I will briefly discuss the central concepts of essence, grounding and metaphysical modality and I will specify the ways in which I will use them in the subsequent chapters. Finally, an overview of the following chapters will be provided.

## 1.1 The Basic Idea

In this book I develop and defend a unified semantic treatment of essence, grounding and metaphysical modality. Statements like “Socrates is essentially wise”, “Possibly the number of ducks in Hamburg is odd” and “Bob the ball is red grounds Bob the ball is coloured” can be modelled in the resulting semantics. It will take the form of a world semantics similar to the standard possible world semantics for metaphysical modality. One of its central features will be that not only possible worlds, but also impossible worlds – ways the world might not have been – are its semantic values. The semantics will be argued to shed light on the deep philosophical connections between three of the most important posits of contemporary metaphysics. It will be shown to bear relevance to some important and controversial issues regarding the relations between essence, ground and modality.

The core idea standing in the background of my semantics is to model essences with accessibility-relations, relations that specify which worlds can see other worlds, metaphorically speaking. Essences modelled with accessibility-relations will be the sole primitive of the view to be developed. Accounts of grounding and metaphysical modality will be given in terms of essence.

Do I provide a reductive account of grounding and modality, an account that reduces these metaphysical posits to essence? I do not wish to commit to any reductive claims. Nevertheless, my results might vindicate the project of reducing grounding and modality to essence, for providing an account of grounding and modality in terms of essence can be an important step in such a project. Why do I not wish to commit to the reductive

project? First, an account of the mentioned sort is not sufficient for establishing that a reductive project has been successfully carried out. One can account for mass in terms of density and volume, but this is no reason to believe that mass reduces to density and volume.<sup>1</sup> Second, it is not necessary to provide a reductive account for my results to be metaphysically important. Showing that the three posits under discussion are deeply connected and systematically related is an interesting result in its own light. It would amount to a methodological prejudice to claim that only a reductive account could be metaphysically significant. Still, if you think that giving reductive accounts is the gold-standard of metaphysical theorizing, then you are welcome to read this work as paving the way for a reductive project.

In some sense my work is a piece of philosophical conservatism. I use the standard ingredients of the most prominent semantics for modality and extend them to give a semantics for essence and grounding. The currently best-developed semantics for grounding is the truthmaker-semantics developed and defended by Kit Fine (2012a,b), which radically departs from the habit of modelling philosophically relevant phenomena with (possible) worlds. Instead of breaking with the influential philosophical tradition of thinking in terms of possible worlds, this work seeks to update this method.

These remarks should be understood in the context of a certain narrative of some recent developments in philosophy, especially in metaphysics.<sup>2</sup> In the second half of the 20th century it has been enormously popular to use modal notions to address a variety of philosophical, especially metaphysical, issues. For example, propositions have often been identified with or modelled as sets of possible worlds, a method that has also been used in linguistics (see Heim and Kratzer 1998; Kratzer 1977 for examples from linguistics). The most articulate and influential defence of modal metaphysics can probably be found in the work of David Lewis (1986) who famously took the acceptance of possible worlds to grant one access to “Philosophers’ Paradise”.

According to the mentioned narrative, more and more philosophers have come to believe that metaphysically interesting philosophical notions cannot be defined in modal terms.<sup>3</sup> For example, Kit Fine (1994a) has argued that there is no modal definition of the notion of essence and in the debate

<sup>1</sup> See Dorr and Hawthorne 2013 for a very similar case in a different context. Admittedly, the case for a reduction of grounding and modality to essence is not exactly parallel, for we can account for each of them in terms of essence and arguably one cannot account for essence in terms of grounding and/or modality. Still, the case shows that one cannot take it for granted that providing an account of metaphysical posits in terms of a further posit is sufficient for providing a reductive account.

<sup>2</sup> The narrative I have in mind is laid out in e.g. Nolan 2014.

<sup>3</sup> Here I take modal terms to be those that can be modelled in a standard possible worlds semantics. I will later argue that essences are fine-grained localized modalities, but this does not make a definition of, say, grounding in terms of essence a modal definition in the present sense.

about ground, which will be briefly surveyed later on, it is nearly universally accepted that there is no purely modal account of grounding available.

One way in which philosophers have reacted to the observation that many useful metaphysical notions resist a modal definition is by extending the resources of possible world semantics by introducing impossible worlds into the picture. World semantics that make crucial use of impossible worlds have been put forward to model the epistemic situation of agents that fail to be perfectly rational (see e.g. Jago 2014), counterpossibles (i.e. counterfactual conditionals that have a necessarily false antecedent; see e.g. Nolan 1997), and intentional operators (see e.g. Priest 2005). Fine's semantics of essence also makes use of impossible worlds.<sup>4</sup> Notwithstanding the popularity of impossible worlds in these other domains (see Berto 2013 for an overview), the strategy of using impossible worlds to model grounding has not yet been explored in detail.<sup>5</sup> This work will close this gap.

The mentioned narrative is clearly an extreme simplification of the recent developments in metaphysics. Nevertheless, it is helpful to situate this work in the current metaphysical debate.

The above description might lead the reader to suspect that this work is mainly a contribution to questions regarding formal semantics and has little impact on the philosophical discussions that go beyond semantic theorising. This is not so. Semantic considerations often guide or at least inspire philosophical thought, as the frequent use of talk about possible worlds in metaphysical arguments during the "heyday of modal logic"<sup>6</sup> indicates. The semantics I develop and its discussion will contribute to the philosophical debate in numerous ways. I will briefly indicate only three of them below.

First, the construction of the semantics is based on the assumption that essence, grounding and metaphysical modality are systematically related. By showing that this assumption leads to a plausible and fruitful account of the three and their interrelation, it lends plausibility to it and contributes to the unification of some of the central topics of metaphysics.

Second, the philosophical discussion of the semantics vindicates the project of developing a theory of ground. That talk about grounding should play a major role in metaphysics is denied by some who hold that there is no unified phenomenon to give a theory of (see e.g. Daly 2012; Hofweber 2009; Wilson 2014). I address this worry by providing reasons to hold that there indeed is a unified phenomenon, all cases of grounding are unified by their systematic connection to essence.

<sup>4</sup> See Fine 2000. See ch. 3 § 2 of this work for a brief exposition of Fine's semantics for essence.

<sup>5</sup> A notable exceptions is Barak Krakauer (2012), who argues for a close connection between grounding and counterpossibles. This connection is also defended in Wilson 2017. My approach is very different from the approaches of both Krakauer and Wilson.

<sup>6</sup> This formulation can be found at various places. One of them is Correia and Schnieder 2012 p. 10.

Third, this work will add to the debate about the modal status of grounding. Do grounds always necessitate what they ground? Many philosophers have argued that this is not always so.<sup>7</sup> Still, a precise account of how cases of grounding that are contingent in this sense can be squared with plausible assumptions about the relation between essence and grounding is still lacking. This work attempts to close this gap. Along the way, I will provide a discussion of the modal status of essence.

This list is not exhaustive, but it shows that with this work I have ambitions that reach far beyond questions of semantic theorising and that I will touch upon various metaphysical issues.

After painting this big picture of what will follow, I will give more detailed expositions of grounding, essence and metaphysical modality in the next three sections. These sections are of importance insofar as they not only introduce the main topics of this book, but also clarify the ways in which I will talk about them throughout this work.

## 1.2 Metaphysical Modality

Following Gideon Rosen (2006), one might informally elucidate metaphysical modality in the following way: Metaphysical modality is a real modality that is absolute.<sup>8</sup> To be real, a modality has to be “alethic, non-epistemic, and sometimes substantive or synthetic” (ibid. p. 16) according to Rosen. I will briefly explain each of these features.

A modality is alethic if and only if whatever is necessarily the case according to this modality is the case. Deontic modality might fail to be alethic if its necessity-operator is defined such that something is deontically necessary iff it is the case at every world where no moral law is broken (a world where no agent ever acts in a morally impermissible way). It is (arguably) necessary in this sense that no cat is tortured. That this is deontically necessary is perfectly compatible with some cats actually being tortured.

From a technical perspective, a modality is alethic if it obeys the modal axiom T. This will become relevant when I argue that all essential accessibility-relations are reflexive in ch. 4 § 6.

For a modality to be non-epistemic is for it to not be dependent on the epistemic situation of any (non-divine) agent.<sup>9</sup> A concept of modality ac-

<sup>7</sup> See ch. 6 § 6 for examples and discussion.

<sup>8</sup> Rosen thinks that there are two different conceptions of metaphysical modality that both fit this informal elucidation. As I will indicate in the next section, his *anti-anselmian* conception of essence, which is the source of these two different conceptions, sits at odds with my conception of essence. For this reason, I am happy to endorse the stronger claim that metaphysical modality is *the* real modality that is absolute.

<sup>9</sup> Some theists hold that what is necessary depends on how god thinks up the natures of things (see e.g. Leftow 2012) and that hence what is necessary depends on the epistemic situation of god.

ording to which something is necessary iff its truth is entailed by something that Klaus knows is clearly epistemic. This concept of an epistemic modality is also alethic, for whatever is entailed by a truth is true and whatever Klaus knows is true (by the factivity of *knows*).

For a modality to be “sometimes substantive or synthetic” in Rosen’s sense, it has to invoke necessities that are neither conceptual nor logical truths. Paradigm examples of necessities that are substantive in this sense are Kripkean necessities a posteriori like water being necessarily identical to  $H_2O$  or gold having the atomic number 79. Metaphysical modality only has to be sometimes (rather than always) substantive, for some metaphysical necessities are conceptual or logical truths. It is characteristic of metaphysical modality that substantial truths are among the necessary truths, but all roses being roses also qualifies as metaphysically necessary albeit not being substantial in the pertinent sense.

Another feature mentioned as a hallmark of metaphysical modality by Rosen and others is its being absolute (see e.g. Hale 1996). What is metaphysically necessary is not only necessary relative to certain further conditions, but it is necessary in an absolute sense. That one necessarily crosses the English Channel when one travels from Brussels to London is a necessity that holds relative to the actual facts about geography, but it is not absolutely necessary, for the relevant facts about geography might have been different. That two plus two equals for is necessary no matter what and qualifies as absolutely necessary. A characterisation of necessity no matter what, or absolute necessity, proposed by Hale is that “what is absolutely necessary is what would be the case no matter what else was the case” (Hale 2012 p. 121).<sup>10</sup>

A further condition that is characteristic of metaphysical modality is that it is all-encompassing. One could construct a notion of necessity, *watery-logical necessity*, such that something is watery-logically necessary iff it is conceptually necessary or an a posteriori metaphysical necessity about water. This modality would clearly be alethic and non-epistemic as well as sometimes substantive (namely when it comes to a posteriori necessities about water). One might even think that it is absolute. Whatever is a watery-logical necessity is also metaphysically necessary. Consequently, if every metaphysical necessity is absolute, then so is every watery-logical necessity. However, watery-logical modality is different from metaphysical modality, for it is a watery-logical possibility that gold has the atomic

<sup>10</sup> A feature of this characterisation is that it depends on the assumption that counterpossibles, counterfactuals with an impossible antecedent, are vacuously true. See Williamson 2007 p. 171ff for a defence of this thesis. Note that Hale’s characterisation is trivially characterising every modality as absolute if the salient sense of impossible is the one corresponding to the modality in question. Hence the criterion relies on there being a salient and independent sense of impossibility. This is used in the argument for metaphysical modality being the widest all-encompassing modality below.

number 80 although this (given some Kripkean assumptions) fails to be a metaphysical possibility.

What distinguishes metaphysical modality from watery-logical modality is that it is all-encompassing. An all-encompassing modality is a modality that is not restricted to a certain topic or area of discourse. When it comes to watery-logical modality, attention is restricted to necessities that are concerned with logical truths and with water. When it comes to metaphysical modality, there is no such restriction in place.

In ch. 5 § 3 I will use the assumption that metaphysical modality is a widest all-encompassing real modality. Intuitively, a modality is wider than another if it gives us more possibilities. More formally, wideness should be understood as follows: *m*-modality is at least as wide as *n*-modality iff necessarily, every *m*-necessity is an *n*-necessity. *m*-modality is wider than *n*-modality iff it is at least as wide as *n*-modality, but *n*-modality is not at least as wide as *m*-modality. That metaphysical modality is a widest all-encompassing real modality is the claim that if some *r*-modality is an all-encompassing real modality, then metaphysical modality is at least as wide as *r*-modality. Note that this way to spell out the assumption makes it compatible with holding that whatever is nomologically necessary is metaphysically necessary (see e.g. Bird 2007). Even if nomological modality is an all-encompassing real modality and nomological necessity is as wide as metaphysical modality, metaphysical modality can still be as wide as nomological modality. Metaphysical modality can be the widest all-encompassing real modality without being wider than every other all-encompassing real modality.<sup>11</sup>

Why do I hold that metaphysical modality is the widest all-encompassing real modality? Assume that it is not. Then there is a wider all-encompassing real modality than metaphysical modality, *w*-modality. But if *w*-modality is wider than metaphysical modality, then metaphysical necessity is *w*-modality relativised to whatever makes up for the difference between *w*-modality and metaphysical modality. Consequently, metaphysical modality fails to be absolute if there is a wider all-encompassing modality.

This point can be made more clearly given the Halean characterization of the absolutely necessary as “what would be the case no matter what else was the case” (Hale 2012 p. 121). Assume that it is *w*-possible (although metaphysically impossible) that gold has the atomic number 80. Further assume that at all *w*-possible worlds at which gold has the atomic number 80, it does not at the same time have the atomic number 79. Now it plausibly fails to be the case that if gold had the atomic number 80, then gold would have the atomic number 79. There is a world at which gold does not have the atomic number 79 and does have the atomic number 80 that is possible

<sup>11</sup> One might take my reading of “widest” to be non-standard, for I do not require uniqueness, but this weaker reading is sufficient for my argumentation.

in a real and all-encompassing sense whereas it is not possible in this sense that gold has both the atomic number 80 and the atomic number 79. To nevertheless uphold that “If gold had the atomic number 80, then gold would have the atomic number 79” comes out true, one would have to insist that the *w*-possible world at which gold has the atomic number 80 has to be ignored when the given counterfactual conditional is evaluated. Doing so, however, seems to be both unmotivated and *ad hoc*.

These remarks, so I hope, give the reader a basic idea of what I have in mind when I speak about metaphysical modality. It is not a coincidence that I didn’t say anything about the metaphysics of modality in this section. My aim is rather to give a role-description for metaphysical modality that has to be done justice to by the essentialist account of metaphysical modality to be developed.

### 1.3 Essence

Essence will be the sole primitive of the semantic apparatus to be developed. One traditional way to elucidate essences is to associate them with definitions of a special sort, *real definitions* that convey the nature of an object (or what it is to be the object). The way I would like to approach essences in this work is in line with this tradition. The tradition of associating essences and definitions can be traced back to Aristotle, who takes a definition to be a *logos* that signifies an essence (see *Topics* 102a3). John Locke famously distinguished between the *nominal essence* and the *real essence*. In this work I will be concerned with what Locke would have called the real essence. According to Locke, the real essence “may be taken for the very being of any thing, whereby it is, what it is” (Locke 1689 III.iii.15).

Uncontroversial examples regarding what is essential to what are hard to come by, but still there are various plausible candidates. You, the reader, are plausibly essentially a person. Being a person is definitional of what you are, it lies in your nature to be a person. What it is to disjoin two statements is essentially to form a statement that is true if at least one of the disjoined statements is true. That’s just definitional of what it is to disjoin two statements. As a last example, it is essential to the fictional object Sherlock Holmes that it is described in a story authored by Arthur Conan Doyle.

In this work essence is assumed to be more fine-grained than metaphysical modality. I accept that no definition of essence in modal terms is available. The classic example given by Fine (1994a) in defence of this thesis involves Socrates and  $\{ \text{Socrates} \}$ , the set that has Socrates as its only member. Arguably, it is necessary that  $\{ \text{Socrates} \}$  exists iff Socrates does. A straightforward modal definition of essence takes an object to have all and only



those properties essentially that it necessarily has if it exists.<sup>12</sup> Socrates necessarily belongs to { Socrates } if he exists, so according to the modal criterion he essentially has the property of being a member of { Socrates }. This, however, is taken to be implausible by Fine, who holds that “[t]here is nothing in the nature of a person (...) which demands that he belongs to this or that set (...)” (Fine 1994a p. 5).

I won’t assume that all essences are the essences of objects. I acknowledge that there are generic essences and alethic essences, essences of what it is to be a certain way and essences of what it is for something to be the case, respectively.<sup>13</sup> One can ask questions about the nature of being red or the nature of what it is for it to be the case that Bob is red or blue.<sup>14</sup> These seem to be perfectly fine questions, at least if questions about natures are generally accepted as intelligible. The opponent of generic and alethic essences might wish to reduce them to objectual essences by reducing generic essences to the essences of properties and alethic essences to the essences of propositions. Correia objects against the reduction of generic essences to objectual essences in his Correia (2006). Questions about the nature of what it is to be red seem to be independent from whether one believes in the existence of properties or not, so Correia plausibly argues. Even someone who does not believe that there is such a thing as the property of redness can happily say that it is essential to what it is to be red that what is red is visible. To use Correia’s example, “the combination of the view that men, as such, are animals and of the view that there are no properties does not seem to be self-undermining” (ibid. p. 761). This point can be strengthened by showing that one can legitimately talk about the nature of what it is to be a certain way in a case where it is known that the corresponding property does not exist. Correia observes that there cannot be a property expressed by the predicate “is a non-self-instantiating property”.<sup>15</sup> Nevertheless one can ask and even answer questions about the nature of what it is to be a self-instantiating property. This last point does not seem to straightforwardly carry over to the case of alethic essences, but it nevertheless puts pressure on the reductionist strategy as a whole.

My acceptance of generic and alethic essences has consequences for the way I canonically formulate essentialist statements. There are two ways that are frequently used to express statements about essences. One way is

<sup>12</sup> Whether essential statements should be conditionalised on existence will be discussed below.

<sup>13</sup> To my knowledge, generic essences have been introduced in Correia 2006. Alethic essences are used in Correia 2013 as well as in Correia and Skiles 2019, where they are called “factual” rather than “alethic”.

<sup>14</sup> I borrow the “what it is for it to be the case that”-locution from Correia 2013.

<sup>15</sup> Assume that there is a property expressed by the predicate “is a non-self-instantiating property”. If there is, then this property either instantiates itself or it does not. If it does, then it does not. If it does not, then it does. Hence, assuming that the property exists results in a contradiction.

to speak of essences as collections of properties, the other one is to speak of essences with the use of an essentialist operator. I will use the operator-formulation. Accordingly, “It is essential to Socrates that he is a person if he exists” will be a canonical essentialist statement, whereas “personhood is an essential property of Socrates” won’t be. My reason for choosing the operator-approach is my acceptance of non-objectual essences. Without any object that is supposed to be the designated instantiator of the properties that form the essence under the property-approach, the property-approach invites the question whose properties the essence is formed of. For example, claiming that the essence of what it is for it to be the case that there is a city is a collection of properties, but not saying which object is supposed to instantiate these properties, is somewhat odd. Choosing the operator-approach avoids such questions.

Before I leave the topic of essence until chapter three, I will introduce a way to informally elucidate the concept of essence that functions as a guide to the way essences are formally modelled in my semantics. In this work I will frequently speak of essential demands (or essential requirements). The basic idea behind my talk of essential demands is that every essence demands that the world meets certain requirements, it rules out ways for the world to be. For example, the essence of { Socrates } rules out that the world is such that { Socrates } exists although Socrates fails to exist.

The reason that speaking of essential demands is congenial to my semantic treatment of essence is that every essence will be modelled with an accessibility-relation. The worlds accessible from a world  $w$  according to this accessibility-relation are those that meet the demands of the corresponding essence.

Thinking in terms of essential demands also clarifies which objectual essentialist claims should be conditionalised on existence. If one thinks that Socrates can be a person only if he exists and that Socrates does not essentially exist, one should take “It is essential to Socrates that he is a person *if he exists*,” rather than “It is essential to Socrates that he is a person”, to be true. After all, the essence of Socrates does not demand of the world that Socrates exists. Worlds at which Socrates fails to exist and (given the assumption that being a person is existence-entailing) hence fails to be a person should count as meeting the essential demand of Socrates. This, however, does not commit me to the thesis that all objectual essentialist claims should be conditionalised on existence. For example, one might well hold that it is essential to the empty set that it exists and the theist might wish to say the same thing about god. Furthermore, I allow that the essences of some objects have demands concerning those worlds at which they do not exist. For example, the essence of { Socrates } plausibly demands of worlds at which { Socrates } does not exist that Socrates does not exist

either.<sup>16</sup> Analogous remarks apply to alethic essences. For example, I allow for the essence of what it is for it to be the case that Bob is blue that it has demands at worlds at which Bob is not blue.

After having given an informal gloss of my take on essence, I will turn to grounding, the third metaphysical posit that plays a central role in this work.

## 1.4 Grounding

Grounding is a metaphysical posit that is tightly connected to the idea that there is a hierarchy among the truths. Not all truths are on par, some truths are more fundamental than others. Statements of grounding are typically assumed to convey explanations, at least in the standard cases. An explanation conveyed by a grounding-statement is taken to be of a special type of explanation that grants us insight into the priority-structure of the world. Grounding is often elucidated by means of example and by relying on locutions like “gives rise to”, “in virtue of” and “because”, as in the following exemplary statements:

- Bob the Ball is red because it is scarlet.
- Socrates’ existence gives rise to the existence of the singleton that has Socrates as its only member.
- My being in Hamburg or Berlin is grounded in my being in Hamburg.
- There is a ball in the room in virtue of Bob the ball’s being in the room.
- The mental is grounded in the physical.
- The whole exists in virtue of the existence of its proper parts.
- Mona Lisa is beautiful because the standard observer is disposed to judge her as beautiful.

It should be noted that these are just examples of grounding-claims, I do not commit to the thesis that all of them are true. Especially the last three examples amount to substantial philosophical theses. I mention them not because I take them to be true or even plan to defend them in this work, but because mentioning them indicates that grounding is not only advertised as

<sup>16</sup> For this reason, my account of essence is not *anti-anseimian* in the sense of Rosen 2006. This forecloses that Rosen’s non-standard conception of metaphysical modality qualifies as a genuine form of modality on my account. For his distinction to take off, it has to be assumed that objects cannot have demands on worlds at which they do not exist.