THE ESSENTIAL/ACCIDENTAL DISTINCTION IN CONTEMPORARY METAPHYSICS
- THE MODAL AND DEFINITIONAL CHARACTERIZATIONS -

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Submitted to
Central European University
Department of Philosophy

In partial fulfilment of the requirements for the degree of Doctor of Philosophy in Philosophy

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Budapest, Hungary
2009

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Abstract

The topic of the dissertation is contemporary metaphysical essentialism, more specifically, the characterization of the distinction between the essential and accidental properties of objects. Intuitively, the essential properties of an object are those that make it the object that it is; in other words, they are the conditions of its identity. The prevalent characterization is the modal one according to which the essential properties of an object are simply its necessary properties, and the accidental properties are its contingent properties. Essence is thus understood as a special case of the *de re* metaphysical necessity and the essential/accidental property distinction is usually further analysed in terms of possible worlds. The problem with this standard account is that it does not distinguish between the conditions of *x*'s identity and the consequences of its identity, thus counting as essential also such trivial properties as being self-identical, being such that red if red, and so on, that we clearly do not consider to be essential. According to Kit Fine, this problem cannot be solved simply by some technical refinement of the characterization, and is rather a sign of an inherent flaw of the modal approach to essence. Consequently, Fine argues for the rejection of the modal approach to essence and the essential/accidental property distinction, and proposes the definitional account instead: the essential properties of an object are those that can be assigned to the object solely based on its definition.

My main aim is to ascertain which of the two accounts – the modal or the definitional one – better characterizes the essential/accidental property distinction. I accept Fine's argument that the standard modal approach that tries to reduce essence to metaphysical necessity cannot succeed, but then I consider Edward Zalta's improved modal account, which builds the characterization of the essential/accidental property distinction on the assumption of fundamentally different natures of abstract and ordinary objects. Thus, it cannot be taken as

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a reductive analysis of the concept of essence, but rather as a clarification in a similar fashion as Fine's definitional account. The proposal does provide a satisfactory characterization of the distinction, and I establish that Fine's definitional proposal succeeds in this as well. Therefore, the decision between the two accounts ultimately depends on other metaphysical and theoretical considerations. As they stand, I prefer Fine's definitional account over Zalta's modal account, since the latter works only within his simplest quantified modal logic and in connection with the theory of abstract objects.

Both discussed proposals understand the essential/accidental distinction realistically, namely, as grounded in the objects themselves. However, there are philosophers who think that the distinction makes sense only if it is dependent on us, the ways we think or speak about objects. Conventionalists claim that the distinction is entirely up to us, whereas another option is to make the distinction only partially dependent by combining a realist interpretation of metaphysical modality with a contextual interpretation of essentialist claims. I consider both options in connection with the modal account and find them less acceptable than the realist approach.

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Acknowledgments

I would like to thank my supervisor Ferenc Huoranszki for his help in writing this dissertation, to Nenad Miščević, who first suggested to me to come and study at CEU and helped me in many ways over the years, to Danilo Šuster for his constant support and readiness to help with suggestions and literature, and especially to Timothy Williamson for his invaluable comments on certain parts of this dissertation, which helped me clarify my position and revealed new perspectives on the topic in general. Not least, I would like to thank CEU and the Foreign and Commonwealth Office for awarding me the Chevening scholarship, which gave me the opportunity to research at the Oxford University in the 2004/2005 academic year.

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INTRODUCTION

The topic of this dissertation is contemporary metaphysical essentialism and since this is a vast topic, I will focus on the characterization of the distinction between essential and accidental properties of objects. This distinction is the main ingredient of essentialism and plays a very important role in metaphysics. First, it helps to demarcate the subject matter of metaphysics. Metaphysicians study the nature of things, what they are; consequently, they are not interested in every property of the thing under consideration, but only in those that make it the thing that it is. The properties that in metaphysically significant sense form the nature of an object can be characterized as those properties that are essential to a thing. Second, the essential/accidental property distinction is also an important part of the subject matter of metaphysics. Obviously, if things have some of their properties in a special way, then this is of interest for metaphysicians. Moreover, metaphysicians often use the concept of essential property and its cognate essence in the formulation of specific metaphysical claims and in the definition of metaphysical concepts. For example, substance is sometimes defined as something whose essence does not preclude its existing on its own.[1]

I hope enough was said to ascertain that essentialism and the essential/accidental property distinction are worthy topics of metaphysics. Of course, the worthiness of the topic, does not automatically justify my investigation of it. One could argue that essentialism is indeed an important topic, but everything has already been said about it.

Indeed, the inquiry into essence and the essential/accidental property distinction has a long history and stretches back at least to Aristotle. His basic idea that objects have essences that fix their identity was widely accepted by scholastics and by modern philosophers with rationalist leanings, but viewed by a great deal of scepticism by those with empiricist leanings

[1] For the argumentation along these lines, see Fine 1994 and Yablo 1998.

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as well as by the founders of the contemporary analytic philosophy. Essentialism was so disreputable that Quine rejected quantified modal logic partly on the grounds that it requires the reintroduction of 'Aristotelian essentialism' and did not think he needed to explain what it is that makes essentialism so objectionable. In fact, the developments in modal logic in the 1950s and 1960s led to a renewed interest in essentialism and especially Kripke's argument that proper names and natural kind terms are rigid designators (Kripke 1971, 1980) contributed to the rehabilitation of essentialism. Kripke himself advocated origin essentialism according to which the origin of an object is essential to it as well as essentialism about natural kinds. According to him, water is essentially H_2O since molecular composition is essential to chemical natural kinds. At the same time, but with somewhat different argumentation Putnam advocated essentialism about natural kinds as well and claimed, for example, that the *species tiger* is essentially mammalian (1975). Fine defended the essentialist claim that it is essential to a set to be a set and to have members that it in fact has (1981) and Wiggins a sortal essentialism according to which a kind to which an individual belongs is essential to it – for example, Aristotle is essentially a human being (2001). Today, most of contemporary metaphysicians find essentialism intuitive and essentialist claims are often used in various arguments. Especially popular is the use of essentialist claims in denials of identity theses. For example, it is argued that although a certain statue is always composed of the same lump of clay and the clay always composes the statue, they are not identical. Indeed, they are spatiotemporally collocated, and accordingly, share most of their properties – having the same weight, shape, colour and so on. However, the statue is essentially human-shaped whereas the lump of clay only accidentally and would have survived reshaping into a vase. Therefore, despite the overwhelming similarity, the statue and the lump of clay differ in their essential properties and are two distinct objects.

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Obviously, specific essentialist claims do not make much sense unless they are accompanied by a certain understanding of the grounding essential/accidental property distinction. Traditionally, the prevalent understanding of the distinction was a definitional one according to which the essential properties of an object are those that are listed in the real definition of an object. After the empiricist criticism, especially that of Locke (1690), the idea of real definition on which Aristotelian essentialism is based has been abandoned. The revival of essentialism in contemporary analytic metaphysics was not a consequence of the rehabilitation of the real definition, but as mentioned, of a development in modal logic, which improved the understanding of modal notions. This, in turn, brought to the fore the modal understanding of the essential/accidental property distinction, which was traditionally less commonly championed as the definitional one.[2] Specifically, the modal essentialists locate the essential properties in *de re* necessity: the essential properties of an object are those properties that the object has necessarily. In 1970s and 1980s, many books and articles discussed modal essentialism and the related issues, but while slightly different variants of modal characterization of the essential/accidental property distinction have been put forward, almost nobody asked whether the modal strategy is appropriate.[3] However, the modal characterization of an essential property does have some surprising, counterintuitive consequences. For example, according to one variant of the characterization, existence comes out as an essential property of every object. Finally, some philosophers started to view these difficulties as a sign of the inadequacy of the modal understanding of essential property and essence. The most important role in this questioning of the orthodoxy was played by Kit Fine (1994) who actually suggested the return to the definitional account of essence.

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[2] For example, Mill characterizes the essence of a thing as 'that without which the thing could neither be, nor be conceived to be' (System of Logic, Bk. 1, ch vi, §2).
[3] Except for those philosophers, of course, who deny the intelligibility of the essential/accidental property distinction altogether.

Thus, in the new millennium, the investigation of essentialism is far from being over. The problems with modal characterizations of the essential/accidental property distinction that were once thought to be mere technicalities, are in the presence of the rival approach recognized as real problems that need to be properly addressed. When I started to work on this dissertation six years ago, the opposing positions were barely outlined. Criticism of the modal account was stated and the definitional account outlined. Since then the proponents of the modal account have responded to criticism and expressed their own qualms about the rival account, which was further developed and fortified as well. Debate is heated, which clearly shows I was right in thinking that the time is right to look again at the modal account of essentialism and consider its strength in view of these new developments. However, there is a downside to this popularity of the topic. Due to the constant flow of new published material, I often had to reconsider my own ideas and incorporate the new material into my dissertation. Often I was torn between being happy that certain established philosopher came to the same conclusion as me and being disappointed that now there is no point of me saying it.

The starting point of my research was Fine's criticism of the modal account. Is he correct in claiming that a modal account, no matter what the details are, cannot capture the concept of essence and correctly characterize the essential/accidental property distinction? Is his definitional account better suited for this task? The structure of the dissertation reflects my main interest, and centres on the modal account. Scepticism about essentialism, namely Quine's argument that the essential/accidental property distinction is not intelligible, is mentioned and discussed shortly. I do not dwell on rejecting his argument since it has been done already so many times that it would be unnecessary to add to it. Therefore, I rather assume that essentialism is a respectable view and only try to determine the best approach to the essential/accidental distinction. Essentialism as a thesis about the nature of objects, the different ways in which objects have properties, is best suited for the realistic interpretation

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and at the present, this is the prevalent understanding. I am also convinced that objects have essences and ground the essential/accidental property distinction independently of us, the ways in which we conceive or speak of them.

Thus, my main aim is to determine whether the modal and the definitional approach, respectively, can provide a characterization of the essential/accidental property distinction without any unintuitive consequences, and to ascertain which of these two accounts better characterizes the distinction. I agree with Fine that the notion of essence is so basic that it is highly unlikely that it can be explained in fundamentally different terms. Thus, the standard modal approach cannot succeed in capturing the essential/accidental property distinction. However, the improved modal approach could be understood as an attempt to clarify the essentialist notions and not to reduce them. In this case, I think that both approaches – the modal and the definitional – can be used in the characterization of the distinction and that the choice of one over the other turns on the author's metaphysical or theoretical preferences.

The structure of the dissertation is as follows. In Chapter 1, I introduce the notions and views that will be discussed as well as some related issues. In Chapter 2, I outline the standard modal account from 1970s and 1980s. There are two basic variants, the categorical, and the existence-conditioned characterization of the essential/accidental property distinction. Both have some strange consequences in terms of what is characterized as essential, and I look into the ways in which the authors from that period dealt with them. I continue with Kit Fine's criticism of the modal account, which he developed in 1990s and conclude with short presentation of Alvin Plantinga's understanding of the notions of essential property and of essence, which is primarily determined by their use in solving certain problems of modal metaphysics and not by their role in the metaphysics of the identity of things. In Chapter 3, I present the conventionalist interpretation of the essential/accidental property distinction

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according to which it is grounded in us and not in objects. My main objective is to show that conventionalist objections to the real essences and necessity do not seriously threaten the realistic accounts. In Chapter 4, I express my doubts about the contextualist approach to essentialism, which supplements the metaphysical characterization of the essential property with the linguistic thesis stating that 'essentially' is a context sensitive term, thus understanding the semantic content of '*x* is essentially *F*' as partly determined by the context of use. In Chapter 5, I outline Fine's characterization of essence in definitional terms and discuss its advantages and disadvantages in comparison with the modal characterization. I point out some aspects that should be further developed, but conclude that all in all the account could be made to work. In Chapter 6, I return to the modal account and ascertain that it survived Fine's criticism, as long as it is not taken to be a reductive analysis of the concept of essence. In particular, I analyse Edward Zalta's version and the ways it deals with Fine's counterexamples. The characterization of the essential/accidental property distinction is importantly determined by his theory of objects, according to which there is a fundamental difference between concrete and abstract objects, and the interpretation of quantified modal logic, according to which everything necessarily exists. While the characterization comes with an ontological baggage, it does deal successfully with the counterexamples, thus showing that Fine's criticism was not wholesale after all.

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CHAPTER 1 PRELIMINARIES

In this chapter, I explain what I mean by essentialism and introduce the competing characterizations of the essential/accidental property distinction that will be examined in this dissertation. I also introduce some notions that are closely associated with and can play a role in the understanding of the concepts of essential property and essence.

1.1 What is metaphysical essentialism?

Metaphysical essentialism is a view on the nature of objects according to which objects have essential properties. Usually, essentialists claim that objects have only some essential properties, while their other properties are accidental. Rarely, it is claimed that all objects' properties are essential; this view is called 'superessentialism' and it is often attributed to Leibniz.

Essentialism is primarily developed with ordinary objects, such as Socrates and this particular table, in mind.[4] More generally, essentialism is a view about any kind of object; where by an object, I mean a property-bearing entity, which is not itself borne by anything else and has determinate identity and countability.[5] Now, the idea is that some of the object's properties are fundamental to it, that they constitute its nature and are in virtue of which it is the object in question. In other words, these properties are conditions of an object's identity: the object needs to possess them to be the thing it is. For example, it is said that Aristotle possesses a property of being a human in such essential way. Aristotle could not have been this very object without being a human being. On the other hand, an object has also other properties, i.e., accidental properties, which are not constitutive of its nature, so their absence would not affect the object's identity. For example, while Aristotle is a philosopher, it would

[4] In traditional terms, they are called individual substances.
[5] Here I follow Lowe 2005b. This formulation allows me to count as objects concrete ordinary objects, abstract entities, such as numbers, as well as natural kinds.

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not have made any difference from the metaphysical point of view, if he had been a statesman instead. He would still be the object that he is, namely a human being.

The distinction between essential and accidental properties seems very plausible. In everyday life, we regularly employ the idea that certain features of the object are more fundamental to or characteristic of it than its other features. For example, if asked who Fico is, I would not tell you that Fico is a furry white-orange thing hiding behind the black thing, but rather that Fico is a cat hiding behind the cupboard. Generally, certain properties of an object are better suited for singling out the object as a distinct object of perception, thought, and linguistic reference. Our everyday practice shows that the kind-properties, such as being a cat, a human being, or a cupboard, are definitely such properties. Clearly, what I am describing here is a cognitive activity, namely individuation in epistemic sense. However, it seems quite reasonable to suppose that our individuative practices presuppose individuation of objects in the metaphysical sense. When we single out an object, we latch on those properties that make it *one* object, distinct from others, and the *very* object that it is, as opposed to any other thing.[6] Certainly, philosophers argue about the extent of the correspondence between epistemic and metaphysical individuation, whether the metaphysical individuation has to do with the question of synchronic, diachronic, or transworld identity, as well as whether an object can be individuated solely by its essence. However, the everyday practice does speak very persuasively in favour of at least kind-properties as having a major role in singling out an object as what makes the object the very object that it is. Indeed, the kind-property of an object and the other properties that it entails do not suffice for the unique individuation of the object, but they are necessary for it and constitute its essence.

Sortal essentialism, according to which an object could not have been of a different kind or sort than it in fact is, is in fact the most widely accepted essentialist thesis. For

[6] The formulation is taken from Lowe 2005a: 75.

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example, the claim that Fico is essentially a cat and could not have been a poached egg or a cupboard seems very plausible. Concerning other essentialist theses, there is much lesser consensus. This shows that although the essential/accidental distinction is plausible, it is not so easy to provide a satisfactory theoretical basis on which the particular essentialist claims can be grounded. The project can be greatly facilitated by clear formal characterization of the essential/accidental property distinction in the first place, which I will attempt to do in this dissertation.

1.2 Characterizations of the essential/accidental property distinction

The concepts of *essential property* and of *essence* are closely connected with *identity* of objects (*what is to be that very thing*), *necessity*, and *explanation*, and throughout the history of philosophy three corresponding characterizations of the distinction were entertained. Traditionally, the leading characterization was the definitional one, which originates in Aristotle's conception of *essence* and *definition*.[7] The idea is that there are two kinds of definitions: the nominal definition that defines a word, or tells us what it means, and the real definition that defines an object, or tells us 'what it is', by stating its essence.[8] According to this definitional characterization, *F* is an essential property of an object *x* if and only if to be *F* is part of 'what *x* is', as elucidated in the definition of *x*. The other properties of *x* are accidental. Today the main proponent of the definitional account is Kit Fine, whose proposal represents the topic of Chapter 5.

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[7] Aristotle connects essence with definition (*horismos*) in his logical works: 'a definition is a phrase which signifies the essence (the what-it-is-to-be)' (*Top.* 102a3) as well as in his metaphysical works: 'the things that have an essence are those things whose account (*logos*) is a definition' (*Met.* 1030a6), 'a definition is the account of the essence' (*Met.* 1031a12).

[8] Actually, 'what it is' and 'essence' mean the same. The word 'essence' is a philosophical term of art, derived from the Latin word *essentia*, which was coined in order to render Aristotle's curious phrase *to ti ên einai* (literally 'the what it was to be'). Sometimes Aristotle expresses the same idea with a shorter phrase *to ti esti* (literally 'the what it is').

The second characterization is the modal one, according to which a property *F* is an essential property of an object *x* if and only if *F* is a necessary property of *x*; or, equivalently, if and only if *x* could not exist and lack *F*. On the other hand, a property *F* is an accidental property of an object *x* if and only if *F* is a contingent property of *x*; or, equivalently, if and only if *x* has but could lack *F*. The same as the definitional, the modal approach can also be traced back to Aristotle, who connects essence with definition, but defines 'accident' as 'something which … can possibly belong or not belong to one and the same thing' (*Topics* 102b5-7). In the period of the prevalence of the definitional account, Mill, for example, understands essence in modal terms. 'All metaphysicians prior to Locke', he says, perceived the essence of a thing as 'that without which the thing could neither be, nor be conceived to be' (*System of Logic*, Bk. 1, ch. vi, §2: 147). The modal characterization becomes the prevalent approach in the contemporary analytic philosophy. This was a direct consequence of the developments in quantified modal logic that took place from approximately the 1950s on. Accordingly, nowadays the distinction is usually further explained in terms of possible worlds semantics: *F* is an essential property of an object *x* if and only if *x* has *F* in every possible world (in which it exists) and *F* is an accidental property of *x* if only if *x* has *F* in the actual world, but there is a possible world in which *x* lacks *F*.

The third characterization, which was also inspired by Aristotle's theory,[9] is the explanatory account according to which essential properties are those properties that underlie and explain (many) other properties of an object *x* and its behaviour. Such characterization is especially susceptible to subjective or conventionalist interpretation since it can be said that what counts as explanatorily primary depends on the interests and abilities of the explainers.

[9] According to Aristotle, essences or the defining features of a natural kind are centrally involved in the explanation of the existence and behaviour of its members: '… it is clear that what it is and why it is are the same. What is an eclipse? Privation of light from the moon by the screening of the earth. Why is there an eclipse? or Why is the moon eclipsed? Because the light leaves it when the earth screens it' (APo. 90a15-18). Furthermore, Aristotle supplements this metaphysical claim of the identity between essences and causally basic features with an epistemic claim that knowledge of essences is the same as knowledge of causes of things: 'to know what something is is the same as to know why it is' (APo. 90a31).

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However, there were attempts in the contemporary metaphysics to give the notion of explanation a more 'ontic' sense according to which it signifies a certain objective relation between things, thus grounding the essential/accidental property distinction in the objects themselves (see Copi 1954, Teller 1975, and Gorman 2005).

The proposed classification should not be understood as introducing sharp divisions. If some account is classified as definitional that does not necessarily mean that essential properties are not also considered necessary, or, alternatively, that the proponent of the modal account denies that essential properties have an explanatory role. Aristotle's account of essence is a good example of the interconnectedness of the three elements. The classification is rather based on what is deemed the main characteristic of the concept of *essential property* and thus used in the characterization of the distinction: being 'constitutive' of the object's identity, its necessity, or its explanatory value. The other two characteristics can also be an explicit, or at least an implicit, part of the account. For example, take the definitional account. Given the fact that the essential property *F* is the condition of *x*'s identity, it is clear that *x* could not exist without it. The definitional account therefore at least implicitly assigns necessity to essential properties. However, 'could' in the '*x* could not exist without *F*' can be understood in two different ways and, consequently, corresponds to two different kinds of possibility – 'temporal' or 'counterfactual'. A temporal possibility is the possibility of an object changing in some way over time, while a counterfactual possibility is the possibility of an object being different in some way from the way it actually is. Correspondingly, an *essential property* can be understood in temporal terms as a property, which the object *x* has always possessed and which it cannot fail to posses without thereby ceasing to exist. Alternatively, it can be understood in counterfactual terms as a property, which the object *x*

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always possesses and which it could not have failed to posses.[10] From the definitions, it transpires that any counterfactually essential property is a temporally essential property as well. However, the converse does not hold: from the fact that the object *x* is actually *F* and cannot cease to be *F*, unless it ceases to exist, it does not automatically follow that *x* could not have passed its entire existence as something other than *F*. For example, if *x* first came into existence at a certain time *t*, then it always possesses and it cannot fail to possess the corresponding historical property, but it could have first come into existence at a different time. The proponent of a definitional account may specify what kind of modal status she/he ascribes to essential properties or may be silent about it. Nowadays, it is almost taken for granted that the relevant modality concerning essence and the essential/accidental distinction is the counterfactual one.

1.3 Metaphysical necessity and possibility

The notion of modality relevant here is that of *metaphysical modality*. There are various notions of modality and not much agreement on the nature of any particular notion and their relations. Therefore, I will offer only few basic, and hopefully uncontroversial, characteristics of metaphysical modality and rather rely on few typical examples and contrast them with examples of physical modality. The metaphysical modality is usually described as the absolute modality or the modality *tout court*. Something is metaphysically necessary if it could not have been otherwise, no matter what. In terms of possible worlds semantics, metaphysical necessities hold in all possible worlds without qualification or exception. It is also characterized as an objective, non-epistemic kind of modality, which, in other words, means that it is about objective reality and not about the status of our knowledge, for instance, not necessary/possible *for all I know*.

[10] The distinction between temporal and counterfactual modality is common in the contemporary literature on essentialism. For example, see Ch 5 and 6 in Lowe 2002, or Mackie 2006. Here I follow closely Lowe's formulation (Lowe 2002: 96).

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Another objective, non-epistemic kind of modality, is *physical modality*. This is usually considered a relative or restricted kind of modality. Something that could not have been otherwise given the laws of physics is physically necessary and something that could have been otherwise given the laws of physics is physically possible. In terms of possible worlds semantics, when evaluating physically modal claims, we only consider those possible worlds in which our laws of physics are true. Thus, something is physically possible if and only if it is metaphysically (logically) compossible with the actual laws of physics.[11] For example, given the limits on travel faster than speed of light, it is physically possible to get from Budapest to New York in one hour, but physically impossible to get from Budapest to Alpha Centauri in one hour. Many believe that it is metaphysically possible that the laws of nature be different,[12] and in this case, it is thus metaphysically possible for an object to move faster than the speed of light.

Finally, let me present some typical examples of metaphysical necessity, or, as it is also called, 'broadly logical necessity'.[13] One subclass consists of *logical necessities in the narrow sense* that are simply the truths of logic, such as 'if p, then p' and 'x = x'. Yet another subclass consists of conceptual necessities, such as 'Red is a colour' and 'If a thing is red, then it is coloured'. Another one consists of *mathematical necessities* that are simply the truths of mathematics, such as '2 + 3 = 5'. The most interesting subclass of metaphysically necessary claims are typical philosophical claims, such as 'The mind is distinct from the body', 'Personal identity consists in continuity of consciousness', 'Aristotle is a human being', 'Hesperus is Phosphorus', and 'Water is H_2O'; assuming, of course, that they are true at all. These are modalized versions of essentialist claims concerning individual objects and

[11] Again, not everybody agrees that natural necessity is a relative form of metaphysical necessity. One example is Fine 2002, in which it is argued that physical, metaphysical, and normative necessities are three main forms of necessity and that none of them is reducible to any other form of necessity.

[12] Some philosophers claim that laws of nature are metaphysically necessary and then subsume physical necessity under metaphysical necessity. See, for example, Shoemaker 1980 and 1998, Bird 2004.

[13] Plantinga 1974. But see Hale 2003, where broadly logical necessities comprise only narrowly logical necessities and analytic or conceptual necessities, while metaphysical necessities are a separate class of 'a posteriori necessities of the Kripke-Putnam variety' (p. 4).

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kinds or their modal consequences. The last two examples about the identity of Hesperus with Phosphorous and water with H_2O are typical Kripke and Putnam's instances of *a posteriori* necessities, which in fact led to the contemporary notion of metaphysical necessity.

Two related problems are usually expressed concerning metaphysical necessity. First is the metaphysical one, namely, how can the world in which something is or is not the case ground the distinction between what is necessarily the case and what is contingently the case. Second is the epistemological one, namely, how can we come to know necessity and possibility when empirical experience tells us only what is the case and not what must be or could be the case. Most philosophers think that the two problems can be successfully addressed in some way or another, but there are some, who believe that it cannot be done. Few of these disbelievers dispense with modality altogether. There is no such thing as modality and hence modal notions can be eliminated from our vocabulary without a serious loss. Famously, Quine argued that modal notions are unclear and cannot be explained without circularity and ineptitude (Quine 1951). However, modal notions are involved in very many other, fundamental ways of thinking. Among others, in planning and decision-making, we need to consider various possible alternatives before deciding for one. Modality is involved in the construction of experiments that would verify a scientific hypothesis and in consideration of the assumptions and consequences of various scientific theories, such as physics, mathematics, economics, and sociology. Given that modality is ubiquitous in our everyday thought and talk as well as in our scientific and philosophical theorizing, an eliminativist faces the tough task of showing that modal notions can be eschewed all together. Another, to a certain degree less extreme, position accepts modal notions, but claims that modal judgments have no distinctive subject matter and that they only express our attitudes to the embedded (non-modal) propositions (Blackburn 1986). In this dissertation, I will consider only the most popular view that is usually called conventionalism. Conventionalism accepts

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modal notions and assertoric content of modal judgments, but does not locate the source of their truth in the real world, but in us, that is, in our ways of talking and thinking about the world and the things in it. Metaphysical necessity is thus reduced to analytic or conceptual necessity, which is further grounded in our linguistic conventions or chosen conceptual scheme. Thus, the only necessities are those that derive from the connections among words or concepts. Given that on this view metaphysical necessity is considered mind-dependent, the acquiring of modal knowledge is more easily explained since it is not about a completely independent reality, but about our linguistic conventions or conceptual scheme.

Conventionalists oppose to the metaphysical necessity as the objective feature of reality and explain it as our projection onto the physical world, which is in itself entirely devoid of modality. I believe that the picture they present does not correspond to how the world really is and that the realist interpretation according to which metaphysical modality is a proper feature of the world is much more plausible. Moreover, I do not consider the metaphysical problem that conventionalists cite as the reason for the rejection of the objective nature of metaphysical modality to be a problem at all, if one does not embrace a very strict empiricist view. More work needs to be done concerning modal epistemology, but there is no reason to think that modal knowledge is impossible. More about this in Chapter 3, in which I discuss conventionalism as it applies to the modal account of essences and the essential/accidental property distinction.

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1.4 Quine's scepticism about de re modalizing

According to modal understanding, essentialist claims simply state what is necessary concerning particular objects. Mediaeval logicians called such sentences *de re*, as opposed to *de dicto* modal sentences. Informally, distinction between *de re*/*de dicto* modality can be explained as follows. The modal expressions ‘possibly’ and ‘necessarily’ are used *de dicto* in

case they modify an entire non-modal sentence or proposition (*dictum*) and are used *de re* in case they attribute a modal characteristic to a particular item(s) or feature(s) (Lat. *res* = a thing) mentioned in the non-modal sentence. Nowadays they are customarily formalized in the first-order predicate calculus with added sentential modal operator, '$\Box$'; and the distinguishing mark of *de re* cases is that they involve the quantification into modal formulae. Accordingly to the syntactic criterion, the *de dicto* formulae are those in which no variable occurs free within the scope of a modal operator '$\Box$' (e.g., $\Box\exists x\phi x$) and the rest are *de re* (e.g., $\exists x\Box\phi x$).

Quine, who was no friend of modality in general, was especially opposed to *de re* modality and believed that quantifying into modal contexts is incoherent (Quine 1953/61). His criticism was very harsh; however, at the time, the development of the propositional modal logic and even more so of the quantified modal logic was still in its early stages. In 1940s and 1950s, there were various attempts at formalizing quantified modal logic, but without a thoroughgoing semantics, their interpretation was difficult.[14] One important improvement, since then, was a development of possible worlds semantics for propositional and first-order predicate modal logic.[15] Consequently, modal logicians gained better understanding of various modal systems and were able to defend *de re* modalizing better. Therefore, Quine's objections lost much of their force, he himself shifting from the claim that modal logic is a child of the use/mention confusion and that especially quantified modal logic does not make sense, to a milder claim that quantified modal logic pushes us towards intensions or that it has unwanted essentialist commitments. Nevertheless, Quine's initial claim that quantifying into modal contexts is incoherent somehow lingers on and modal essentialists are repeatedly asked to defend their basic formal tool from the incoherence

[14] Barcan Marcus (1990) gives a good presentation of these beginnings as well as modifications in Quine's criticism that were brought about by the further improvements of quantified modal logic in which she played an important role. See Marcus 1946 and for more philosophical papers Marcus 1993.
[15] See especially Kripke 1963.

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charge. Therefore, let me mention some basic points from the debate on Quine's scepticism about *de re* modality.

Mostly, it is considered that the paper 'Reference and Modality' (1953/61) represents Quine's objections best.[16] Quine seems to have two arguments against the intelligibility of *de re* modality – the logical and the metaphysical one.[17] The logical argument is against the intelligibility of quantifying into modal contexts. Quine observes that the occurrence of singular terms within modal contexts may not be 'open to substitution'. For example, a sentence '8 is necessarily greater than 7'[18] is true, while the sentence 'the number of planets is necessarily greater than 7' is false, yet the latter was obtained from the first by substituting the coreferential term 'the number of planets' for the original term '8' (Quine 1953/61: 143-4). From this follows, argues Quine, that such occurrences of singular terms are not purely referential, thus making quantification into modal context unintelligible.

The connection between naming and quantification is supposed to be established by existential generalization according to which 'whatever is true of the object named by a given singular term is true of something' (Quine 1953/61: 145). Thus, from the sentence '8 is necessarily greater than 7' we may infer that 'for some *x*, *x* is necessarily greater than 7'. However, for the latter sentence to make sense, we would need to understand what it is for the necessity condition '*x* is necessarily greater than 7' to be satisfied by an object, independently of how it is described. Which object is it? Is it 8? But this is the number of planets and the sentence 'the number of planets is necessarily greater than 7' is false, thus, the quantified sentence is also false when we substitute a description for the variable of quantification. Thus,

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[16] But see also Quine, 1953 and 1960 (pp. 195-200). For later developments, see Quine 1976 and 1977.
[17] The formulation of both arguments is from Fine 1989.
[18] When deciding whether Pluto should count as a planet or not, they forgot to consult analytical philosophers, who would be vigorously against Pluto's exclusion on the grounds that it destroys one of the most cited examples in literature. I adjusted Quine's example so that it reflects the change in the number of planets: 'The number of planets is 8'.

concludes Quine, there is no meaningful notion of objectual satisfaction for existential quantifications containing modal operators.

The failure of substitutivity in the above example about 8 and the number of planets can be most easily denied by distinguishing between *de re* and *de dicto* reading. Under *de re* reading the sentence 'the number of planets is necessarily greater than 7' claims *of* the number that actually numbers the planets, i.e. 8, that it is necessarily greater than 7, and this is true. Under *de dicto* reading, the sentence states that a certain *descriptive* claim is necessary: it is necessary that the number picked out by description 'the number of planets', whatever that might turn out be, is greater than 7, and this is false. Thus, in the case of *de re* reading, there is no substitution failure and the truth-value is preserved under substitution of '8' with 'the number of planets'. However, in his argument Quine reads the sentence *de dicto* and would dispute the intelligibility of a *de re* reading.

Nevertheless, even if one complies with Quine's demand that descriptions are to be interpreted *de dicto*, the logical argument can be rejected. It is based on the assumption that there is no significant distinction between the use of names and descriptions, but if one denies this, it collapses. Thus, if the use of the name '8' is purely referential, namely, solely to pick out the object, but the use of the description 'the number of planets' is not, then we cannot freely substitute one with the other. However, if we restrict substitution only to names, then there is no substitution failure and contexts are referentially transparent. Moreover, it seems natural to assume that our understanding of the quantified sentence derives from the referential use of '8' in '8 is necessarily greater than 7', thus securing a referential understanding of the quantifier, despite the fact that referentiality may fail upon substituting a description 'the number of planets' for the variable of quantification. After all, for the

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intelligibility of a quantified sentence it suffices that at least one of its instances makes sense.[19]

As early as 1947, Arthur Smullyan has pointed out in his review of Quine's 'The Problem of Interpreting Modal Logic' (1947) that scepticism about quantifying into modal contexts is unfounded if we recognise a distinction between proper names and descriptions and base the understanding of existential generalisation on those instances in which variable is replaced by a proper name (Smullyan 1947: 140).[20] Quine himself acknowledges that Smullyan is right that there is no failure of substitutivity in modal contexts if only proper names are used (Quine 1953/61: 154). He is especially clear on this point in his later writings. Thus, for example, in 'Intensions Revisited' (1977), he specifically says that the question of substitutivity does not arise in connection with variables since they figure only *de re* or in referential position (p. 117). Similarly, there is no problem with existential generalisation in modal contexts, when a variable is replaced by a term, called a rigid designator, that 'designates the object in all possible worlds in which it exists'. As Quine admits, such 'a term enjoys *de re* privileges even in a *de dicto* setting (p. 118).[21]

However, Quine does not leave it at that, but develops a metaphysical argument against quantified modal logic. Even if quantifying into modal contexts makes sense logically, he argues that this strategy commits us to accepting essentialism, which is according to him an indefensible theory. The objective of the metaphysical argument is to show that the idea according to which an object necessarily fulfils a condition is unintelligible. More specifically, if there is an objectual notion of satisfaction for a condition such as '*x* is necessarily greater than 7', then it should make sense to say of an object that it necessarily

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[19] For more on logical argument, see Fine 1989.
[20] See also Smullyan 1948, where he shows that there is no failure of substitutivity even in the case of definite descriptions if one employs Russell's method of contextual definition of descriptive phrases.
[21] Today is customary to count simple statements of the from □*Fa*, where *a* stands for a genuine proper name, as *de re*. The relevant criterion is semantic: the truth-conditions for □*Fa* require that *a*, as a rigid designator, picks out the same individual in each possible world (if any).

fulfils the corresponding non-modal condition '*x* is greater than 7'. However, one cannot make sense of an object's necessarily being a certain way independently of how it is described. For example, when described as the number 9 - 1, the number 8 will necessarily be greater than 7; and when described as the number of planets, the number will not necessarily be greater than 7. But no sense can be attached to the claim that the number itself is necessarily greater than 7, independently of how it is described (Fine 1989). Or, as Quine puts it, '[b]eing necessarily or possibly thus and so is in general not a trait of the object concerned, but depends on the manner of referring to the object' (Quine 1953/61: 148).

First, to understand why Quine would think this, one must keep in mind that the subject of the metaphysical argument is not the contemporary notion of metaphysical necessity, but of *linguistic* or *analytic necessity*, which was at the time almost universally considered the only sensible notion of necessity.[22] According to the linguistic theory of necessity, the sentence 'It is necessary that ϕ' is true if and only if sentence ϕ is analytic. A sentence is analytic if and only if it is true in virtue of its meaning. However, if the relevant necessity is the linguistic one, then it is obviously a function of meaning and not merely reference. Thus, the necessity can only attach to the object relative to a certain description, and not absolutely.

However, the object can be uniquely determined by many different descriptions, some of which have '*x* is greater than 7' as a necessary consequence and others not. Consequently, one could insist that the number itself is necessarily greater than 7 only by adopting an invidious attitude towards certain ways of uniquely specifying *x* (e.g., 'the number of planets') and favouring other ways (e.g., 9 – 1) 'as somehow better revealing the "essence" of the object' (Quine 1953/61: 155). In other words, the proponent of quantified modal logic must accept *Aristotelian essentialism*, namely, that '[a]n object, of itself and by whatever

[22] The identification of necessity with analyticity was accepted by logical positivists and ordinary language philosophers alike. Especially, it was accepted by C. I. Lewis, Church, and Carnap, whose theories Quine primarily criticized.

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name or none, must be seen as having some of its traits necessarily and others contingently, despite the fact that the latter traits follow just as analytically from some ways of specifying the object as the former traits do from other ways of specifying it' (p. 155). According to Quine, such view is unreasonable and should be rejected; and with it quantified modal logic that implies it (p. 156).

Our interest here is metaphysical necessity, so I will put aside the question whether Quine is correct in his assessment of analytical necessity.[23] Certainly, concerning metaphysical necessity, there is no reason to accept Quine's assumption that the only way necessity can be attached to an object is *via* descriptions or specifications. After all, the metaphysical necessity in question is not understood as residing in the way in which we say things, but in the things themselves. Moreover, if one accepts that proper names are rigid designators and the possible worlds semantics, this can also be mirrored in the language. In the essentialist sentence 'Aristotle is necessarily a human being', a name of Aristotle – 'Aristotle' – is a rigid designator that picks out Aristotle in all possible circumstances, independently of any appeal to descriptions, and the sentence is true only if in all possible circumstances Aristotle is a human being.

In fact, Quine turns to metaphysical necessity in his later writings and here he also believes that it makes sense only relative to the way in which the object is described since there is nothing in the object itself to sustain the distinction between its essential and accidental properties. In 'Intensions Revisited' (1977), for example, he writes that it is characteristic of a rigid designator that 'it picks out its object by essential traits' (p. 118), and which these traits are depends on a context: 'Relative to a particular inquiry, some predicates may play a more basic role than others, or may apply more fixedly; and these may be treated

[23] For the argument that *de re* application of logical and analytic modalities is intelligible without embracing 'Aristotelian essentialism', see Fine 1989.

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as essential' (p. 121). In other words, *de re* modal idioms make sense only as being 'relativized to the context or situation at hand' (p. 122).

Quine does not really say much why the notion of essence is devoid of any content and sense if not considered in a context. But clearly, the main reason is his empiricist view according to which necessity cannot be an objective feature of the world, but, at most, analytical or conceptual necessity. Most certainly, an object in itself cannot sustain a distinction between its essential and accidental properties. Therefore, the corresponding *de re* necessities about a particular object have to be reduced to general necessities, which are more open to non-objective interpretation. The reduction of singular necessities to general necessities can be achieved if we associate descriptions with the objects.[24] Thus, in the fundamental formulation of modal claims no reference has to be made to any individuals.

Within a framework of possible worlds, Quine's puzzlement about essentialism appears as puzzlement about the existence of an individual in different possible worlds. According to Quine, for this idea to make sense at all, an object must be identified from one possible world to another and this can be done, in his opinion, only by its essence. However, as we saw, Quine believes that the notion of essence makes sense only relative to a context and that what properties are counted as essential depends on what our interests are on the particular occasion (Quine 1977: 118). Consequently, it cannot suffice for a unique and absolute identification of an object across possible worlds. Or, as he puts it in 'Worlds Away' (1976), 'all manners of paths of continuous gradation from one possible world to another are free for the thinking up' (p. 861). We simply decide for one, out of many possible conditions, as that which uniquely picks the object up in all possible worlds (p. 862).

The empiricist misgivings about metaphysical modality as well as essential and accidental properties and the realist response are discussed in Chapter 3. In this section, I only

[24] For more on relation between *de re* modal scepticism and the view that all necessity is ultimately general, see Fine 2005a.

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tried to show that scepticism about *de re* modalizing does not present an additional problem for essentialists to worry about, since it ultimately turns out to be grounded in Quine's rejection of essentialism and the possibility of the essential/accidental property distinction residing in the objects themselves.

1.5 Realist and conventionalist interpretation of the source of the essentialist truths

All three characterizations of essential properties – the modal, the definitional, and the explanatory – can be matched with two different interpretations of the grounds of the essentialist truths. In general, realists ground essentialist truths in the objects themselves, while conventionalists deny their objective character and claim that they are grounded in our ways of speaking or thinking about objects, in human conventions and practice. The conventionalist interpretation of the modal characterization within the possible worlds framework interprets the transworld identity conventionally. Namely, objects in distinct worlds are identified as the same object according to our interests.[25] According to the conventionalist interpretation of the definitional characterization, definitions of objects are analytical or conceptual truths that are determined by our ways of talking or thinking about objects. In the case of the explanatory characterization, the conventionalist interpretation is actually more intuitive than the realist one since we tend to understand explanation in epistemic terms. But then, what counts as explanatorily primary depends on the interests and abilities of the explainers.

Conventionalists often supplement their theory by a linguistic thesis stating that the term 'essentially' is a context sensitive term. Accordingly, which properties are appropriately described as essential can vary from one context of use to another. However, someone who is a realist about metaphysical modality could still adopt a contextualist approach to essentialist

[25] See, for example, van Fraassen (1978).

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claims, thus making the essential/accidental property distinction partly determined by the modal fact and partly by the mind-dependent linguistic or conceptual facts. Actually, this is a position defended by David Lewis. Therefore, contextualism deserves to be considered as a view on its own.

1.6 Some examples of essentialist claims

Since the rehabilitation of essentialism in early 1970s, a variety of essentialist claims has been defended by modal essentialists. For illustration, let me enumerate few.

The most intuitive is *sortal essentialism*, according to which a kind to which an individual belongs is essential to it (e.g. Wiggins 2001). For example, Fico is necessarily a cat and could not have been a cupboard; Aristotle is necessarily a human being and could not have been the number 15. Recently, Penelope Mackie tentatively endorsed *minimal essentialism* that denies even the essentiality of the object's kind (Mackie 2006: Ch. 9). She analyzes two theories of sortal essentialism (Brody 1980 and Wiggins 2001) and argues that none succeeds to explain and justify our admittedly plausible intuition that objects could not have belonged to a different kind from the one to which they actually belong, especially if it would be radically different from the actual one. Consequently, she defends the view that there are almost no qualitative constraints on the ways in which an object could have been different from the way it actually is. The only essentially properties of an object are its trivial essential properties, such as a property of being self-identical or being red if red.[26] The view from the other extreme is *superessentialism* according to which all properties of an object are

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[26] According to the above characterization of essentialism, minimal essentialism counts as a form of essentialism – objects have some essential properties. However, it is in opposition with the spirit of the essentialist view and the notion of essential property. Essential properties of the object are conditions of its identity: the object needs to possess them to be the object that it is. Yet, according to minimal essentialism, the only essential properties of an object are logical properties that every object possesses as a matter of logic. Surely, such properties cannot suffice for an object to be the object that it is. Unless, of course, we accept that all objects have the same meagre nature. However, in this case, essentialism stops serving the purpose for which it was developed by metaphysicians in their endeavour to explain what things are.

essential to it. A popular view is *origin essentialism* according to which the origin of an object is essential to it (Kripke 1980). For example, Aristotle essentially originates from a sperm and egg that he actually originates from and a particular table is essentially made from the material that is actually made of. Similarly, according to Fine (1981), it is essential to set to be a set and to have the members that it actually has.

Unsurprisingly, many essentialist theorists do not count 'minimal essentialism' or/and 'superessentialism' as a genuine form of essentialism and thus amend the above characterization of essentialism so to exclude them.[27] I agree that essentialism makes most sense as the view about objects possessing non-trivial essential properties, but I will continue to count the two extreme views as forms of essentialism as well. After all, they are still views, albeit extreme, about the nature of objects according to which objects have essential properties. Thus, I believe that it is better to keep the characterization of essentialism simple and to reject the extreme views on the metaphysical grounds, without getting into a discussion whether they should be formally counted as essentialist or anti-essentialist in nature.

These essentialist claims are about ordinary individuals, however, other essentialist claims that are much discussed in the literature are about natural kinds. For example, Kripke claims that gold is essentially an element with atomic number 79 and light is essentially a stream of photons (1980). Similarly, Putnam claims that water is essentially composed of H_2O (1975). This is so because microstructure is essential to chemical and physical kinds.

These essentialist claims are the characteristic examples of the *a posteriori* necessary truths and were really the ones that contributed most to the rehabilitation of essentialism in contemporary metaphysics. However, essentialism about natural kinds has to answer some specific questions that do not come up in essentialism about ordinary objects. I will only mention some in the next section since discussing them fully would require too much space.

[27] See, for example, Yablo 1998, who characterizes both 'superessentialism' and 'minimal essentialism' as forms of anti-essentialism.

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In this dissertation, I focus on the issues concerning metaphysical essentialism, where the typical subjects of essentialist claims are ordinary individual objects.

1.7 Essentialism about natural kinds

Scientific disciplines do not theorize about particulars as such but rather about natural kinds in which they group relevantly similar particulars. These kinds are characterized as natural because it is believed that the scientific classifications correspond to the real kinds in nature. In other words, they carve the world at its joints. The first question that comes to mind is whether natural kinds of sciences really reflect natural divisions in nature or are maybe just a conventional product of the way we think about the world, mirroring our specific interests. What are the criteria of classification? Another question is whether natural kinds have essences to which essentialists answer affirmatively. The essence of a natural kind is a property or set of properties whose possession is a necessary and sufficient condition for a particular object to be a member of a kind. Essentialists understand natural kinds as immutable or static, so a special concern is whether this can be reconciled by the examples from natural sciences, where kinds are understood as mutable and dynamic. Especially pertinent question for the understanding of essentialist claims about natural kinds concerns their ontological status. Are they basic ontological entities or are they derived or reducible to other entities?[28]

One can consider natural kinds as entities in their own. In this case, particular essentialist claims ascribe essential properties to a natural kind, and essentialism about natural kinds is just a special case of essentialism about individuals.[29] This understanding of essentialism about natural kinds seems well suited to Kripke's discussion on the natural kind

[28] In this short summary, I follow Bird & Tobin 2008.
[29] In this case, of course, the concept 'individual' is more broadly construed as to include *particular* objects and *universal* natural kinds.

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essentialism, where kinds are designated by rigidly designating singular terms (1971 and 1980). Then, the essentialist claims are stated as follows:

(1) Water and H_2O are necessarily identical.

(2) Gold has essentially the atomic number 79.

(3) The kind *tiger* is essentially mammalian.

It is essential to the kind water to be such that all samples of it are composed of H_2O. It is essential to the kind gold to be such that all samples of it have the atomic number 79. It is essential to the kind/species tiger to be such that all of its instances are also instances of the kind mammal.

However, one can consider natural kinds as reducible to universals or cluster of properties and not as a basic ontological category. In this case, particular essentialist claims state a necessary but *a posteriori* connection between (two) properties and not, at least not on the face of it, ascribe an essential property to anything. Essentialism about natural kinds interpreted as a thesis stating necessary but *a posteriori* connection between properties or predicates is more amenable to Putnam's writings (1975), where he claims that there is a necessary but *a posteriori* coextensiveness of *being a sample of water* and *being composed of H_2O molecules*. This thesis gets to be stated in the following way:

(4) □ $\forall x$ (x is a sample of water $\leftrightarrow$ x is composed of H_2O molecules)

(5) □ $\forall x$ (x is a piece of gold $\rightarrow$ x is composed of stuff with atomic number 79)

(6) □ $\forall x$ (x is a tiger $\rightarrow$ x is a mammal).

Necessarily, for every instance, it is water if and only if it is composed of H_2O molecules. Necessarily, for every instance, if it is a piece of gold, then it is composed of stuff with atomic number 79. Necessarily, for every instance, if it is a tiger, then it is a mammal.[30]

[30] For more on the difference between the two formulations, see Mackie 2006: 12-14 and 169-172.

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Although one could claim that the alternative statements, such as (3) and (6), are just two different ways of attributing essential properties to kinds, some philosophers have argued that the statements (4), (5), and (6) do no such thing, but only 'specify properties essential *for* kind membership' (e.g., Mackie 2006: 170). Namely, claim (6) states that there is a necessary *a posteriori* connection between the property of being a tiger and the property of being a mammal, but nothing is said about any kind or a particular object belonging to a kind being essentially a mammal.[31] Thus, one who accepts the second formulation of essentialist claims is not ontologically committed to kinds as well as s/he does not need to endorse *de re* modality since statements like (4) – (6) are examples of merely *de dicto* necessity.

Let me conclude with few words regarding the relation between sortal and natural kind essentialism. First, sorts or kinds to which objects belong are not limited to natural kinds, thus also artificial objects fall under kinds. Second, sortal essentialism asserts that a particular object essentially belongs to a certain kind, while this does not automatically follow from natural kind essentialism, although it is probably assumed by many. Let us first consider the variant on which essential properties are ascribed to natural kinds. Kripkean statement 'Water and H_2O are necessarily identical' says that it is essential to the kind water to be such that all samples of it are composed of H_2O. However, it says nothing about a particular sample of water being essentially composed of H_2O. An extra assumption is needed which specifically states that object's kind is essential to it. If this assumption is accepted, then essentialism about kinds can be understood as ascribing essential properties directly to the objects that belong to particular kinds, but not otherwise. On the variant of essentialism about natural kinds on which necessary *a posteriori* connections between properties are asserted, it is even clearer that this does not entail sortal essentialism. Putnamian statement '□ $\forall x$ (x is a sample of water $\leftrightarrow$ x is composed of H_2O molecules)' states that there is a necessary connection

[31] While statements (5) and (6) state necessarily *necessary* conditions for kind membership, namely, kind gold and tiger, respectively; (4) is stronger and states necessarily necessary and *sufficient* conditions for membership in kind water (Mackie 2006: 171-2).

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between the property of being water and property of being composed of H_2O molecules. Thus, necessarily, anything that has one property has also the other. However, nothing is said that precludes a possibility in which this something, actually possessing both properties, lacks both of them. In fact, the same thing can be remarked in the case of a necessary *a priori* connection between properties (Mackie 2006 and Robertson 2008). It is a necessary *a priori* truth that all bachelors are unmarried, but it does not follow that Leo, who is in fact a bachelor, could not be married.

1.8 General and Individual Essences

For simplicity, I will assume that an essence is a collection of essential properties, although essence can be also understood as a core of an object.

The general essence (E_g) of an object x is that in virtue of what x is *what* it is, or, it is the necessary prerequisite of x's identity. However, the essence E_g does not uniquely determine x, since other objects also have such general essences. For example, Socrates is essentially a human being, but Plato is essentially a human being as well. Thus, Socrates's essence distinguishes him from other kinds of objects, such as cats and numbers, but it does not distinguish him from other human beings. Most plausibly, general essences consist of kind-properties and the properties that follow from the kind-property. For example, if x is a set, then it has its membership essentially. Alternatively, if x is a human being, then x is essentially rational. If one countenances essential differences within a kind, then general essences consist of such properties as well. For example, Aristotle's essence includes the property of originating from the actual gametes.

The individual essence (E_i) of an object x is its uniquely identifying profile that necessarily belongs only to x and distinguishes it from any other object. On modal

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characterization, an individual essence of *x* ($E_i x$) can be defined as a collection of properties such that

(1) necessarily, whatever has these properties is *x*

and

(2) necessarily, whatever is *x* has these properties.

The clause (2) requires that these properties are essential to *x*, i.e. *x* necessarily possesses these properties. The clause (1) requires that these properties are sufficient for *x*, i.e. whatever has these properties is necessarily *x*. Thus, individual essence distinguishes *x* from any other, actual or possible, object. It specifies *which* particular object it is.

One supporter of the view that objects have individual essences is Leibniz who thinks that individual essences can be given in purely qualitative terms, through a world-by-world catalogue of *x*'s properties. Essentialists of Aristotelian persuasion reject this possibility claiming that no matter how many properties of *x* you enumerate, you will still not be able to uniquely identify *x*. As Wiggins says, the functions of 'this' and 'such' are mutually irreducible, and 'such' cannot replace 'this' (Wiggins 2001: 125-6). Contemporary philosopher, who countenances individual essences, is Forbes (e.g. Forbes 1985); although, he does not think that they can be given in purely qualitative terms. His idea is that an object *x* is identified as the unique entity of its kind originating in a certain way from some other entities. For example, an organism originates from its gametes, an artefact from its original matter. In this way, an object is identified in terms of a certain prior object, so that a question remains how objects to which nothing is prior are uniquely identified. Otherwise, it proved difficult to defend the sufficiency of the essentiality of origin (e.g. Mackie 2006 and Robertson 1998), but if it is only a necessary condition for the object's identity, then it only constitutes its general essence.

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An individual essence of *x* can consist of properties that are essential to other objects as well, but it should have at least one essential property that is unique to *x*. However, what could this property be? An obvious choice is the property of being identical with *x*, but the identity of this property itself seems to depend on the identity of *x*, and thus it is not well suited for singling out *x*. However, it has been argued that we should not assume that the property, only because expressed by means of the predicate 'is identical with *x*', is a relational property. Lowe, for example, suggests that it is better to think of it as a special kind of *intrinsic* property, that is, a special and necessarily unshareable intrinsic property of being the very thing that it is. Such a property is usually called a '*haecceity*', which literally means 'thisness'. On this understanding, the property of being identical with *x* is an intrinsic property whose possession by an object is not constituted by its standing in a certain relation to an already identifiable object *x* (Lowe 2002: 102). Again, what this *haecceity* could really be is a controversial question.

In this dissertation, the main topic is the appropriate characterization of the essential/accidental property distinction and no position is adopted concerning individual essences. Thus, if not specified otherwise, essential properties and essences are taken to be general, i.e. necessary for, but not (necessarily) sufficient for the identity of *x*. Of course, in the case of abstract objects, such as numbers and sets, the idea of them having individual essences is quite plausible.

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CHAPTER 2 THE STANDARD MODAL ACCOUNT

The modal characterization of the distinction between essential and accidental properties is prevalent in contemporary analytic philosophy. The basic idea is that an *essential* property of an object is a property that the object *must* have and an *accidental* property of an object is a property that the object has but *could* lack. The word 'must', used in the characterization, invokes *metaphysical necessity* and 'could' invokes *metaphysical possibility*. Since necessity and possibility are interdefinable – $\Box Fx =_{\text{def}} \sim\Diamond\sim Fx$ – an essential property of an object can also be characterized as an object's property that the object could not lack. Furthermore, the necessity and possibility in this case relate to objects *simpliciter* – an object itself is necessarily or possibly a certain way – so the relevant modality in the explanation of essential and accidental properties is what medieval logicians called *de re* modality.[32]

In this way, an essential property of an object is understood as being the same as its necessary property and most of the contemporary analytic metaphysicians use the two terms – 'essential' and 'necessary' – interchangeably. In parallel, the object's accidental property is explained as its contingent property – Fx & $\Diamond\sim Fx$ – and the two terms – 'accidental' and 'contingent' – are freely interchanged in the literature.

Undoubtedly, the essentiality is closely connected with the necessity. If it is true that Jerry has an essential property of *being a mouse*, then it is also necessarily true that Jerry is a mouse (if he exists). What could be problematic, and has been recently questioned,[33] is the next step in which the essentiality is explained in modal terms. One could agree that the connection between essentiality and necessity is such that necessity plays a role in the explanation of essentiality, but insist on there being some other factors that have a role as well. Alternatively, one could accept the connection between essentiality and necessity, but

[32] The *de re*/*de dicto* distinction is more precisely formulated in 2.1.
[33] Most notably by Kit Fine in 'Essence and Modality' (1994).

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claim that essentiality plays a role in the explanation of necessity and not the other way around. This, for instance, is Kit Fine's position (1994).

Until recently, most of the contemporary analytic essentialists took the modal characterization for granted and did not really address the issue of its adequacy. However, the basic modal characterization, which was proposed as a formal formulation of the view, does have a strange consequence, which will be discussed below. This was remedied in the existence-conditioned variant of the modal characterization;[34] however, the latter is unfortunately not without its own problems. Nevertheless, most analytic essentialists considered these problems to be only technical difficulties and not a sign of the inadequacy of the characterization itself. In order to determine why this was so and why the modal characterization was accepted for so long without being challenged, and as a result has not been thoroughly developed, we must probably look at the circumstances surrounding the development of the contemporary essentialist theories in the 1970s.

At the beginning of the contemporary analytic philosophy, essentialism was regarded with suspicion. After the empiricist criticism, especially that of Locke, the idea of real definition, on which Aristotelian essentialism is based, was abandoned. However, the idea of explaining essentiality in terms of *de re* modality has survived and there were some attempts along these lines.[35] Yet, the difficulty was that the development of modal logic itself at the time was still at the beginning and as a result, the elucidation of essentiality in modal terms did not bring much clarity. Finally, in the late 1950s and early 1960s, the possible worlds semantics for modal logic was developed. Philosophers, equipped with better understanding of modal notions, were in turn able to clarify essentialist claims, and evaluate their truth within the possible worlds semantics for quantified modal logic. All this, along with the anti-descriptivist revolution in the philosophy of language, led to the rehabilitation of essentialism

[34] The names of two variants are from Robertson 2008.
[35] For such early attempt, see Moore 1919-20. Moore speaks of internal properties, but the definition he proposes qualifies as the modal characterization of essential properties.

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and its sudden popularity. Given these circumstances, it is not surprising that in 1970s and 1980s, most essentialists took the modal characterization for granted and busied themselves with developing essentialist theories and employing essentialist notions in tackling various problems, especially in modal metaphysics.

In metaphysics, the primary understanding of essence and the essential/accidental property distinction is connected with identity or the nature of things. It originates from Aristotle's metaphysics where essence is *what it is to be that thing*. This understanding of essence represents the topic of this dissertation and is what Fine has in mind. However, it must be pointed out that analytic philosophers are often primarily interested in modality and only employ essentialist notions in solving certain problems of modal metaphysics. Here I have especially in mind the issues concerning the explanation of modality within the possible worlds framework and its ontological commitments. This can result in an understanding of essentialist notions, which is quite different from the usual understanding concerning the identity of things. Consequently, for many modal metaphysicians, the essence of an object is simply the set of its necessary properties; no distinction between the trivial and non-trivial necessary properties or between the fundamental properties and the entailed properties is needed. The essential or necessary properties are simply those properties that an object *x* has in all possible worlds in which it exists. Often, what philosophers are interested in is the identity of possible individuals over which we quantify in evaluating *de re* modal statements, and within the logical framework, it is tempting to take an object as having an individual essence that is unique to it and in virtue of which it is distinct from all other objects in the domain of quantification. An obvious example of this represents Plantinga's individual essences by which he replaces the possible individuals of Kripke's semantics. Accordingly, it can be argued that many modal essentialists escape Fine's criticism simply because they have some different notion of essence in mind.

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The structure of this chapter is as follows. First, I will shortly mention some points from the quantified modal logic that are relevant for our topic. Second, I will describe both variants of the modal characterization, the strange consequences they have and some examples of how they were dealt with in the literature from the 1970s and 1980s. Third, I will present Fine's criticism of the modal characterization from 'Essence and Modality' (1994), which was the turning point in the perception of the modal understanding of essence. According to him, the modal characterization does not appropriately explain the concept of essence. The responses to and critical analysis of Fine are the topic of the following chapters (Chapter 5 and 6). Finally, I will quickly describe Plantinga's understanding of essential properties and essence to show that modal essentialists often understand essential property and essence differently.

2.1. The quantified modal logic and essentialism

The attribution of essential and accidental properties to things has been connected with *de re* necessity and possibility as opposed to *de dicto* necessity and possibility. *De re*/*de dicto* distinction was introduced in medieval logic, although it was already implicit in Greek logic. Roughly, the modal expressions 'possibly' and 'necessarily' are used *de dicto* in case they modify an entire non-modal sentence or proposition (*dictum*) and are used *de re* in case they attribute a modal characteristic to a particular item(s) or feature(s) (Lat. *res* = a thing) mentioned in the non-modal sentence. For example, a sentence 'A seated man can walk' under *de dicto* reading ('It is possible that a seated man walk') means 'It is possible that-a-seated-man-walk (that is, while seated)'. That which is asserted in a non-modal sentence (that-a-seated-man-walk) is considered as the subject about which the mode is predicated and since a man who sits does not walk, the sentence under *de dicto* reading is false. Under *de re* reading, it is about the object *simpliciter*, namely the subject of the sentence, and the modal

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adverb qualifies the copula. Accordingly, the sentence means 'A seated man has the power or ability to walk'.[36] In other words, a man, who is described as sitting, has as a man the ability to walk, and this is true.

The next thing to consider is what the best formalization of *de re* modal claims, such as 'Jerry is necessarily a mouse' is. Now, it seems natural to hold that the predicate 'is necessarily a mouse' attributes a necessary property to our Jerry and 'necessarily' could be formally presented as a predicate modifier: 'Jerry is necessarily-a-mouse'. David Wiggins defends such predicate-modifier account of essentialist claims (Wiggins 1976 and 2001). He points out that essentialist claims in English are expressed by a *de re* use of 'must', for example, 'Socrates must be a man'. According to him, *de re*/*de dicto* distinction is explicated in terms of the scope of 'necessarily'. In case of *de re*, 'necessarily' governs a predicate (marked with 'Nec') and in case of *de dicto*, 'necessarily' governs a complete sentence (marked as '□'). In the formalization of *de re* uses Wiggins uses an abstraction operator λ and 'Nec': [Nec[(λ*x*)(Man *x*)]], <Socrates>, which reads as 'Anything that is Socrates must be a man'.[37] One should note that in this way the explanation of necessity runs in the language of properties and having of properties – 'Socrates has a property of being necessarily a man' (1976: 293 and 2001: 113).

Maybe even more plausible and closer to traditional understanding is the copula-modifier account, which is a slight variant of the predicational approach. It was proposed by McGinn, who thought that Wiggins's proposal did not quite capture the original sentence 'Socrates is necessarily a man' (McGinn 2000). According to Wiggins's proposal, Socrates has a property of being necessarily a man, but this leaves the way in which Socrates is said to have this modal property still open. However, original sentence looks like this question is

[36] See, for example, Gallois 1998 and Ashworth 1998.

[37] *λx*(Man *x*) is the abstract for the property that any *x* has just if *x* is a man and we express the claim that Socrates falls in the extension of this property as: *λx*(Man *x*), <Socrates>. Then we add Nec to the abstract – Nec[(λ*x*)(Man *x*)], so that it is clear that it governs a predicate (forming with it a complex predicate), leaving the subject term <Socrates> outside of the scope of the modality (Wiggins 2001: 113).

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already settled: Socrates has the property predicated of him in the mode of necessity. This understanding is captured in the copula-modifier theory, where 'necessarily' modifies the copula 'is', and not the predicate 'is a man': 'Socrates is-necessarily a man'. Accordingly, Socrates has a non-modal property *being a man*, which he possesses in the mode of necessity. Here, modal expressions are understood as 'copula modifiers' that specify whether an objects instantiates a property in the necessary or the contingent mode. The theory is a linguistic counterpart of the ontological theory according to which modality is a matter of the strength of the instantiation relation. Further, McGinn plausibly supports his theory with linguistic evidence: '[W]e say "Socrates *must* be a man", "Aristotle *could* be a farmer", "Plato *happens* to be a philosopher". But there are no parallel constructions for "red", "large" etc. When we convert "is" to "must" we incorporate the modality right into the copula grammatically, and this is the natural way to express modal claims outside of stilted philosophical usage.' (ibid: 75-78).

Although the predicational approach accords better with the modal attribution – an object has this or that modal property, or an object has this or that property in a certain modal mode – today the sentential approach to the formalization of *de re* modal claims is customary. It enables us to express essentialist claims in more familiar first-order predicate calculus with added sentential modal operator, '□', where the essentialist claims are formalized as quantification into modal formulae. Moreover, they are evaluated within the possible worlds semantics.

I cannot go into technical details here so let me present only the core idea of the possible worlds semantics. The *de dicto* modality is basically interpreted as quantification over possible worlds: necessity as a universal quantification over worlds and possibility as an existential quantification over possible worlds. Accordingly, a proposition is necessary or necessarily true iff true in every possible world; and a proposition is possible or possibly true

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iff true in some possible world. *De re* modal statements are about what is possible or necessary for particular objects, consequently, for the interpretation of *de re* modality, we need to add to the domain of possible worlds also the domain of individuals as a quantification domain.[38] Now, as propositions are true or false in possible worlds, objects exist or fail to exist in possible worlds and satisfy or not a certain condition. Accordingly, 'An object *x* has necessarily a property *F*' is true iff *x* has *F* in every world (in which it exists), and 'An object *x* has possibly a property *F*' is true iff *x* has *F* in some world (in which it exists).

Thus equipped, we can proceed with the formal representation of *de re* statements in quantified modal logic. Take for example the following two formulae: $\Box\exists x\phi x$ and $\exists x\Box\phi x$. The first says that the proposition (*dictum*) that *something* (not necessarily the same thing in each world) is ϕ is true in every possible world, and the second says that there is a thing (*res*) and concerning this thing (*de re*), *it* – the very same thing – is ϕ in every possible world. The main idea behind the distinction is that *de dicto* formulae do not depend on just how we match up an individual in one world with an individual in another as *de re* do (Cresswell & Hughes 1996: 250-51). From the syntactic point of view, the *de dicto* formulae are those in which no variable occurs free within the scope of a modal operator '$\Box$' ($\Box\exists x\phi x$) and the rest are *de re* ($\exists x\Box\phi x$). This criterion, however, does not classify simple statements of the form $\Box Fa$, where *a* stands for a genuine proper name, as *de re* as we would like, but as *de dicto* instead, since $\Box$ qualifies a closed sentence *Fa*. The reason why we would want it to be *de re* is a semantic one. Genuine proper names are supposed to be rigid designators, i.e., designating the same individual in all possible worlds. Consequently, individual constants are required to be rigid designators and the truth-conditions for $\Box Fa$ require, in turn, the identification of an

[38] There are two possibilities of treating the domain of quantification. One, the simplest option, is to assume a single domain of quantification that contains all possible objects (the fixed-domain or possibilist approach). The other is to assume that the domain of quantification changes from world to world and contains only objects that actually exist in a given world (the world-relative or actualist approach). Both approaches have its advantages and disadvantages, although most of logicians prefer the world-relative approach (Kripke 1963, Fine 1978). Recently, it has been suggested that the fixed-domain approach can be reconciled with actualism (Linsky and Zalta 1994 and 1996).

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individual across possible worlds. In this case, we get an amended criterion for the *de re*/*de dicto* distinction: a formula φ is *de dicto* if no free variable or constant occurs within the scope of a modal operator '□' (Fine 1978:143).

2.2 The basic and the existence-conditioned variants and their flaws

The basic modal characterization of the essential/accidental property distinction can be now expressed as follows:

(1) A property *F* is an essential property of an object *x* if and only if it is necessary that the object *x* has the property *F*;

(2) A property *F* is an accidental property of an object *x* if and only if the object *x* has the property *F* but it is possible that *x* lacks the property *F*.[39]

This is usually further expressed in the language of possible worlds:

(1a) A property *F* is an essential property of an object *x* if and only if *x* has *F* in all possible worlds;

(2a) A property *F* is an accidental property of an object *x* if and only if *x* has *F* but there is a possible world in which *x* lacks *F*.

The problem with this formulation is that it makes all properties of the contingent objects accidental.[40] By definition, contingent objects are those objects that do not exist in all possible worlds, but only in some of them. Put somewhat differently, there are ways the things could have gone according to which a certain object *x* does not exist. However, in such worlds – in which *x* does not exist – *x* also does not have any property. Certainly, in a world *w* in which Jerry does not exist, he is not a mouse. Since according to the basic characterization the essential properties are the ones that the object has in every possible world and the

[39] For instance, see Cartwright's formulation: 'Its [thing's] essential attributes are those it has necessarily, those it could not have lacked. Its accidental attributes are those it has only contingently, those it might not have had' (Cartwright 1986: 615).
[40] The additional plausible assumption here is that an object has properties in a world *w* only if it exists in *w*.

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accidental those that it lacks in some world, Jerry is not essentially a mouse but only accidentally. Yet, the property of *being a mouse* seems the best candidate for Jerry's essential property. This result spells trouble for the basic characterization since any characterization that on its own, without being collaborated with substantive reasons, rules out a compelling version of essentialism must be flawed.

Moreover, the characterization classifies differently instances of the same essentialist thesis solely because it concerns the contingent objects in one case and the necessary objects in the other. For example, in the case of our Jerry, the thesis stating the essentiality of the 'kind' (a mouse) to the object (Jerry) is outright rejected. Jerry is not essentially a mouse since he does not exist in every possible world. On the other hand, in the case of the number 2, which exists in every possible world, the thesis that 2 is essentially a number is not rejected outright. Most of us find both theses compelling and those who do not, have to present reasons why they reject one or the other. Yet there is no good reason why the two cases should be treated so differently. In other words, the necessary or contingent existence of an object certainly does not play such an important role in determining its essential and accidental properties.

The basic characterization in fact rules out as the candidate essential properties all existence-presupposing properties of the contingent objects and the natural move of the proponents of the modal characterization is to include the existence condition in the characterization. This results in the *existence-conditioned characterization*:

(3) A property *F* is an essential property of an object *x* if and only if it is necessary that the object *x* has the property *F* if *x* exists;

(4) A property *F* is an accidental property of an object *x* if and only if the object *x* has the property *F* but it is possible that *x* exists and lacks the property *F*.

In the language of possible worlds, this characterization is expressed as follows:

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(3a) A property *F* is an essential property of an object *x* if and only if *x* has *F* in all possible worlds in which *x* exists;[41]

(4a) A property *F* is an accidental property of an object *x* if and only if *x* has *F* in the actual world, but there is some possible world in which *x* exists and lacks *F*.

In this way, when we talk about essential and accidental properties, we still invoke quantifiers over worlds, but restrict them to only those worlds in which the object in question exists.

The biggest anomaly of this characterization is that it makes *existence* an essential property of every object since no object could exist but lack existence. However, if every object essentially exists, then this characterization on its own rules out a theist's claim that only God has *existence* as an essential property.

The two anomalies are regularly recognized in the literature.[42] Most of modal essentialists subscribe to the existence-conditioned characterization. Nevertheless, the basic characterization itself can be saved by introducing the existence condition in the property considered to be essential. More specifically, the strategy is to claim that our understanding of essential properties is such that we take them to include the existence condition although we do not explicitly express it. For example, when I say that Jerry is essentially a mouse, what I really mean is that Jerry has an essential property of *being a mouse if existent*.[43] Of course, the property of existence has to be exempt from this treatment. Accordingly, the claim that an object has existence as an essential property is to be taken at face value and not as claiming that it has a property of *being existent if existent*.

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[41] See, for example, Forbes's formulation: 'A property *P* is an *essential* property of an object *x* iff *x* could not exist and lack *P*, that is, as they say, iff *x* has *P* at every world at which *x* exists' (Forbes 1986: p. 3). Kripke, similarly, says that essential properties are 'such that this object has to have them if it exists at all' (Kripke 1971: 151). Or Lowe: '[A]n essential property of an object is a property which that object always possesses and which it could not fail to possess – in other words, in the language of possible worlds, it is a property which that object possesses all times in every possible world in which it exists' (Lowe 2002: 96).

[42] They are mentioned, for instance, in the introductory articles on essentialism: Forbes 1997, Robertson 2008, and Yablo 1998.

[43] This possibility is mentioned in Robertson 2008.

The proponent of the existence-conditioned characterization can take a very similar course. Indeed, every object essentially exists; however, this is not problematic. The property of existence is a trivial essential property that belongs to the object solely in virtue of logic (*being existent if existent*), another such property is *self-identity* (Forbes 1986). Such trivial properties can be safely excluded from the account. Now, to save the theist's claim that only God essentially exists, one can argue that what is really meant by it is that only God has existence as a necessary property (Robertson 2008). Somewhat differently, Kripke proposes that the characterization should not be used in the case of existence: '… an exception must be made for existence itself /…/ We should regard existence as essential to an object only if the object necessarily exists' (Kripke 1971: 151, fn 11).

There are some other undesirable properties that come out as essential according to the (both versions of) modal characterization. One such group consists of properties that necessarily belong to objects as a matter of logic, such as the property of *being round if round*, and the abovementioned property of *being existent if existent*. These properties are sometimes called logical essential properties and are excluded from the discussion of essentialism as trivial essential properties. They are trivial, it is said, because – being derived from necessary logical truths – they are essential to everything, belong to everything. Another such group of trivial essential properties are the ones that are derived from analytic truths, for example, the property of *being unmarried if bachelor*, or the property of *being coloured if blue*. Another group are properties that every object possesses because they are derived from mathematical truths, for example, the property of *being such that 2 + 3 = 5*.

The trivial essential properties mentioned above are universal properties, namely, they belong to all objects. A property that is often considered trivial, but is not universal, is the property of self-identity ('identity with *x*'). Although it is logically necessary that every object is identical with itself ('$x = x$'), it is not logically necessary that every object has it ('$y = x$').

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Quite the opposite, the property of self-identity belongs to only one object ('*x*') and none other. However, it is true of every object that it is self-identical and so the property of self-identity is a general property, namely, true of everything there is. The fact that every case of self-identity is unique to just one individual led some authors to take it as a paradigmatic essential property and develop their essentialist theories around it.[44]

The basic idea behind the classification of some essential properties as trivial is the fact that they necessarily belong to everything. Unfortunately, certain implausible properties that come out essential on the modal account do not fall into this category. Some properties are a result of combining two or more properties into a union that an object possesses only if it has at least one of these properties.[45] Consider the property of *being such that three is a number or being a mouse*. Since the first disjunct of the union is a trivial essential property that belongs to every object, the union is also a trivial essential property of every object. However, the second disjunct of the union – the property of *being a mouse* – is Jerry's non-trivial essential property, pertaining to his very nature, and consequently the union is his essential property as well. As a result, Jerry has the same essential property trivially and non-trivially. Alternatively, consider the property of *being a number or a mouse*. This property does not necessarily belong to everything, but it is, for example, an essential property of Jerry and of the number two, but somehow it does not seem that should count as essential. Of course, one could exclude unions as not being properties at all since they are only arbitrary disjunctions of properties.

The authors usually enumerate such groups of properties, put them aside, and focus on the non-trivial essential properties. However, it seems that the divide between the two is not so easily drawn. Let me mention another example, namely, the properties an object has in virtue of the essentialist claims concerning other objects. The property of *being such that*

[44] See Woods 1971: 179-180.
[45] The 'problem of Boolean combination' for modal characterization of essential properties in connection with the theory of natural kinds was discussed in Teller 1975.

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three is a number is derived from 'Three is a number' that expresses an essentialist truth concerning the number three. Now, assuming that numbers are necessary objects, every object possesses that property in every world in which it exists. However, we cannot exclude it as trivial simply on the ground that every object has it, because in the case of the number three itself, the property of *being such that three is a number* is its non-trivial essential property that belongs to it in virtue of its nature.

In *The Metaphysics of Modality* (1985), Forbes deals with such properties by appealing to the notion of category: a trivial essential property of *x* is 'a property *x* has in virtue of a necessary truth concerning items of another category'. His example of such trivial essential property is the following: '[I]t is only trivially essential to material things that they are such that three is the cube root of twenty-seven' (p. 99). The question is whether Forbes is allowed to appeal to the notion of category in distinguishing between trivial and non-trivial essential properties. The notion of category does seem to be very close to the notion of essence. Forbes mentions 'number', 'set', 'organism', and 'event' as examples of category, but these are (at least the first three) also examples of kinds to which objects belong essentially according to the most plausible sortal essentialist thesis (Wiggins 2001). Thus, Forbes's characterization of essential properties cannot be applied in the explanation of at least one essentialist thesis. Moreover, the way in which Forbes characterizes categories seems to make them dependent on individual essences, while these are, in turn dependent on categories. On one hand, he says that '[t]he essential properties of a thing will typically depend upon what category of thing it is' (Forbes 1985: 97). On the other, he says that his use of 'category' is not underpinned by any philosophical theory of categories but is rather practical, that is, he distinguishes 'categories when there are interestingly different things to be said about individual essence' (p. 98, fn. 2). Forbes does not say much more about it, so he could have some plausible answer, but as it stands, the explanation does seem to go around in

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a circle. Additionally, Forbes himself is not entirely pleased with the proposed criterion for triviality since, as he says, it does not quite capture the underlying idea of irrelevance or independence of the properties to or from the object (p. 99).

The idea that the properties an object *x* has essentially, not in virtue of the specific nature of *x*, but in virtue of some completely irrelevant or independent facts should not count as its essential properties is indeed plausible. The main question is whether the modal account can accomplish their exclusion without presupposing what it has set out to explain in the first place and this will be the main topic of the next section.

2.3 Kit Fine's criticism of the modal characterization

In 'Essence and Modality' (1994), Fine discusses the abovementioned difficulties in getting 'right' characterizations of essential properties and argues that they are not only technical hiccups, but in fact symptoms indicating an inadequacy of the explanation of the essential/accidental property distinction and essence in modal terms. The concept of essence that he has in mind is the Aristotelian one and has to do with the identity of things – essence of an object is what makes it the object that it is, and a property of an object is essential if the object must have the property to be what it is. This basic idea, argues Fine, cannot be captured in the modal account since the concept of necessity is too robust for expressing all the sensitivities that matter to the concept of essence.

To see exactly what Fine has in mind, let me present his example concerning Socrates and the *singleton Socrates*, i.e. the set whose sole member is Socrates. According to the modal set theory,[46] it is necessary that Socrates is a member of *singleton Socrates* if Socrates exists. The argument goes as follows. First, it follows from the Set Existence Axiom that

[46] On the modal set theory, see Fine 1981.

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necessarily *singleton Socrates* exists if Socrates exists.[47] Secondly, from the Rigidity of Membership Axiom it follows that necessarily Socrates is a member of *singleton Socrates* if both Socrates and *singleton Socrates* exist.[48] Since the existence of *singleton Socrates* follows from the existence of Socrates, we may conclude that necessarily, Socrates is a member of *singleton Socrates* if Socrates exists. But then, according to the modal criterion, it follows that Socrates essentially belongs to *singleton Socrates* (Fine 1994: 4). As Fine argues, this is a counterintuitive result: 'There is nothing in the nature of a person /…/ which demands that he belongs to this or that set or which demands, given that the person exists, that there even be any sets' (1994: 5).[49] Similarly, on the modal approach, it is part of *singleton Socrates*' essence that it has Socrates as a sole member since it is necessary that *singleton Socrates* has Socrates as its member if it exists. However, in this case, this seems a correct result: it is essential to a set, part of its nature, to have the members that it has. Thus, there is an asymmetry between '*Singleton Socrates* essentially contains Socrates' and 'Socrates is essentially a member of *singleton Socrates*', which cannot be captured in the modal account. Socrates necessarily belongs to *singleton Socrates* as well as the *singleton Socrates* necessarily contains Socrates.

The underlying problem is that the concept of metaphysic necessity is insensitive to its source. In the discussed example, the truth is that *singleton Socrates* essentially contains Socrates. This essentialist claim is true in virtue of the nature of *singleton Socrates* and it gives rise to a necessary truth – *singleton Socrates* necessarily contains Socrates. However,

[47] The Set Existence Axiom says that a set exists if and only if its members do (Fine 1981: 180).

[48] The Rigidity of Membership Axiom says that if an object is a member of a set then it is necessarily a member of the set. The axiom expresses an intuitive idea that it is essential to the identity of a set to have the members that it has (Fine 1981: 179). Now, we have to deal with a familiar problem that if an object is necessarily a member of the set, then it necessarily exists, yet it is not the case that all objects necessarily exist. The solution is to add to the theory a plausible requirement that one's primitive predicates must have existential presupposition. By this requirement, called the Falsehood Principle, in place, the amended Rigidity of Membership Axiom says that if an object is a member of a set then necessarily it is a member of the set *given* that the object and the set exist (p. 180).

[49] Fine further supports his claim with pointing out that in the literature on personal identity, nobody is actually suggesting that in order to understand the nature of a person, you need to know to which set s/he belongs (Fine 1994:5).

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the resulting necessity is not absolute, but relativized. That is, it is true in virtue of the nature of the *singleton Socrates* (the subject of the underlying essentialist claim), but not in virtue of the nature of Socrates. *Metaphysical* necessity, expressed in *de re* formulae in quantified modal logic, is not able to convey which one of the objects that the claim is about is the source of its necessity and is 'indifferent to which of the many objects in a proposition is taken to be its subject' (Fine 1994: 9). Accordingly, both statements – the one with *singleton Socrates* as a subject and the one with Socrates as a subject – have the same truth-value. This is so, because what only matters for the truth of *de re* necessary statement is that certain objects necessarily fulfil the given condition of the formula. In our example, *singleton Socrates* contains Socrates in every world in which the singleton exists and so necessarily fulfils the condition '… contains Socrates'. This is so because it is essential to the singleton that it contains Socrates. But a consequence of this essentialist truth is that Socrates is a member of *singleton Socrates* in every world in which Socrates exists, so he necessarily fulfils the condition '… is a member of *singleton Socrates*'. Now, although Socrates is the subject of the statement 'Necessarily, Socrates is a member of *singleton Socrates*', he is not the source of its truth, but the *singleton Socrates* whose essence involves Socrates is.

Let me recapitulate. An essentialist truth has its source in a particular object and grounds a class of necessary truths, but these in turn do not track the object that is the source of the essentialist truth. As a result, the modal account counts as essential properties of an object the properties that make it the object that it is as well as those that the object has as a necessary result of being that object. In Yablo's words, the modal account does not distinguish the *conditions* of the object's identity from the *consequences* of its identity (1998: 420).

Can this problem be amended? Fine argues that it cannot be, no matter what formal or metaphysical additional restrictions one introduces. In the Socrates and *singleton Socrates*

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example, the essentialist asymmetry is grounded in the different natures of Socrates and the singleton and it does not seem that one can recapture it without invoking the nature of things in question, which is exactly what we set out to explain. As Fine says:

> [W]e want to say that it is essential to the singleton to have Socrates as a member, but that it is not essential to Socrates to be a member of the singleton. But there is nothing in the 'logic' of the situation to justify an asymmetric judgment of relevance; the difference lies entirely in the nature of the objects in question (Fine 1994: 7).

In the example, Socrates is a real person of flesh and blood, while the singleton Socrates is an abstract entity, so one could think that this fundamental difference in kind is the cause of the problem. However, Fine claims that the same problem presents itself if we take two material objects, such as Socrates and the Eiffel Tower. Their natures are unconnected and it is necessary that Socrates and the Tower are distinct, if Socrates exists. However, it is not essential to Socrates that he is distinct from the Tower, 'for there is nothing in his nature which connects him in any special way to it (Fine 1994: 5).

In general, the Socrates and *singleton Socrates* example is very persuasive and I think that every proponent of the modal characterization of essence should address it. The modal account is too broad, but to narrow it down, to exclude irrelevant properties, one has to invoke the nature of objects, which consequently makes the account circular. The possible defence of the modal account is the topic of Chapter 6.

In the end, let me quickly mention Fine's discussion of two familiar difficulties plaguing the modal characterization, the problem concerning necessary truths and the problem concerning the property of existence.

In respect to the problem of necessary truths, Fine again points out that although, for instance, it is necessary that if Socrates exists there are infinitely many prime numbers, it is 'no part of Socrates' essence that there be infinitely many prime numbers or that the abstract world of numbers, or sets, or what have you, be just as it is' (Fine 1994: 5). These necessary

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truths do not have a role in what makes Socrates the 'object' that he is, but since nothing is without the properties that are derived from them (i.e., 'being such that there are infinitely many prime numbers'), the modal account counts them essential to Socrates. As mentioned, the modal essentialists proposed to exclude such properties on the ground that they are universal and thus possessed by any object whatsoever and therefore cannot be counted as essential. However, Fine says that even if we accept this suggestion, we are still left with the non-universal necessary properties, which are the result of conjoining of a trivially essential property with a genuine one, for example the property of *being such that there are infinitely many prime numbers and being a human being*. This property is not the necessary property of everything, but it is a necessary property of Socrates, although it does not seem to be relevant in the characterization of his essence. We could try to exclude the properties that are at least in part based on some necessary truth due to their irrelevance, but Fine rightly mentions that not all such properties deserve to be excluded, for example, it seems right to count the property of *being such that there are sets* as an essential property of the null set (Fine 1994: 7). Thus, we again seem to end up invoking the object's nature in explaining why a certain property although necessary to the object can be excluded from its essential properties.

Concerning the existence-conditioned characterization, which makes existence an essential property of everything, Fine complains that the proposed solutions unjustifiably and *ad hoc* afford special status to the property of existence. The suggested solutions from the literature could be grouped under two more theoretically sounding accounts. One is to say that the term 'essentially' is used ambiguously. In the application to the property of *existence* and its cognates, it has a categorical meaning as defined in the basic characterization and in all the other cases, it has a conditional meaning as defined in the existence-conditioned characterization. The other proposal is to make 'essentiality' disjunctive. Accordingly, when saying that an object has a property essentially, we are 'claiming that either the property is

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existence-like and the object has the property essentially in the categorical sense or the property is not existence-like and the object has the property essentially in the conditional sense'. Concerning the ambiguous treatment of 'essentially', Fine argues that we do not have any independent reason to support it. To test this consider the sentence 'Socrates is essentially a man but not essentially existent'. There does not seem to be any shift in the use of the expression between the first and the second occurrence. If the term had these two senses, then there should be a sense in which Socrates was not essentially a man. Concerning the disjunctive treatment, Fine does not see any legitimate reason to think that 'the essentiality of existence consist in anything different from the essentiality of other properties' (Fine 1994: p. 7).

Fine's criticism of the special treatment of the existence by the modal essentialists is, basically, that there is no good reason to treat it differently. Intuitively, this does not seem to be the case. Existence does seem to be special. If nothing else, many philosophers, e.g. Kant, Frege, and Russell, claimed that it is not a property at all. However, even if it is taken to be a property, the fact of the matter is that it is treated specially in other areas as well, as Robertson points out (Robertson 2008). Concerning the essential/accidental distinction we are trying to characterize, this is not a division of properties *per se* into essential and accidental ones, but a division of properties of a certain *object*. Thus, one could argue that the existence of the object in question is a precondition for there to be the distinction between essential and accidental properties.

However, Fine's point is not about whether existence is in general a special case or not, but rather whether the modal account has a right to treat it specially. The reasoning could go as follows. The *de re* necessary statements are indeed based on essentialist attributions to objects, however their truth is not determined in specific reference to such objects, but in terms of any object necessarily fulfilling a given condition. But then, if it is agreed that

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existence should be exempt from the characterization of the essential/accidental distinction, there is no reason to allow the claim that some objects, e.g. God, essentially exist. In order to justify the special treatment of God's existence, one would again have to invoke the nature of God and we are back to the circularity objection.

Moreover, Fine argues that the double standards lead to incoherence. We reason that the property of *being a man* falls under the existence-conditioned account since it is impossible for something to be a man without existing. In view of that, the property of *being existent man*, which merely makes the existential commitment explicit, falls under the same characterization as well. Yet, how can Socrates be essentially an existent man without being also essentially existent? (Fine 1994: 7-8)

It must be agreed that Fine presents a pretty strong case against the modal characterization. Of course, whether it deals a decisive blow to the modal characterization is a topic for a further discussion. Undoubtedly, Fine isolated the main problem of the modal characterization, namely, how to separate the conditions of object's identity from the consequences of its identity. Let me repeat again that Fine does not question the connection between essence and necessity. The notion of the identity or essence of an object involves a modal aspect, but there is more to it than just necessity. Consequently, it resists the explanation in modal terms. Specifically, Fine agrees that the modal characterization provides a necessary condition: if an object *x* essentially has a property *F*, then it is necessary that *x* has the property *F* (if it exists). However, it does not provide a sufficient condition since it can be necessary that an object *x* has a property *F*, and yet *F* is not an essential property of the object *x*. In other words, any essential attribution is straightforwardly correlated with a necessary truth, but the converse is not true (Fine 1994: 4). Fine claims further that the nature of the modal characterization is such that the sufficiency cannot be achieved without referring to the nature of objects, which, in turn, makes the account circular. In general, according to Fine, the

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notion of essence is so basic that it is highly unlikely that it can be explained in fundamentally different terms (Fine 1995a: 53).

2.4 Plantinga's interpretation of possible worlds and possible individuals

Plantinga takes possible worlds to be maximal or complete possible states of affairs, which are abstract entities. A state of affairs *S* is *possible* if and only if it is possible (in the broadly logical sense) for *S* to obtain; a state of affairs *S includes* a state of affairs *A* just in case it is not possible that *S* obtains and *A* fails to obtain; *S precludes A* just in case it is not possible that *S* obtains and *A* obtains; and *S* is *maximal* if and only if for any state of affairs *A*, either *S* includes or precludes *A*. All states of affairs exist and are necessary, but only some of them are actual or obtain. For example, *Socrates being snubnosed* is a possible state of affairs that obtains. The maximal set of possible states of affairs that actually obtains is the *actual world*. (Plantinga 1974: 44-5).

Further, Plantinga introduces the concept of truth in a world, existence in a world, and having properties in a world. A proposition *p* is true in a world *w* just in case necessarily, if *w* were actual, *p* would have been true. An object *x* exists in a world *w* just in case necessarily, if *w* were actual, *x* would have existed (p. 46). An object *x* has a property *F* in a world *w* just in case necessarily, if *w* were actual, *x* would have had *F* (p. 47). Now, a proposition *p* is necessarily true if and only if *p* is true in every possible world (p. 55) and an object *x* has a property *F* essentially if and only if *x* has *F* in every possible world in which *x* exists (p. 60).

Plantinga believes that any object has innumerably many essential properties. For example, Socrates has the trivial essential properties that every other object has as well: *self-identity, being coloured if red, being something or other, having some properties, being unmarried if bachelor,* and *existence* (if it is a property at all) (p. 60-1). He has also some non-trivial essential properties, namely the properties that not everything has. Some such

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properties he shares with other persons, for example, *being a non-member* and *being possibly conscious*. Only he has an essential property of *being Socrates* or *being identical with Socrates*. The property of *being Socrates or Plato* is essential to Socrates and he shares it with Plato, while the property of *being Socrates or Greek* Socrates shares with many other persons but only he has it essentially (p. 62). Moreover, Socrates has essentially all his world-indexed properties. Suppose that in a world w_1 Socrates has the property of *being snub-nosed*. Then he also has a world-indexed property of *being snub-nosed-in-*w_1, and he has it in every possible world in which he exists, therefore essentially (p. 62-3).

From the way in which Plantinga enumerates Socrates' essential properties, it is obvious that he considers all of them to be on a par. They are the properties that Socrates has in every possible world in which he exists. He does not feel the need to single out those properties in virtue of which he is that very object. Surely, the property of *being snub-nosed-in-*w_1 is not such a property, but Plantinga has no qualms with counting it essential since it comes out necessary in his interpretation of possible worlds semantics.

The same conclusion can be drawn from his understanding of the notion of *essence*. Intuitively, he says, an essence *E* of an object *x* is a property (or a group of properties) that *x* has essentially and that it is *unique* to or it *individuates x*: it must be a property nothing else has or could have had it (P. 70). In other words, by essence Plantinga means individual essence. Formally, it can be stated as follows:

> A property *E* is an (individual) essence of an object *x* if and only if (i) *E* is essential to *x* and (ii) there is no world in which there exist an object *y* distinct from *x* that has *E*.

Accordingly, an essence of an object entails each property essential to it: necessarily, an essence *E* of an object *x* entails each property essential to *x* since it is not possible that *x* has *E* but lacks *P*. Plantinga then proceeds with a characterization of an (individual) essence *simpliciter*:

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> A property *E* is an (individual) essence if and only if there is a world w_1 in which there exists an object *x* that (i) has *E* essentially, and (ii) is such that there is no world w_2 in which there exists an object *y* distinct from *x* that has *E* (p. 72-3).

According to this understanding, an individual could have several individual essences. Thus, *Socrateity* – the property of being Socrates or being identical with Socrates – is an essence of Socrates as well as any of his world-indexed properties that is unique to him, such as *being married to Xantippe-in-@, being A. E. Taylor's favourite philosopher-in-@*. Obviously, on the grounds of such unique world-indexed property as *being married to Xantippe-in-@*, Socrates can be distinguished from all other objects in a world *w*, however this property definitely is not that in virtue of which he is the very object that he is.

Similarly, it is not usual to define an essence simpliciter, but rather an essence of an object. However, Plantinga needs to separate the two in order to defend actualism, which claims that there are and could not be any non-existent objects (Plantinga 1976: 106). Contrary to this view, it is certainly plausible to suppose that there could have been an object distinct from each object that it does in fact exist:

> (1) Possibly, there is an object distinct from each object that exists in the actual world @.

If (1) is true, then there is a possible world *w* in which exists an object, distinct from each of the things that exist in the actual world, and hence it does not exist. Thus, actualism is false (p. 105-6). There are or at least there could have been non-existent, that is, merely possible objects.

In order to avoid the commitment to the existence of merely possible objects, Plantinga replaces the possibilia (possible individuals) of Kripke's semantics with individual essences. The main idea is that properties, like propositions and possible worlds, are necessary existent entities. For instance, Socrates is a contingent being, but his individual

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essence *Socrateity* is necessary – in those worlds in which Socrates does not exist, *Socrateity* is not exemplified, but it does exist. Similarly, there are probably some essences, which are in fact unexemplified. Now, according to Plantinga's view, with each possible world *w*, the domain of individual essences that are exemplified in *w* is associated. Or, more precisely, the domain of *w* consists of the individual essences that would have been exemplified if *w* had been actual (p. 117). On this actualist conception, if (1) is true, then there is at least one essence that is exemplified in some world *w*, but not exemplified in the actual world @ (p. 120). Thus, the commitment to the non-existent objects is avoided. There are unexemplified essences, but no non-existent individuals.

Plantinga needs to have a definition of essence *simpliciter* in order to provide an actualist answer to the problem of mere *possibilia*. However, can essence really be separated from the object whose essence it is? Does it not ontologically presuppose its bearer? If essence is considered to be a property, then it is a way a certain thing is and not an independent entity. In general, particular properties are nothing more than features of a particular object, which we can mentally abstract from the object, but which have no being separately from this object. Moreover, we should not accept the idea of individual essences just because it is convenient within the framework of possible worlds to have every object equipped with its individual essence in virtue of which it is distinct from every other object and thus uniquely identifiable. Even more so, if the only criterion for a property to be an individual essence of *x* is that it is necessary and sufficient for the identification of *x* and it is irrelevant that it may be completely unnatural property that has nothing to do with the fundamental nature of *x*, as for example, the property of *being married to Xantippe-in-@* has nothing to do with what is to be Socrates. The view that objects have only general essences, or individual essences that only include those necessary properties that pertain to its nature,

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may indeed complicate formal interpretation of modal claims, but there is no reason to think that reality complies with the simplest and most elegant explanation.

Clearly, Plantinga does not have in mind the concept of essence that is characteristic of metaphysics of identity according to which essence is what makes it the object that it is, its fundamental nature. He has in mind a unique modal profile of an object, which includes all necessary properties of the object, i.e. all properties that come out necessary on his account of metaphysical modality. Therefore, it may be concluded that his concept of essence is entirely different from the one Fine is considering, thus, making his criticism irrelevant. However, other modal essentialists often attempt to exclude trivial essential properties, usually by pointing out that they do not pertain to the specific nature of the object. This suggests that they understand the concept in the same way as Fine does, and that they need to address his criticism.

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CHAPTER 3 THE CONVENTIONALIST INTERPRETATION OF THE MODAL ACCOUNT

Essentialism as a view on objects and their properties is most naturally taken realistically. Accordingly, the modal account of essentialism is taken to imply that the objects have real essences and that modality is a real feature of the world.[50] The essentialist claims are made true by the modal facts about the objects. The view that I will call conventionalism denies that the source of essentiality is in the objects themselves and that modality is a real feature of the world. Instead, the source of essentiality is in us – in our ways of speaking and thinking about objects –, and all necessity is conventional necessity – analytic or conceptual.

Given the linguistic leanings of conventionalists, what conventionalism is or is not can be better seen if we consider its semantic implications. Thus, conventionalism is not the view that essentialist claims do not make sense, which is extreme scepticism concerning essentialism.[51] Likewise, it is not the view according to which essentialist claims make sense, but do not have truth-value, since they merely serve to express attitudes to the embedded (non-modal) propositions.[52] Conventionalists agree with realists that essentialist claims make sense and have a distinctive kind of assertoric content, but they disagree with them on what is the source of their truth – not objects themselves, but conventionally determined meanings or concepts.

Starting from Quine's analysis of the modality *de re*, conventionalists consider modal properties of an object to be in part a function of our way of describing or conceiving the object. For example, they would say that Socrates is necessarily a human being because the description associated with Socrates includes the property of being human, and they would

[50] In this chapter, the terms 'essential' and 'necessary' on one hand and 'accidental' and 'contingent' on the other are again used interchangeably.
[51] The most prominent skeptic concerning essentialism and quantified modal logic is Quine. See, Quine, 1953, 1953/61, and 1960 (pp. 195-200).
[52] For expressivism concerning modal discourse, see: Blackburn 1986. Wright speaks of modal judgments as recording decisions (Wright 1980: Ch. 23).

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say that Socrates is only contingently snub-nosed because the description associated with Socrates does not preclude him being hook-nosed. However, there is nothing in Socrates himself to sustain a distinction between his necessary and contingent properties. It depends on the associated description which of Socrates' properties will come out necessary and which contingent.

I will say a bit more about this basic conventionalist explanation of the essential/accidental distinction and about how it is explicated within the possible worlds framework below. I will also shortly describe Sidelle's conventionalist proposal addressing the problem of *a posteriori* necessities. However, my aim in this chapter is not to discuss the various conventionalist proposals, but to show that the realist approach to essentialism is better than the conventionalist one. Certainly, the realistic interpretation is the more plausible and intuitive option since essentialism is a claim about objects having a certain kind of properties. Thus, conventionalism is in fact a re-interpretation of essentialism that is supposedly needed because the idea of objects having modal properties is metaphysically and epistemologically problematic. I will describe both, the metaphysical and epistemological, problems, as they are presented by Alan Sidelle in *Necessity, Essence, and Individuation*. Conventionalists themselves advertise their proposal as the one we need to embrace after the first-choice realistic interpretation of essentialist claims proved to be problematic. Therefore, in order to defend the realist approach, it should suffice if it can be shown that conventionalist worries are unfounded. Hence, I will argue that the metaphysical problem is not a problem at all if one does not subscribe to the strict empiricist world-view, which is very different from our common-sense view. I will address the epistemological problem by presenting a sketch of epistemology of modality that was recently developed by Timothy Williamson (2007), which in my opinion best dispels concerns about knowledge of the 'independent modal reality'.

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3.1 Modal properties dependent on the ways of specifying the object

According to conventionalists, an object *x* does not possess modal properties *simpliciter*, but relative to the way in which it is referred to through language. Thus, the truth-value of the essentialist sentence 'Socrates is necessarily a human being' depends on whether the description associated with Socrates includes the property of being human. Moreover, since we are the ones who decide which description should be associated with the object, its modal properties are language-dependent and mind-dependent.

Often it is considered that the relevant description is simply provided by the term that is actually used to refer to the object. In this case, the modal properties are curiously inconstant since the object has a certain property necessarily under one description and soon after only contingently under another. For example, Socrates is contingently snub-nosed when referred to as 'the most quizzical ancient Greek philosopher' and necessarily snub-nosed when referred to as 'the snub-nosed ancient Greek philosopher'. Thus, by simply referring to Socrates in a different way, one can change his modal properties. Moreover, on this approach, almost any property of Socrates can come out essential, for example, being snub-nosed, but surely, nobody wants to claim that Socrates is necessarily snub-nosed. Conventionalists do not reject essentialism as such, just that the source of the truth of essentialist claims is in the objects themselves. Hence, it would be better, if their reinterpretation of essentialism had not resulted in such radically inconstant modal properties and lax criteria for counting as essential property of an object.

Thus, a better option would be to think that an object is associated with some *canonical* description. In this case, although Socrates is actually referred to as 'the most quizzical ancient Greek philosopher', he is only contingently a philosopher, if the property of being a philosopher is not included in his canonical description. Whether this property is included in his canonical description depends on our decision on what is his unique and

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distinctive character. In this way, the modal properties are constant, but language- and mind-dependent. The canonical description reflects our interests and prejudices concerning objects, but in some other society with different interests and prejudices, objects could be associated with entirely different descriptions.[53]

The compromise between the two is the proposal according to which the truth of essentialist claims is evaluated within a particular context of inquiry. In each context, in accordance with the specific interests on the occasion, certain features of an individual are deemed more important and hence held fixed. Thus, origin is essential to individual in the context of biology, while in the context of history it is not, but rather its character traits. [54] Consequently, modal properties of an individual are constant within a context, but can vary over contexts. An important part of this approach is the linguistic thesis that the term 'essentially' is a context sensitive term, which will be further discussed in Chapter 4. Such contextualist treatment, argue its proponents, seats well with the vacillation of our modal intuitions in accordance with the way in which the question of necessity or possibility is set up.

In the framework of possible worlds, the conventionalist strategy is to interpret the relation of transworld identity conventionally. Namely, objects in distinct worlds are identified as the same object according to our interests. For example, Johnston suggests that in any individual we recognise many important features and that on any particular occasion, one of them is chosen as a necessary condition of identification that corresponds best to our interests at the time (Johnston 1977: 416). van Fraassen's reasoning is basically the same, only that he presents the whole picture of how the world is and leaves out the contextual variation:

[53] The idea of the canonical description associated with an object seems pretty close to the idea of the definition of an object. I am not sure if any proponent of the view that the objects have essential properties only in the association with descriptions understood them as canonical. It is interesting that such understanding of the view was suggested by Fine in his unpublished paper from 1984 (Fine 2005a).
[54] For a contextual proposal concerning essentialism about origin, see Johnston 1977.

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> At the bottom, everything that can be said about the world can be said in purely general statements, without modalities. There is no *thisness* beyond *suchness*, but every actual individual is individuated already by the properties it has in this world; hence can be denoted in principle by a definite description (in which the quantifier ranges over actual existents alone. At this bottom level the only necessity we can countenance is purely logical or verbal necessity, which, like God, is no respecter of persons. In this modality, whatever Peter can do, Paul can do also. A semantic representation of this will use a conventional identification of individuals in different worlds, but since every individual plays each possible role in some possible world, *every* choice of conventional identification (which does not violate IND-EX[55]) yields the same result.
> To make sense of our world in a *convenient* fashion, however, we raise certain regularities to the status of laws and (not independently!) certain attributes to the status of natures. In the formal mode, this means that some statements assume the office of assumptions which may be tacitly used in all reasoning, and certain predicates are chosen to form a classificatory scheme. Once this is done, we produce relative (or, tacitly conditional) modal qualifiers. (Fraassen 1978: 13-14)

This is a typical empiricist, or, as van Fraassen calls it, nominalist picture of the world. Our physical world is entirely devoid of modality and consists of general facts. Thus, it can be described in purely qualitative terms. Accordingly, although individuals are individuated by the properties that they possess in the world, they do not have an irreducible role in the explanation of the world. At this level, the only necessity countenanced is verbal necessity or logical necessity in a narrow sense, which is insensitive to individuals. Accordingly, in semantics, the individuals in different worlds are identified conventionally, which is of no big importance since every individual plays each possible role in some possible world. However, if one wishes to save the way we ordinarily speak – that something must or could have happened, that an individual is necessarily or possibly so-and-so – one can introduce physical laws and natures (essences). We simply choose some regularities to be physical laws and some predicates to be natures by which we classify objects into kinds. We do this, because it is convenient, but there is no real difference between accidental and law-like regularities or between contingent and necessary properties of objects. We could just as well choose other

[55] IND-EX is the criterion of individuation according to which no two existents in world *w* have all the same properties in *w* (Fraassen 1978: 7).

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regularities to be laws and other predicates to constitute natures of objects from the ones we in fact chose.

3.2 Sidelle's conventionalist explanation of a posteriori necessities

The introduction of the notion of metaphysical necessity and the rehabilitation of essentialism took place in the early 1970s. Before that, analytic philosophers as a rule had equated necessity with analyticity as well as ground it in our linguistic conventions. Furthermore, by identifying the necessary with the analytic they had explained how necessary truths can be known *a priori*. An analytic sentence is devoid of any factual content and true in virtue of its meaning alone, that is, in virtue of the way in which we use words. As such, a necessary truth cannot be confuted in experience and cannot be but true since it simply records the rules that govern the use of language.[56]

However, Kripke persuasively argued that in principle, the necessity as a metaphysical notion, the *a priori* as an epistemic notion and the analytic as a linguistic notion could not simply be assumed to mean the same. In particular, he showed that the metaphysical boundary between the necessary and the contingent does not coincide with the epistemological boundary between the *a priori* and the *a posteriori*. There are necessary truths that can be known only *a posteriori* (Kripke 1980).

Now, the *a posteriori* necessary truths are synthetic truths as well and thus speak clearly against the identification of necessity with analyticity and against the conventionalist interpretation of necessity. In this section, I present Sidelle's conventionalist attempt to accommodate the *a posteriori* necessity within the empiricist metaphysical picture.

Let me start with the familiar explanation of the *a posteriori* necessary truths. The conclusion that necessarily *p* follows from two premises: one is the conditional that if *p*, then

[56] See, for example, Ayer 1971.

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necessarily *p*, and the other is the antecedent of this conditional, namely *p*. This is represented schematically:

$p \rightarrow \Box p$
p
$\therefore \Box p$

If we take the claim that water is necessarily H_2O, then its analysis will be:

(1) If water is H_2O, then water is necessarily H_2O.

(2) Water is H_2O.

Therefore,

(3) Water is necessarily H_2O.

Now, the conclusion is necessary because of (1), but known *a posteriori*, since it was an empirical discovery that (2) water is H_2O. Now, the important question is how do we obtain (1)? Often, the above argument is supplemented in the following way:

(1a) Water is a compositional stuff (chemical kind).

(1b) Composition (chemical microstructure) is necessary to anything that is a compositional stuff (belongs to chemical kind).

(1b) states what is essential for something if it is a compositional stuff and Sidelle calls such claims that specify what it is for something to be a particular individual or of a particular kind the 'general principles of individuation'. For water, the relevant general principle of individuation states that

$\forall x$ (If x is a chemical compound, then (if p is x's chemical structure, then it is necessary that x has p)) (Sidelle 1989: 34, fn. 20).

It is plausible to assume that the principles of individuation, given their essentialist character, are themselves necessarily true if true at all.

How do we come to know them? Kripke himself says that we come to know the premise (1) by an *a priori* philosophical analysis (Kripke 1971: 153 and 1980: 159). Others

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often speak of intuitions. On this explanation, then, the *a posteriori* necessary truths are deducible from nonmodal truths and certain *a priori* necessary principles. Now, Kripke does not say anything more about the '*a priori* philosophical analysis', so it is difficult to say what he thought the nature of these *a priori* principles are. Still, almost certainly, he thought of them as substantive modal claims. However, another option is to take them to be grounded in conventions, i.e. conventions that determine the ways in which we individuate objects and natural kinds. Thus, water is essentially H_2O because our conventions dictate that sameness of kind requires sameness of the chemical structure.

Sidelle embraces this conventionalist, non-substantive understanding of the general principles of individuation. He sees them as 'object-level formulations of conventions we have adopted concerning how we will describe things, particularly when we are speaking of nonfactual, or hypothetical, cases (Sidelle 1989: 35-6). Then he explains the *a posteriori* necessary truths as follows. The general principles of individuation are analytic truths that are grounded in our conventions for judging numerical identity across time and membership conditions for kinds. This guarantees that the necessity of the *a posteriori* necessary truths is grounded in us, in our ways of describing things. However, the conventions of individuation are of a more general sort, that is to say, they specify the parameters for our linguistic behaviour; for example, if something is a chemical kind, then it has its chemical composition necessarily. But they do not specify the values, that is to say, they do not tell us specifically what the essentialist features or individuative criteria are in any particular case. For example, in order to specify the individuative criteria for water, we must first empirically discover what the actual chemical composition of water is, namely H_2O. This is why the resulting necessary truth is known *a posteriori* (p. 37).

Clearly not enough was said about the proposal, but Sidelle does seem to succeed in showing how the necessity of the *a posteriori* necessary truths could be conventional in

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character by having its source in our individuative practices. I will not get into the more detailed explication of the theory,[57] but rather turn to the reasons by which conventionalists are trying to persuade us into giving up the intuitive idea of modal truths being grounded in independent modal facts. Conventionalists identify two problems concerning the realist approach to necessity – the metaphysical and the epistemological problem – that supposedly make the conventional interpretation the better and more appealing option of the two. In the presentation of the problems, I will mostly follow Sidelle's argumentation.

3.3 The metaphysical problem

Conventionalists simply cannot see what the real necessity could be. 'Metaphysically, nothing in the actual world', says Sidelle, 'seems to be a candidate for determining what is necessarily the case. What is necessary depends on more than what is actual' (Sidelle 1989: 116). He further adds that '[n]ecessity is not an "ingredient" to be added to a state of affairs. There must be something about the state of affairs itself in virtue of which it is necessary, if there is to be a real necessity' (ibid: 117). But what could this be? Sidelle professes to be puzzled: 'What, in what is actual, could make it the case that something could not be differently?' (ibid: 117).

Often this is also termed as the arbitrariness problem. What is the ground of the essential/accidental property distinction, what is it in virtue of which it is true that an object is necessarily *F* and only contingently *G*? (Della Rocca 2002: 230). Quine famously claimed that nothing in the object itself could sustain the distinction, and hence it can be at best arbitrary (e.g., Quine 1960: 199).

I must admit that I have problems in understanding what is so puzzling for conventionalists about objects themselves grounding the essential/accidental distinction. An

[57] In Chapter 3, Sidelle defends his account from two objections. First is that the empirical premises that need to be added to our general principles of individuations are themselves necessary and the second that conventions need to appeal to real necessity (Sidelle 1989).

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object *x* has some properties essentially or necessarily because it could not exist without them, and the others only contingently since it can exist without them. Why could this distinction not be grounded in the objects themselves? For example, McGinn quite plausibly understands modality as a matter of the strength of the instantiation relation (McGinn 2000).

Conventionalists formulate the metaphysical problem in such a way that one wonders how it can persuade anybody but conventionalists themselves that modality cannot be a real feature of our world. The whole argumentation seems to be that they cannot see what the real necessity could be since real necessity has no place in our world. Sidelle himself is a good example of this futile strategy. He says:

> Now, I find it hard to believe that there are people who do not find the notion of real necessity either incomprehensible or at least extremely troublesome. I believe that anyone thinking about it for a short while will be quite unsympathetic to the notion of real necessity, unless presented with philosophical arguments to the contrary. (Sidelle 1989: 85)

Of course, at the bottom of the conventionalists' rejection of the idea that the actual world grounds modality is their empiricist view of the world. In the world something happens or it does not happen; there is no room for a distinction between what happens necessarily and what only happens contingently. Accordingly, necessity can only be invented by us.

At the end of the day, then, the main issue is what the fundamental building blocks of reality are. Conventionalists believe that necessity and possibility cannot be a primitive feature of reality and thus must be reduced in some way. In general, metaphysicians like to operate with as little fundamental facts as possible and thus being proponents of reduction, but this in itself is not enough to guarantee that the world can really be explained only in terms of the chosen facts. As I have already pointed out, in our everyday life and in scientific and philosophical theorizing, we regularly employ modal notions. This could be taken as an indication of the important role modality has in our world and used in the argument for the modality as being ontologically fundamental and irreducible. In any case, conventionalists'

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argument that modality cannot be real because it is not amongst the fundamental building blocks of reality of their choice does not have much force. It does not win converts, but just reassures the believers.

According to more charitable interpretation, the metaphysical objection is not an outright rejection of the realist character of metaphysical modality, but just a complaint that modal realists do not explain how modality features in the world. However, if something is fundamental and irreducible, that does not mean that it simply has to be taken as primitive in a sense of being simply given and not allowing any explanation. Even if metaphysical modality cannot be defined in fundamentally different terms, we can improve our understanding of it by clarifying what exactly we mean by it, by showing how it functions and connects with other notions and so forth. But there are many realist attempts to do exactly this, so I think that conventionalists should tell us where do they go wrong and present some reasons why we should accept the empiricist view of the world.

The epistemological objection stating the impossibility of the knowledge of independent modal facts is a step in this direction, but before turning to it, a few words should be said on the comprehensible and unproblematic character of the championed conventionalist world-view.

Conventionalists believe that all substantive knowledge must come through senses and from experience. Since knowledge of necessity cannot be acquired from empirical observation, it has to be a non-substantive knowledge concerning the relations of words or concepts. However, in this way, they do not relegate only *de re* metaphysical necessity to the linguistic realm, but also truths of logic and mathematical truths. Are they all devoid of any factual content? It seems quite unlikely that such a big chunk of our knowledge is non-substantive and only reflects the way we use words and concepts.

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Moreover, a distinctive thesis of conventionalism is that we freely choose conventions and that there exist alternative conventions that are equally good as the one we decided on. For example, we have seen that in van Fraassen's picture, at the fundamental level, we simply have objects with all their properties and only afterwards, we pick out certain properties by which we classify objects into kinds. We could just as easily choose some other properties and then our world would consist of quite other kinds of things with different principles of individuation. Now, the question is whether the idea of one and the same object falling under one kind and then another even makes sense. Wiggins, for example, thinks that it does not, since there is no object at all without its principle of individuation. An individual cannot be individuated or 'singled out' from the rest of reality simply by enumerating its non-modal qualitative properties as van Fraassen supposes to be the case at the first level. However, if the object's actual principle of individuation is the necessary precondition of its existence, then the object could not have had a different one (Wiggins 2001: Ch 4 and 5).

There are two contentious points in Wiggins's argumentation that need to be further developed before we even consider the question whether the object's essences are conventionally chosen. One is the claim that the object can be singled out only as an object of a certain kind and the other is the claim that the object has its actual principle of individuation necessarily. As Penelope Mackie has pointed out, if the principle of individuation is supposed to be a principle of distinction and persistence that governs the object's identity over time, then there is no reason to suppose that the object could not have had a different principle of individuation. In other words, one should not suppose that the condition of the identity over time coincides with the condition of the identity across possible worlds (Mackie 2006: Ch 8).

Sidelle's understanding of the world is similar to van Fraassen's, although perhaps even a bit more radical. According to him, conventionalists should embrace the conception of a world as an array of matter or 'stuff' (Sidelle 1989: 55, fn. 11). This stuff looks just as the

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world looks, but devoid of modal properties and identity conditions, which are projected onto this stuff only as a result of our conventions. There are no phenomena of kind-sameness or of numerical sameness across time. On this conception, at the bottom there are no objects at all, but just an array of matter or stuff. Again, the question is how do we get from amorphous stuff to the world carved into a multiplicity of particulars? Can our conventions play such an enormous role? Better still, as Lowe asks, 'what place can we ourselves have in such a world, seemingly so much of our own making? For we can hardly be supposed to make ourselves, in the sense in which /…/ it seems we have to make the other objects of which we speak' (Lowe 2002: 114). Similarly, Elder argues that Sidelle can assign no properties to the 'stuff' except immediate phenomenal properties, which makes it difficult to explain how we come to acquire and internalize our conventions of individuation and how come that we all imply them more or less in the same way (Elder 2007).

Because there are so many unresolved issues concerning essences and metaphysical necessity, we become very quickly entangled in details, which makes it difficult to assess the main question, namely, whether the principles of individuation can really be freely chosen by us. One thing though is clear – the conventionalist picture of the world is radically different from the commonsense picture. This of course cannot be a decisive objection, but it does put the conventionalists' complaint about the incomprehensibility of the world with real necessity into a different light. Anyway, I think the best way to promote the realist interpretation of metaphysical necessity is to point out the implausibility of the conventionalist interpretation of logic and mathematics. Mathematical knowledge does seem substantive and we certainly do not think that we could freely choose some other conventions that would result in different mathematics. The mathematical truths are necessary *tout court* and not only conditional on 'changeable' linguistic conventions. However, if one can find acceptable the idea of mathematical truth as mind-independent and necessary in a stronger sense than can be

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guaranteed by conventions, why not then a related idea of essentialist truths as mind-independent and really necessary? To conclude, the metaphysical argument in itself does not present any good reason to abandon the realist interpretation of metaphysical modality and essence.

3.4 The epistemological problem

The epistemological problem is composed of two parts, one concerning the possibility of the knowledge of metaphysical necessity in principle and the other concerning our actual methods of acquiring modal knowledge.

Concerning modal knowledge in general, the objection is posed as follows. The familiar empirical methods are adequate for determining what *is* the case, but not what *must* be the case, so it is impossible to know what must be the case. However, why must we take it for granted that 'all substantive knowledge comes through senses'? If we take this claim literally as saying that we should count as knowledge only what we can immediately observe to be true, then we must discount many beliefs that we consider to qualify as knowledge, for example, beliefs about the future, electrons, or laws of nature. On the other hand, if we take the claim loosely and accept truths that can be indirectly confirmed or justified, then why not accept the modal truths as well. For example, we have a pretty good evidence that glass is fragile, that salt is soluble. However, if we are prepared to countenance a certain kind of modal truths, why not do the same with the other kinds of modal truths? Why suppose that from what is the case it cannot be inferred what must be the case?

The epistemological problem is often developed in connection with the possible worlds interpretation of modal discourse. The truth conditions for modal propositions refer to possible worlds, which are usually interpreted as some kind of abstract entities. However, if possible worlds are abstract entities, then there can be no causal relation with possible worlds,

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but then how can we know anything about them? For example, Sidelle asks, 'What is our access to other possible worlds in virtue of which we know that in none of them is some actual truth false?' (Sidelle 1989: 87).

Undoubtedly, the proponent of the realist interpretation of modality needs to explain how do we as natural beings come to possess modal knowledge. Again, however, it must be pointed out that it is unfair to take it for granted that the only way of acquiring knowledge is through a direct causal interaction with the entities in question. The possible world framework is taken way too seriously as well. I have the impression that when the possibility of the access to possible worlds is doubted, people have in mind Lewisian possible worlds – spatiotemporally and causally closed systems on a par with our physical world. In this case, it seems more naturally to be puzzled about how we can know what is going on in them, if we do not have a causal contact with them, if we cannot use our perception.[58] However, on the alternative interpretation of possible worlds as some or other kind of abstract entity, possible worlds are more similar to mathematical objects than to our world. Naturally, not everybody would agree that mathematical knowledge is about abstract objects, but the view is quite plausible. And if we can acquire knowledge about causally inert mathematical objects, why not about possible worlds taken to be unactualised states of affairs (Plantinga), uninstantiated ways the actual world might have been (Stalnaker), or consistent world-descriptions (Adams).

So far, the epistemological problem has proved to be stated in too narrow terms to persuade anybody but the strict empiricist that modal necessity if considered a real feature of the world cannot be known. The next question is whether the methods by which we actually come to know modal truths are in fact capable to 'reach' to the objective modal facts. If conventionalists can show that they are not suited for acquiring knowledge of the independent reality, then realists have something to worry about. To this question, I turn next.

[58] For Lewis's defence against this objection, see Lewis 1986: 108-115.

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Usually, the method of acquiring the modal knowledge is thought to be conceiving or imagining.[59] We represent scenarios to ourselves using words, concepts, or sensory images on actual and non-actual things in actual and non-actual configurations. The conceivability is taken to be a test of possibility – if a scenario is conceivable, then we take it to be possible; and the inconceivability is taken to be a test of impossibility – if a scenario is inconceivable, then we take it to be impossible. Accordingly, something is taken to be necessary if its opposite is inconceivable.

However, the question is how our faculty of conceiving or imagining can be a reliable way of acquiring knowledge about a completely independent reality. Moreover, how do we know that our inability to conceive something is not only a sign of our limited ability of conceiving? After all, we would not want to turn our cognitive limitations into real necessities.

Imagination could be taken as a reliable guide to modality only if a connection between our imaginings and the modal structure of the world is established. Conventionalists do not think that this can be done, while they think that this method of acquiring modal knowledge makes perfect sense if modality is interpreted conventionally. Let me present Sidelle's argument:

> Suppose, though, that all necessary truths are analytic. We ought then to be able to derive a contradiction, or at least a linguistically inadmissible assertion, from the negation of a necessary truth. If we cannot derive a contradiction from an assertion, we may assume that it is not analytically false, hence not necessarily false, and thus possible. But it is just the linguistic rules that determine necessity and possibility that also constrain how we may describe the contents of our imagination. To say that we cannot imagine that *p* is false is to say that we cannot think of circumstances in which we would deny that *p*. Similarly, when we say that we can imagine that *p*, we assert that it is nothing incoherent in the thought that *p*. (Sidelle 1989: 88-9)

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[59] Mostly, authors use 'conceivability' and 'imaginability' interchangeably, although one can distinguish between sensory imagining on one hand, and non-imagistic conceiving on the other. See Gendler and Hawthorne 2002: 7-9. Sometimes, authors also speak of employing intuitions, which has a more rationalistic ring to it.

The basic idea is that linguistic rules limit what is possible – an assertion should not imply contradiction –, as well as what can be imagined – contradictions should not be used in description of imaginings. Since contradictoriness is the boundary of what is possible as well as of what is imaginable, the move from imaginabilty to possibility is reliable. On the conventionalist interpretation, our usual method of acquiring modal knowledge is reliable because it is knowledge of the 'limits of our conceptual scheme' and not of a completely independent reality (Sidelle 1989: 87).

Sidelle argues further that the fact that imagination has a role in our modal inquires is a reason more to think that 'the sort of reality about which we are learning has more to do with how we think than with how the world independently is' (Sidele 1989: 89). Imagining is not a method for learning about the world. For example, in determining what is physically necessary or possible we do not think that the testimony of our imagination would help. We can easily imagine tables floating in the air and various other violations of physical laws. Imagination can only help us learn about our mental capacities and our linguistic conventions.

Sidelle has also an explanation for the fallibility of this method. In the case of the *aposteriori* necessary truths, imagination gives us information about our general conventions of individuation, which tell us what to say if some empirical conditional is satisfied, for example, 'If water is H_2O, then something is water only if it is H_2O'. Because empirical facts also have a role in determining what is modally the case, imagination may fail as a guide to modality. That is, maybe we do not know the empirical fact or we are mistaken about it and then we draw a wrong modal conclusion (ibid: 100-2).

To sum up, conventionalists claim that the nature of imagination is such that it cannot be a method of acquiring knowledge of independent modal reality, but only of modality determined by conventions. Therefore, we should accept the conventionalist interpretation of

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modality. Obviously, the best possible reply is to provide a plausible realist epistemology of modality.

3.5 The epistemology of metaphysical modality as a special case of the epistemology of counterfactuals

Recently, Timothy Williamson provided a very plausible realist epistemology of the metaphysical modality.[60] The underlying idea is that our cognitive capacity to discriminate metaphysical possibilities from impossibilities is not some special cognitive capacity exclusive to philosophical thinking, but part of the ordinary cognitive capacity to handle counterfactual conditionals (Williamson 2007: 136).

Counterfactual thought is an inevitable part of our empirical thought. We cannot deal with the actual if we are not prepared to deal with a wide variety of contingencies, which are mostly counterfactual. Counterfactual reflections facilitate learning from experience, and counterfactual conditionals provide empirical evidence, give clues to causal connections and so on. Given that we use counterfactual thinking daily in our dealings with the environment, it is plausible to assume that we have a non-trivial knowledge of counterfactuals (Williamson 2007: 137-41).

Next is a sketch of the epistemology of counterfactuals (Williamson 2007: 137-55). How do we come to know counterfactual conditionals, such as 'If the bush had not been there, the rock would have ended in the lake'? (Counterfactual conditionals are formalized with the sentence operator '$\Box\!\!\rightarrow$'.) Williamson schematizes a typical overall process of evaluating counterfactual conditional as follows:

> One supposes the antecedent and develops the supposition, adding further judgments within the supposition by reasoning, offline predictive mechanisms, and other offline judgments. The imagining may but need not be perceptual imagining. All of one's background knowledge and beliefs are available from within the scope of the supposition as a description of one's actual

[60] See especially Williamson 2007: Ch 5, but also 2005.

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> circumstances for the purposes of comparison with the counterfactual circumstances (if we know *B*, we can infer $A \mathrel{\Box\!\!\rightarrow} @B$ for any *A*; in this respect the development differs from that of the antecedent of an indicative conditional). Some but not all of one's background knowledge and beliefs are also available within the scope of the supposition as a description of the counterfactual circumstances, according to complex criteria (the problem of cotenability). To a first approximation: one asserts the counterfactual conditional if and only if the development eventually leads one to add the consequent. (Williamson 2007: 152-3)

Most of the time, we come to know counterfactuals by using our imagination. The default for the imagination is to proceed as 'realistically' as it can, except for the deviations introduced by the thinker. We face Goodman's problem of cotenabilty – how to separate background knowledge from what must be imagined away in imagining the antecedent. However, argues Williamson, given the fact that our knowledge of counterfactuals is considerable, our procedures of evaluating cannot be very misleading (ibid: 143). The imaginative exercise can be conducted in a form of reasoning, but more often, it is a case of simulation. We simulate the truth of the antecedent and then use our expectation-forming capacities offline in order to determine the truth-value of the consequent under that simulation. We form new judgments as well. In general, our capacity to evaluate counterfactuals recruits *all* our cognitive capacities to evaluate sentences.

Accordingly, one asserts the counterfactual conditional if and only if the development eventually leads one to add the consequent. Usually, we do not develop the initial supposition only once. If we find various ways of imagining the antecedent equally good, we test them all. If such repetitions under small variations still give the same result – the consequent, the result is more robust. If the counterfactual development of the antecedent does not robustly yield the consequent, we first ascertain that we did not make any mistake in research. Then, we must assess if the consequent would not robustly emerge if we continued with the development. If we are confident in the thoroughness of the research, then we deny the counterfactual conditional. The best case for the denial of the counterfactual we have when the

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counterfactual development of the antecedent yields the negation of consequent (although sometimes we must accept both counterfactuals together).

The reliability of our imaginative evaluation of counterfactual conditionals is guaranteed since we use offline our cognitive faculties that are reliable in their online application across a wide range of circumstances. Of course, this does not mean that our use of imagination is infallible, but it is moderately reliable and, as Williamson points out, practically indispensable (ibid: 155).

Next, Williamson explains how the epistemology of metaphysical modality is subsumed under the epistemology of counterfactuals (Williamson 2007: 155-165). There is a connection between counterfactual conditionals and metaphysical modalities. First, the strict conditional implies the counterfactual conditional:

NECESSITY $\Box(A \rightarrow B) \rightarrow (A \mathrel{\Box\!\!\rightarrow} B)$

Second, the counterfactual conditional transmits possibility:

POSSIBILITY $\Box(A \mathrel{\Box\!\!\rightarrow} B) \rightarrow (\Diamond A \rightarrow \Diamond B)$

Together, NECESSITY and POSSIBILITY yield necessary and sufficient conditions for necessity and possibility in terms of the counterfactual conditional, although not the converse. The necessary is that whose negation counterfactually implies a contradiction ($\perp$):

(1) $\Box A \equiv (\neg A \mathrel{\Box\!\!\rightarrow} \perp)$

Since possibility is the dual of necessity, we get that the impossible is that which counterfactually implies a contradiction and the possible is that which does not:

(2) $\Diamond A \equiv \neg(A \mathrel{\Box\!\!\rightarrow} \perp)$

Given that the equivalences (1) and (2) and their necessitations are logically true, we may conclude that metaphysically modal thinking is logically equivalent to a special case of counterfactual thinking. As Williamson argues, '[w]hoever has what it takes to understand the

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counterfactual conditional and the elementary logical auxiliaries $\neg$ and $\perp$ has whatever it takes to understand possibility and necessity operators' (ibid: 158).

Given (1) and (2), the epistemology of metaphysical modality can be treated as a special case of the epistemology of counterfactuals. Our cognitive capacity to evaluate the counterfactual conditionals gives us what we need to evaluate the corresponding modal claims. Thus, concludes Williamson, 'far from being *sui generis*, the capacity to handle metaphysical modality is an "accidental" by-product of the cognitive mechanisms that provide our capacity to handle counterfactual conditionals' (ibid: 162). As such, our capacity for modal thinking cannot be isolated from our capacity for ordinary thinking about the natural world, and thus should not be treated as suspect and unable to provide knowledge.

Now, we assert $\Box A$, in accordance with (1), when our counterfactual development of the supposition $\neg A$ robustly yields a contradiction; we deny $\Box A$ when our counterfactual development of $\neg A$ does not robustly yield a contradiction (and we do not attribute the failure to a defect in our research). Similarly, we assert $\Diamond A$, in accordance with (2), when our counterfactual development of the supposition A does not robustly yield a contradiction (and we do not attribute the failure to a defect in our research), we deny $\Diamond A$ when our counterfactual development of A robustly yields a contradiction (ibid: 163).

The fact that imagination is used in the assessment of the mundane counterfactuals makes the role of imagination in the assessment of modal claims more plausible. Moreover, the imaginative evaluation of counterfactuals already incorporates a conceivability test for possibility and an inconceivability test for impossibility as special cases. Probably, we are less reliable in evaluating the counterfactuals whose antecedents involve bigger departure from the actual world than the ones that stay closer to 'home'. However, the use of imagination in the evaluation of philosophical claims of possibility and necessity is legitimate in principle and in many cases successful as well. Consequently, it is conventionalists' turn to explain why the

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proposed epistemology of modality is not acceptable for them. The realist understanding of metaphysical modality does not succumb to the metaphysical and epistemological problems.

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CHAPTER 4 ESSENTIALISM CONTEXTUALISED

Contextualism about essentialism is actually the metaphysical view that objects have essential properties combined with the semantic thesis stating that the term 'essentially' is context sensitive or, more generally, that the truth-values of essentialist sentences are context-dependent. The topic of this chapter is only the contextual version of the modal characterization of the essential/accidental property distinction.

Conventionalists, as we have seen, like to point out that a question whether an object *x* has an essential property *F* cannot be answered in an absolute and unqualified way, but only relative to the way in which the object is referred to on the particular occasion (the context of description) or relative to the particular context of inquiry with its specific interests (e.g., the context of biology or the context of history). However, the contextualised approach to essentialism is not reserved only for those that explain the essential/accidental property distinction and metaphysical modality conventionally, but can be employed by realists concerning metaphysical modality as well. Such example is David Lewis's counterpart-theoretic treatment of *de re* modality (1968/83 and 1986).

In previous chapter, I have argued for the realist understanding of the essential/accidental property distinction by showing that the conventionalist doubts about the metaphysical necessity are fuelled by a very narrow empiricist view of the world. Therefore, I believe enough was said on conventionalism and I will discuss here contextualism in combination with the realist interpretation of the metaphysical modality, which results in the essential/accidental property distinction that is grounded in the mind-independent modal facts, but depending on the way, in which we conceive, describe, or refer to the object in a particular context. Thus, the essential/accidental property distinction and essences are determined partly by the mind-independent and partly by the mind-dependent facts.

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A reason why any realist about metaphysical necessity would adopt such view is probably epistemological. Let say that an essentialist bases her judgment that an object *x* has *F* essentially on the fact that she cannot conceive or imagine *x* without *F*. Now, critics claim that we cannot acquire knowledge of essences in this way since our conceivings or imaginings are not reliable. First, they draw attention to the fact that there is not much consensus when it comes to the essentialist matters. Indeed, the advocates of essentialism disagree between themselves about particular cases. For example, on one hand, Wiggins claims that Cicero is essentially a human being, but is more likely to think that Cicero's origin is not essential to him (2001), while on the other, Kripke is certain about the essentiality of origin for individuals (1971 and 1980). However, most importantly, they point out that one and the same person seems to vacillates a great deal in judging what properties an object has essentially from one occasion to another, which seems to depend significantly on the way in which the thought experiment by which we determine essential properties is set up. This problem is called the variability of essentialist intuitions.[61] For the sceptics, it is an indication that the essential/accidental property distinction is arbitrary, without any ground in the reality, and hence should be rejected.

The best reply, of course, would be to show that in fact, we are not so whimsical in modal judging. This involves a defence of imagination/intuition as a reliable method of acquiring modal knowledge. However, another option is to acknowledge the phenomenon yet insist that it does not imply the unreliability of essentialist intuitions. This strategy is a contextual approach to essentialism, according to which the variability of essentialist intuitions turns out to be unproblematic once we realize that the expression 'essentially' is a context-sensitive term. Accordingly, the truth-conditions of the sentence '*x* is essentially *F*' can vary from one context of use to another and the sentence may express different

[61] See Paul (2004).

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propositions in different contexts. Since we are unaware of context shifting, we get the impression that we have conflicting essentialist intuitions about a certain essentialist judgment. However, once we realize what is going on, the conflict of intuitions turns out to be only apparent.

My aim in this chapter is to show that adopting contextualism is not the answer to the variation of essentialist intuitions objection that the proponent of essentialism should adopt. First, I will outline the basic contextualist strategy and argue by help of an example that our linguistic practice does not seem to support the contextualist claim that 'essentially' is a context-sensitive term. Moreover, the contextualist strategy provides an unfavourable interpretation of something that so often happens in the debate on essentialism, that is, of situations when one philosopher's intuitions oppose those of another philosopher. Afterwards, I will shortly describe David Lewis's contextual approach to essentialism in order to illustrate that contextualism is not a strategy that any real proponent of essentialism should endorse. I conclude with some thoughts on Lewis's claim that everything goes in connection with essences.

4.1 A sketch of a contextualist strategy

The contextualist strategy seems to be an elegant way out of the predicament in which the problem concerning the variability of essentialist intuitions puts advocates of the realist interpretation of metaphysical modality. It simply acknowledges the variability and then presents a semantic explanation of the phenomena. According to contextualists, the variability is only apparent, deriving from the fact that the expression 'essentially' is a context-sensitive term. Thus, the sentence '*x* is essentially *F*' expresses different propositions as uttered in some different contexts, and what is required for satisfying '*x* is essentially *F*' varies from one context of use to another. As a result, our essentialist intuitions vary from one context to

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another, depending on, say, a way of describing the object or a way of highlighting certain properties of the object; however, what is most important, they do not vary within a context. The variability of intuitions turns out to be only apparent (we unjustifiably compare intuitions over contexts) and no threat to the reliability of the method by which we acquire essentialist knowledge (invariable intuitions within a context).

Let me illustrate the contextualist strategy by an example. At a philosophical conference two speakers talk about the same topic, namely essentialism; moreover, they both illustrate their claims on the example of water. The philosopher *A* in her talk claims that water is essentially composed of H_2O, arguing that she cannot imagine a situation in which water exists without being composed of H_2O. In general, a specific constitution of objects is what makes them the objects that they are. At the end of her talk, she again self-assuredly utters, 'Water is essentially composed of H_2O'. On the other hand, the philosopher *B* in her talk claims that a particular composition is not essential to water, arguing that she can imagine a situation in which water looks the same colourless liquid, has the same taste and is thirst quenching, yet is not composed of H_2O, but, say, of XYZ. Basically, *B* argues that water can have whatever composition compatible with its phenomenal characteristics that are in fact essential to water. Since her thought experiment supposedly shows that water could be composed of XYZ, *B* concludes her talk by uttering: 'Water is not essentially composed of H_2O'.

Both – the philosopher *A* and the philosopher *B* rely in their argumentation on the thought experiments, but end up supporting apparently opposing views about the essence of water. What does the audience think about this issue? Many agree with the philosopher *A* that water is essentially composed of H_2O, but there are some who side with the philosopher *B* and think that water is essentially a colourless, thirst quenching liquid and only accidentally composed of H_2O. A few are simply confused and do not know what to believe, since they

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found both argumentations, by the philosopher *A* and by the philosopher *B*, compelling. However, there are many others who simply think that the fact that *A* and *B* both used imagination in their argumentation but came to opposing conclusions means that there is something wrong with their method of acquiring essentialist knowledge. Finally, there are few contextualists, who have a completely different view on the issue. They do not understand it as a question about the essence of water or a question about the method of acquiring essentialist knowledge and its reliability, but primarily as a question about the semantics of essentialist sentences. According to contextualists, the expression 'essentially' in the sentence 'Water is essentially composed of H_2O' is a context-sensitive term. Thus, its semantic content changes from one utterance to another and consequently, the sentence 'Water is essentially composed of H_2O' expresses different propositions in different contexts of use. The context of use of the philosopher *A* is such that it highlights the composition of water and therefore, when *A* utters the sentence, '*P*', 'Water is essentially composed of H_2O', it expresses the true proposition that water is essentially$_{(A)}$ composed of H_2O. On the other hand, the context of use of the philosopher *B* highlights the phenomenal characteristics of water and therefore, when *B* utters the sentence, 'Not *P*', 'Water is not essentially composed of H_2O', it expresses the true proposition that water is not essentially$_{(B)}$ composed of H_2O. If 'essentially' had not been a context-sensitive term, then the philosopher *B* would have been endorsing the denial of what the philosopher *A* said and we would have a disagreement on our hands. However, 'essentially' is a context-sensitive expression and therefore, according to the contextualists, the fact that the sentence uttered by *B* is verbally the negation of the sentence uttered by *A* does not mean much, since what proposition is expressed by the sentence also depends on the context in which the utterance is made. Therefore, contextualists conclude that the disagreement is only apparent and is due to our unawareness that 'essentially' is a context-sensitive expression. In fact, *A* and *B* speak truly within their respective contexts, but they are

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talking past each other. Once we recognize this, the problem dissipates. Especially those in the audience who found both arguments compelling can relax since there is certainly nothing wrong with their capacity to evaluate essentialist claims. They were right to agree with the philosopher *A* in the context in which water's constitutive properties were highlighted and they were right to agree with the philosopher *B* in the context in which water's phenomenal properties were highlighted instead.

4.2 Linguistic evidence for the context sensitivity of 'essentially'

Contextualism seems to be an elegant way out of the predicament caused by supposed variability of essentialist intuitions. However, one should not forget that contextualism is primarily a semantic thesis making claims about our natural language. Consequently, to uphold contextualist understanding of essentialist claims, one should not simply postulate that the expression 'essentially' is context sensitive since that solves our problems with the variation of essentialist intuitions, but must show that as a matter of fact our use of language discloses its context sensitivity. In order to determine if this is the case, I will employ two linguistic tests for context sensitivity.

Of course, everybody agrees that there are some context-sensitive expressions, but is 'essentially' one of them? In his seminal work 'Demonstratives', David Kaplan calls these context-sensitive terms indexicals and presents the following list of expressions: the personal pronouns 'I', 'my', 'you', 'he', 'his', 'she', 'it'; the demonstrative pronouns 'that', 'this'; the adverbs 'here', 'now', 'tomorrow', 'yesterday', the adjectives 'actual', 'present' etc. (Kaplan 1989: 489). Most of these expressions are obviously context sensitive and we automatically use them accordingly.[62] For example, when someone utters 'I am sleepy' we automatically apply the rule that the personal pronoun 'I' refers to the person who utters it: when she uses it,

[62] I say most because some semanticists doubt that 'actual' is a context sensitive term.

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it refers to her, but when I use it, it refers to me, and so forth. We have no problems in understanding that the 'I' has a different reference when uttered by different persons and that the sentence 'I am sleepy' expresses different propositions on these occasions. Analogously, if 'essentially' is a context-sensitive expression, then, although the rule for determining the contextual variation in the contribution of 'essentially' is undoubtedly not so straightforward as the rule for 'I', we should be able to say something about it and our linguistic practice should reveal that the sentence '*x* is essentially *F*' expresses different propositions in different contexts of use.

Nowadays, many semanticists think that at least some other expressions, besides the obvious ones that Kaplan enumerated, are contextually sensitive. For example, quantifier expressions such as 'every bottle', 'no cat', 'the desk', gradable adjectives as 'tall', 'dangerous', 'small' are widely held to be context sensitive. In contemporary epistemology, it is quite an influential view that epistemic expressions such as 'know' and 'justified' are context sensitive. In all these cases, philosophers try to elicit intuitions about whether what is semantically expressed by an utterance of a certain sentence varies in some systematic way with contexts of use. Basically, they try to show that the expression in question behaves similarly to the obviously context-sensitive terms. I will try to do the same for 'essentially'.

The most obvious test for context sensitivity concerns the possibility of disquotational indirect reports. Cappelen and Lepore more precisely speak about the 'Inter-Contextual Disquotational Indirect reports': '[t]ake an utterance *u* of a sentence *S* by speaker *A* in a context *C*. An Inter-Contextual Indirect Report of *u* is an utterance *u'* in a context *C'* (where $C \neq C'$) of "*A* said that *S*".' According to the proposed test, an expression *e* is context sensitive, if the occurrence of *e* in a sentence tends to block disquotational indirect reports (i.e., render such reports false) (Cappelen and Lepore 2005: 88).

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Let us see how the test works in the case of the first person pronoun 'I'. When Leo utters 'I am sleepy', I cannot report of his utterance by uttering 'Leo said that I am sleepy'. This would be a true report if Leo had uttered 'Maja is sleepy'. Instead, I truly report what Leo said by uttering 'Leo said that he is sleepy'. As expected, utterances of 'I' cannot be disquotationally reported (except by self-reporters). Similarly, the demonstrative expressions 'that' and 'now', as well as other expressions from Kaplan's list block disquotational indirect reports.

Does 'essentially' pass the test of inter-contextual disquotation? Let us return to the example of the two philosophers talking about the essence of water. My friend *C*, who missed *A*'s lecture, asks me how was it during the lecture given by philosopher *B*. I quietly tell him: 'It was okay. Oh, *A* said that water is essentially composed of H_2O'. It does not seem at all problematic to me to make such an unqualified claim, especially at the lecture of another philosopher who claims that water is not essentially composed of H_2O. This seems to suggest that I do not consider 'essentially' to be a context-sensitive expression. However, one has to be a bit more careful here. Contextualists do not claim that 'essentially' is one of the obvious context-sensitive expressions, such as 'I', where context sensitivity is clearly rule-governed, so maybe its context sensitivity is more difficult to detect and we are more prone to mistakenly disquote on 'essentially' in reporting utterances. For example, almost everybody thinks that gradable adjectives are context-sensitive expressions, but they also do not pass this test with flying colours. For instance, *A* utters, 'John is short', and I do not have any qualms in reporting, '*A* said that John is short'. But in fact I should, since *A* is a coach and was discussing basketball players. Therefore, when *A* in context *C* uttered: 'John is short', what *A* meant was that John was short for a basketball player. However, if my context *C'* is radically different from context *C*, say under discussion is not the height of a basketball player, but the height of a grownup male, then I should not have used disquotation in reporting what *A* said. I

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could report that *A* said that John was short for a basketball player, but not simply that *A* said that John was short.

The reason that we are more prone to allow disquotational indirect reports in the case of 'short' than in the case of 'I' is probably the lack of other words with which we could express in our context what 'short' expresses in the contexts with other standards; namely, something other than 'short' expresses in our context. The temptation disappears if we supplement 'short' with 'for an *F*' that makes reference to a comparison class, namely, 'short for a basketball player'. Maybe the same applies to the 'essentially' as well. However, it seems that in this case it is more difficult to make it clear that the 'essentially' in context *C* expresses something other than 'essentially' expresses in our context. In the context *C'*, when disquoting, we seem to be forced to describe what the context *C* was like, '*A* said that water is essentially composed of H_2O, but *A* said this in a context *C* which highlights the composition of water, while our context highlights the phenomenal characteristics of water and 'essentially' expresses something else'. Probably, things could be simplified if we would supplemented 'essentially' with '*F* highlighted', which tells us what property of the object is considered relevant in a context. For instance, I could report that '*A* said that water is essentially[constitution highlighted] composed of H_2O.

Despite this simplification, the context sensitivity of 'essentially' would still make the communication across contexts difficult. It would also complicate the preservation of information in memory and its transmission by testimony, since the piece of information acquired in *C* could be used later on only if we preserved the information about what was *C* like. Thus, I find it hard to believe that this is really how 'essentially' behaves. After all, language is a tool for communication and it is reasonable to expect that it would develop in such a way as to smooth out complications. Especially, if there are no visible advantages that would outweigh complications.

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Actually, we have seen that contextualists do find context-sensitivity of 'essentially' advantageous because it explains away the problem of the variability of essentialist intuitions. The basic concern is that one and the same person vacillates in essentialist judgments depending on how the thought experiment is set up and contextualists devise a solution for this problem. The suggestion is that the variability in essentialist intuitions corresponds to the harmless variability in the semantic content of 'essentially' across contexts. However, the variability of intuitions undermining the reliability of the method of acquiring essentialist knowledge is the one that occurs within a context.

The problem of intuitions addressed here is a vacillation in intuitions that supposedly happens in one person when judging a certain essentialist issue. However, another problem mentioned was the problem of opposing intuitions among different people/philosophers. Can the contextualist approach deal with the fact that philosophers often disagree between themselves on essentialist matters? Let us slightly change our example about the two philosophers, so that the philosopher *A*, curious what the philosopher *B* has to say, attends her lecture. At the end of the lecture, she cannot resist reasserting that water is essentially composed of H_2O. Her intuition is that its particular composition is essential to water. There is a contextualist present in the audience who starts to explain to her that she should take into consideration that *B*'s context is such that the phenomenal characteristics are highlighted and in this context, *B* speaks truly when she utters 'Water is not essentially composed of H_2O'. In fact, since *A* is in the same context, namely at *B*'s lecture, where phenomenal characteristics are highlighted, *A*'s utterance is false. To this, it seems to me, *A*'s response would most likely be that she does not care what property of water is supposedly highlighted; her intuition tells her that composition is essential to water and full stop. *B* is completely wrong if she thinks that she can imagine a situation in which water is not composed of H_2O.

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In my opinion, what we usually encounter in the debates concerning essentialism are situations in which philosophers profess opposing intuitions and not so much situations in which each philosopher has conflicting intuitions. The philosopher *A* does not waver in her conviction at all when it comes to some very fundamental essentialist claim, such as the claim that water is essentially composed of H_2O, or that Socrates is essentially a human being. She might be less sure about specifics, for example, whether being H_2O is not only necessary, but also sufficient condition for being water as well. About this, she could be hesitating, unable to decide one way or the other. Similarly, the philosopher *B* sticks with her intuition that composition is not essential to water and does not want to give in either. Therefore, it seems that the real problem is more about philosophers disagreeing between themselves, having opposing intuitions, and I do not think that contextualism can really help us with this.

Suppose we accept the contextualist treatment of essentialism. What can we then say about the situation when *A* insists at *B*'s lecture that water is essentially H_2O? Are *A* and *B* unable to understand each other, unable to participate in the context of the other? As it is said, do they simply talk past each other, but fail to realize it? This does not seem a charitable interpretation of the situation. Contextualism makes communication over contexts difficult and implies that speakers are regularly mistaken about what they say. To make things worse, philosophers themselves who usually engage in the essentialist discussions are presented as being unaware of the contextual shifts, thus engaging in futile quarrels that could be easily ended if they had only realized that they are saying the same words, but expressing different propositions. Therefore, it would seem more reasonable to interpret this situation as a real case of a disagreement on what is essential to objects, and consequently, give up the contextual approach.

Moreover, the changed example provides us with another reason to think that it is more likely that 'essentially' is not a context-sensitive term. As we have seen, the philosopher

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A understands *B*'s lecture as a challenge directed towards her account of the essence of water and simply insists that she is right. However, if by any chance *B* had manages to shake *A*'s conviction, she would have conceded that she was wrong and *B* right, or, most likely, that she was not sure anymore what the essence of water is. The way in which one responds to challenges is also one of the linguistic tests for determining if we use 'essentially' as a context-sensitive or invariant term. For example, Hawthorne mentions three ways in which one can respond to challenges about one's claims (Hawthorne, 2004). *S* can concede that her previous claim was wrong, or *S* can stick to her gun and insist that she is right, or *S* can clarify her previous claim and protest that her challenger has misinterpreted her and does not really understand what she is saying. When the third approach, namely clarification, is used, then it becomes clear that in this case we are dealing with context-sensitive expression (ibid: 104-106). Such is the case with 'short', where the coach *A* insists that John is indeed short, but he clarifies that he meant that John was short for a basketball player. Through *A*'s clarification of what he meant, the context sensitivity of 'short' is manifested. However, when essentialist claims are challenged, our example suggests that we are not intuitively inclined to use the clarification technique as the coach *A* in the case of 'short' is. Not many philosophers would have responded to the challenge by a clarification, for example, I claimed that water was essentially[highlighted composition] composed of H_2O, while I have never claimed that water was essentially[highlighted phenomenal properties] composed of H_2O. Concession and sticking to one's guns come to mind more naturally than clarification does.

Above I assumed that a contextualist must interpret a situation, in which the philosopher *A* insists that composition is essential to water, although she is at the philosopher *B*'s lecture, where the phenomenal properties are highlighted, as a debate in which the participants talk past one another, but do not realise it. Thus, there is no disagreement, both philosophers speak the truth according to their own standard of evaluation, but unfortunately,

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they do not realise it. Consequently, I argued that one should rather adopt the interpretation that better suits the appearances, namely, the two philosophers really contradict each other, thus concluding that 'essentially' is not really a context-sensitive term.

However, the assumption that a contextualist must accept such 'disagreement-free' interpretation of the situation has been challenged by Keith DeRose (2004). He discusses this on the example of the conversation involving the context-sensitive term 'know' in which the personally indicated content for 'know' of one speaker diverges from the personally indicated content of the other speaker. The speakers fail to adjust to one another; each is indicating that one's own standards are the right one and that her claims contradict those of the other speaker. Thus, DeRose thinks that this situation can be described as a situation in which the speakers really contradict each other. But who speaks the truth then? DeRose thinks that the 'exploding scoreboard' view is the best in such cases in which the divergence between the two personally indicated contents is great. On this view, there is no correct score and claims involving the relevant term are neither true nor false. Such is the case with the debate between the sceptic and her opponent, in which both refuse to adjust and thus to mean 'the same thing by the key terms in question' (p. 13).[63] The sceptic insists on very high standards for the correct application of 'know' and the opponent insists on the lower, ordinary standards for the correct application of 'know. Similarly, the divergence is great in the debate of our two philosophers. The philosopher *A* insists that in order for 'essentially' to be applied correctly, the constitution should be highlighted, and the philosopher *B* insists that the phenomenal properties should be highlighted. Hence, the 'exploding scoreboard' view applies here as well – neither philosopher speaks the truth or the falsity. Such result is maybe not that problematic in the epistemological case since the consensus is that although we encounter difficulties in

[63] Afterwards, DeRose endorses the gap view because it better applies to the cases of small divergence, but delivers the same result in the cases of great divergence: a relevant claim is true iff true on both personally indicated contents, false iff false on both personally indicated contents, and neither true or false if true on one personally indicated content, but not on the other (DeRose 2004: 15).

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rejecting the sceptic's standards for knowledge, they are unreasonably high. You cannot reason with a 'lunatic' as one might say. However, in the contextualised essentialist case, the two philosophers defend, on the face of it, two equally reasonable views on what property of an object partly determines the content of 'essentially', so one feels shortchanged when told that we have to be satisfied with indeterminate result. Moreover, we would have to live with many such indeterminate results. Surely, there should be a right answer, some way to decide what the right standard for determining the content in a certain context is, and thus what the right content of the relevant context-sensitive word is. However, what is the correct application of 'know' and 'essentially' is not a linguistic question entirely, but determined with the nature of knowledge or the nature of things as well. For example, the philosopher *A* opposes to the change of the content of 'essentially', because she thinks that, if any characteristic of an object should be highlighted in any context, then it certainly should be constitution. And this is so, because according to her metaphysical view constitution is essential to objects in every context, or regardless of any context. Therefore, the disagreement between the philosophers *A* and *B*, although termed as the disagreement about the appropriate application rule for a context-sensitive term, is not primarily semantic, but rather metaphysical disagreement. Therefore, we are again facing a situation in which two philosophers have opposing modal intuitions and we are wide open to the sceptics' objection concerning our method of acquiring modal knowledge. Thus, I conclude that the contextualist approach cannot help essentialists stave off the sceptics' annoying epistemological questions.

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4.3 David Lewis's counterpart-theoretic treatment of de re modality

Ultimately, the decision for or against the contextualist treatment of essentialist claims is grounded in the metaphysical views we adopt, specifically the ones on the nature of things and the essential/accidental property distinction. In this section, I will present Lewis's

contextual proposal in order to show that although it allows us to keep up with appearances (in terms of making essentialist claims), it is in principle unfriendly to essentialism according to which objects have some properties essentially because of what they are in themselves, entirely independently of our fleeting thoughts about them.[64]

Lewis understands essentialist claims as a subset of *de re* modal claims that are analysed within the counterpart theory,[65] which involves, as he puts it, 'genuine modal realism, without overlap, and with qualitative counterpart relations' (Lewis 1986: 259). By genuine modal realism without overlap, he refers to his identification of possible worlds with maximal mereological sums of spatiotemporally interconnected things. Familiarly, he treats modal operators as quantifiers over possible worlds, but since possible worlds do not overlap, each individual exists only in one possible world. As a result, for the case of *de re* modality, the usual treatment of necessity as the truth in all possible worlds and possibility as the truth in some possible world has to be supplemented with the counterpart theory. Namely, the *de re* modal claim that Cicero is necessarily a human being is true if and only if there is no world according to which Cicero exists and is not a human being. However, for this to be true, Cicero himself would have to exist in other worlds and be a human being in them, which is excluded by the concept of a worldbound individual. Lewis solves the predicament by introducing the concept of a counterpart: for an individual from one world to exist according to another is for an individual from one world to have a counterpart in another. Accordingly, 'Cicero is necessarily human' is true if and only if there is no world in which a counterpart of Cicero is not a human being. A counterpart of Cicero in a world *w* is an individual *y* that resembles Cicero more closely than any other individual in *w* does.

Concerning the variability of our essentialist or modal intuitions, the interpretation of *de re* modal claims in terms of counterpart relations between objects provides, according to

[64] For a discussion on Lewis's contextual approach to *de re* modality, see Divers 2007, Buras 2006. For a discussion on the contextual approach to *de re* modality in general, see Paul 2004 and 2006.
[65] See especially Lewis 1968/83 and 1986.

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Lewis, the unproblematic and reasonable explanation of this phenomenon. The counterpart relation is defined as a relation of similarity. For example, to say that an object *x* is possibly *F* is to say that a counterpart of *x* in some world *w* – an object *y* that resembles *x* more closely than any other object in *w* does – is *F*. More specifically, the counterpart relation is a comparative overall qualitative similarity relation that is 'the resultant of similarities and dissimilarities in a multitude of respects, weighted by the importances of the various respects and by the degrees of the similarities' (Lewis 1968/83: 28). But given the fact that the representation *de re* works by comparative overall similarity of complex things, it is no surprise, says Lewis, that we do not have once and for all settled answers about what must or might have been true concerning a certain individual.

Thus, in Lewis's analysis of *de re* modal claims, the 'inconstancy of *de re* representation' is not problematic, but an expected and welcomed consequence of the nature of the counterpart relation. Namely, there is a lot of indeterminacy involved in the counterpart relation, which is differently resolved in different contexts. Or, as Lewis puts it:

> We have many and varied relations of comparative similarity. Some differ from others because they put different weights or priorities on different respects of (intrinsic or extrinsic) qualitative similarity; and even if they are alike in the respects of comparison they stress, they can still differ because one is more stringent than another. Any of these relations is a candidate to be expressed by the word 'counterpart'. Likewise many different relations, some more stringent and some less, some stressing some respects of comparison and others stressing others, have a claim to be called 'similarity'. The exact meaning of 'counterpart' or 'similar' is neither constant nor determinate. These words equivocally express a range of different semantic values, and the limits of the range are subject to pressures of context (Lewis 1986: 254).

In general, everything is similar to everything in countless many ways, and which out of these ways will be chosen vary from one context to another. In other words, the comparative overall similarity relations are extremely vague because properties are extremely abundant. Thus, there is no once and for all established answer to the question if something is possibly or necessarily a certain way, but only relative to a particular context.

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Let us say a bit more about the mechanism that governs the resolution of this indeterminacy. The first element is the relevance of respect. That is, among many respects of similarity and dissimilarity, not the same one is always chosen as the crucial factor in the determination of the object's counterparts. The second element is the relevance of degree. That is, similarity relations can be more or less stringent, namely, the required minimum standard of similarity can vary. As said, both kinds of relevance are fixed by context. Accordingly, the expressions 'counterpart' and 'similar' are context-sensitive terms, whose designation is partly determined by complex features of context. The mechanism that determines the contents of 'counterpart' and 'similar' in a certain context is pragmatic and is called the Rule of Accommodation: 'what you say makes itself true, if at all possible, by creating a context that selects the relevant features so as to make it true' (Lewis 1986: 251).[66]

The Rule of Accommodation is a general rule that governs any conversation, not only those concerning modal matters. Of course, one should not interpret Lewis as saying that the Rule of Accommodation makes what is said true regardless of the facts of reality. His rule has a *proviso* – 'if at all possible'. However, in the case of *de re* modal claims, according to Lewis, the restriction does not play a very important role. Indeed, *de re* modal truths are grounded in the mind-independent facts – in the qualitative similarity and counterpart relations among individuals. However, there are numerous similarity and counterpart relations among individuals, and according to Lewis, nothing in the ontology to privilege one over all the rest. Thus, almost any *de re* modal claim can be interpreted in such a way to be true or false. You just have to create such a context, in which 'the' counterpart relation is so precisified that it makes the utterance true. This is achieved through the way in which we refer

[66] In 'Scorekeeping in a Language Game' (1979), the Rule of Accommodation is more formally stated in the following way: 'If at time *t* something is said that requires component *sn* of conversational score to have a value in the range *r* if what it is said to be true, or otherwise acceptable; and if *sn* does not have a value in the range *r* just before *t*; and if such-and-such further conditions hold; then at *t* the score component *sn* takes some value in the range *r* (Lewis 1979: 240).

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to an individual in speech or thought, since different ways of referring tend to evoke different counterpart relations.

According to this understanding, also almost any essentialist claim can be made true or false depending on the chosen counterpart relation. As Lewis explains,

> [T]he essences of things are settled only to the extent that the counterpart relation is, and the counterpart relation is not very settled at all. …the vagueness of the counterpart relation – and hence of essence and de re modality generally – may be subject to pragmatic pressures, and differently resolved in different contexts. The upshot is that it is hard to say anything false about essences. For any halfway reasonable statement will tend to create a context that (partially) resolves the vagueness of the counterpart relation in such a way as to make that statement true in that context (Lewis 1968/83: 42)

According to counterpart-theoretic analysis, an object *x* is essentially *F* just in case all of *x*'s counterparts (including *x* itself) are *F*. What individuals will count as counterparts of *x* is determined in a context through the way in which we refer to *x*. Lewis admits that he is presenting a 'half-hearted and flexible essentialism' (Lewis 2003: 27) In the following passage this flexibility is explained as follows:

> Today, thinking of Saul Kripke as essentially the occupant of a distinguished role in contemporary philosophy, I can truly say that he might have been brought by a stork. Tomorrow, thinking of him as essentially the man who came from whatever sperm and egg he actually came from, I can truly say that he might never have had a philosophical thought in his life. I would be right both times, but relative to different, equally admissible, counterpart relations. (Lewis 2003: 28)

Thus, by thinking of an individual in a certain way, we invoke a certain counterpart relation and by thinking of it in some other way, we invoke some other counterpart relation. As a result, the modal claim 'Kripke could have been brought by a stork' expresses different propositions in two contexts. Moreover, in the first context, *A*, in which Kripke is thought of as essentially occupying a distinguished role in contemporary philosophy, the proposition$_A$ is true and in the second context, *B*, in which Kripke is thought of as having his actual origin essentially, the proposition$_B$ is false. In this way, everybody can successfully defend their

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favourite essentialist theses or reject the essentialist theses they detest the most. The problem is that their success is limited to their narrow context of use and has no implications for the truth of the opponents' position within their own cosy narrow context of use. Lewis does ground the essential/accidental property distinction in the mind-independent and objective modal facts – the similarity and counterpart relations based on the properties that individuals share, but it also makes it hopelessly mind or language dependent, since it is up to us to decide which counterpart relations out of numerously many are relevant in a context. In a way, we could say that the essential/accidental property distinction and essences are vague and that things do not have determinate essential or accidental properties independently of the way they are referred to in thought or language. Or, even better, we could say that each object has multiplicity of incomparable essences that do not say much about the object itself, but rather about many ways in which we can refer to it and rearrange properties in two groups, i.e., the essential and the accidental.

Thus, Lewis can express essentialist theory in the counterpart-theoretic terms, but the result is not what any serious essentialist would hope for. The understanding of what counts as a counterpart of *x* is too liberal to allow a development of any proper essentialist view. As Lewis admits, in connection with essences, almost everything goes. It should be emphasized that the offender here is not the counterpart theory itself, but Lewis's contextual determination of the counterpart relation.[67] If Lewis had chosen one specially favoured relation in definition of what is to be a counterpart, the theory would support essentialism.[68]

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[67] On the difference between debunking and non-debunking contextualism, see Forbes (1986).
[68] For an attempt of essentialist counterpart theory with the inclusion of natural properties in its ontology, see Buras 2006.

4.4 In connection with essence – everything goes?

Lewis is so eager to accommodate the supposed *de re* inconstancy that in his theory almost anything goes when it comes to modal claims about objects. For example, he has no problem with the modal sentence 'Humphrey could have been a poached egg' being true in a certain context. We just have to choose the right respect of similarity. However, I must admit, that I do not see what this respect could have been. It must be some entirely strange property. In the debate on essentialism in general, imagination is too often used as a carte blanche. You just proclaim that you can imagine something and there it is – a metaphysical possibility. How could Humphrey be a poached egg? Maybe I can imagine a situation in which his mother is a hen, and the egg from which Humphrey chicken would have originated is poached. However, does everything that I can imagine represent metaphysical possibility? Some people act as if there is no constraint on imagination, when judging metaphysical modality. Why not, though? When I try to imagine what would have happened if I had jumped through the window, I first decide what kind of possibility I am after. If it is a physical possibility, then in imagining what could have been, I must only count those possibilities that do not contradict the laws of nature. Similarly, imagination should also be subject to certain constraints in the case of metaphysical modality.

In the previous chapter, I have outlined Williamson's counterfactual-based account of modal knowledge. On this account, metaphysical necessity and possibility are logically equivalent to certain counterfactual conditionals involving negation and logical contradiction.[69] Thus, anybody who is capable of counterfactual reasoning and reasoning with

[69] Although the counterfactual conditionals are notoriously vague and context-sensitive, the infection does not automatically spread onto the metaphysical modalities. As Williamson points out, in Lewis-Stalnaker framework 'different readings and sharpenings of counterfactual operator $\Box\!\!\rightarrow$ may differ on the similarity ordering of worlds while still agreeing on what worlds there are, so that the differences cancel out in the relevant counterfactual conditionals' (Williamson 2007: 175-6). In other words, in case of counterfactuals, the vagueness and context-sensitivity afflicts the similarity relation, which means that in different contexts, different worlds can be chosen as the closest world to ours. However, in the case of metaphysical necessity, no matter which world is

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negation and logical contradiction is capable of reasoning about metaphysical modality as well. In general, the counterfactual thinking is deeply integrated into our thinking about the spatiotemporal or physical world and the use of imagination has a major role in the evaluation of counterfactual conditionals. Consequently, imagination is not some mysterious and special faculty, but a faculty that is practically indispensable in our ordinary dealings with the environment. As such, it can be shown to be a moderately reliable method of acquiring knowledge. Now, when we evaluate in imagination a certain counterfactual conditional, one supposes the antecedent and then develops the supposition by adding further judgments. In this, all of one's background knowledge and beliefs are available as a description of one's actual circumstances for the purposes of the comparison with the counterfactual circumstances and some of them are available as a description of the counterfactual circumstances. In the end, one asserts the counterfactual conditional if and only if the development eventually leads one to add the consequent. In the developing the supposition, we face the problem of how to separate background knowledge from what must be imagined away in imagining the antecedent (the problem of cotenability). Nevertheless, what is clear is that in evaluating a certain counterfactual conditional, imagination is constrained with a certain portion of background knowledge that is held fixed in the counterfactual circumstances as well. Not everything goes. In the evaluation of counterfactuals, whose antecedents involve small departures from the actual world, more of background knowledge is held fixed. In the evaluation of modal claims about particular objects, the departure is larger, but some parts of the background information should still be held fixed. As Williamson points out, in general, we develop counterfactual suppositions in such a way that we hold certain constitutive facts about objects fixed (Williamson 2007: 164).

chosen as the closest one, the developed supposition will be impossible and will counterfactually imply contradiction.

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Now, what is held fixed in Lewis's example about Kripke? He is thought of as being essentially the occupant of a distinguished role in contemporary philosophy and with this held fixed, we consider whether he could have been brought by a stork. However, I do not see how this property could ever be his essential property. Even the biggest doubters about metaphysical modal knowledge must admit that what is actual is also possible. And while undoubtedly Kripke occupies a distinguished role in contemporary philosophy now, there was a time when he did not occupy this role, say, when still a little baby. Therefore, it is possible that Kripke is not the occupant of a distinguished role in contemporary philosophy, therefore not essentially the occupant of this role.

Clearly, Lewis's view on essentialism is not based much on the considerations about objects of everyday experience, but rather theoretical considerations. Namely, according to Lewis, a theory should be accepted as true if its adoption has theoretical advantages, even if it is at variance with our commonsensical views. Thus, he endorses modal realism according to which other worlds are concrete entities like our world because the thesis is useful in the analysis of modality, counterfactuals, content of thought, properties, propositions, and so on. Part of this is also a principle of recombination according to which anything can coexist with anything else and everything can fail to coexist with anything else, size and shape permitting (Lewis 1986: 88-89). Lewis says that this principle is a modal version of Hume's denial of necessary connections between distinct existences. He adopts it because it supposedly guarantees a plenitude of worlds. If we adopt this principle, he argues, the worlds are abundant and logical space is complete; there are no gaps. Given this, it is not surprising that he is prepared to consider that Humphrey could have been a poached egg, and that there is no space for real essences that would forbid certain connections between distinct existents.

However, the demand that our theory accommodates all possibilities, all the ways the world could be, does not justify the adoption of his Humean interpretation of the

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recombination principle. This is a substantial thesis about what is possible and needs to be argued for. No reason was presented for the rejection of the essentialist position. It is true that if objects have essences, some ways of recombining of certain parts are prohibited, but that does not create gaps in logical space, which would demand its rejection on theoretical grounds, but just creates a smaller logical space to begin with. Thus, this particular theoretical consideration, which was explicitly mentioned by Lewis, does not favour his Humean interpretation of recombination principle over the essentialist one, so there is no reason to give up my essentialist position.

Another advantage of the contextualist approach that is mentioned by Lewis is that it enables him to defend the identity of the statue and the lump, the mind and the brain, a person and her body. Namely, the fact that we attribute different essential properties to, say, the statue and the lump, is explained with the variation in context, thus the difference in essential properties is not an indication of multiple entities, but only one entity with multiplicity of counterpart relations. Take, for example, the case of Lumpl the lump that was created in the shape of a statue of Goliath. Lewis argues that Lumpl *is* Goliath, namely one and the same object. He further explains the appearance of there being two different objects with different essential properties by the fact that, when we describe it as a lump or refer to it as Lumpl, *it* has a counterpart in some other world that survives squashing; and when described as a statue or referred to as Goliath, *it* does not have a counterpart in some world that survives squashing. In other words, two different ways of *de re* representing, but only one object. However, there are other ways to solve the problem of coincident objects, and its importance is not so great to merit the rejection of the intuitive idea that objects have properties that are not on equal footing and that the distinction between the two is based solely in the objects themselves and not in any way determined by us.

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CHAPTER 5 KIT FINE'S DEFINITIONAL ACCOUNT

In Chapter 3 and 4, I argued against the conventionalist and the contextualist interpretation of the modal account respectively, choosing to understand the essential/accidental property distinction as grounded in objects themselves and the essentialist claims as context invariant. Now, in this chapter I will consider a rival to the standard modal account that is a realist approach to the distinction as well, but based on the model of definition. The concept of essence Fine is trying to capture is Aristotelian 'general' essence, as opposed to the 'individual' one, fixing that *what* makes it the object that it is, but not *which* particular object it is. Accordingly, essence provides the definition of an object, which enables its classification into kinds, but not, generally, its identification as this particular object.[70] Now, the essential properties of an object can be characterized as the ones that can be assigned to the object solely based on its definition. While Fine builds on the Aristotelian understanding of essence, his account is not meant to be its contemporized version, but an independent development of the basic idea.[71] The main idea behind the proposal is that the concept of essence is one of the basic concepts and thus cannot be explained in fundamentally different terms, but only clarified through a presentation of how it works.

My aim in this chapter is to determine whether Fine's account is indeed a better explanation than the modal one, so I will limit the discussion to the relevant aspects of the account. Thus, I will be especially interested in the connection between essence and metaphysical modality and the nature of real definition.

The structure of the chapter is as follows. First, I will describe two different grammatical forms that essentialist claims can take as well as the basic characteristics of Fine's account. Second, I will examine how this account deals with the examples that were

[70] Abstract objects, such as numbers and sets, do have uniquely identifying essences.
[71] For a contemporary development of Aristotelian essentialism, see Oderberg (2007).

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causing troubles for the modal account. Third, I will outline Fine's view on the connection between essence and metaphysical necessity. Fourth, I will present Fine's defence of the connection between essence and definition, based on an analogy with meaning.

5.1 Grammatical forms of essentialist claims and the basic definitional account

Fine distinguishes two different grammatical forms of essentialist claims: a predicational and a sentential form (Fine 1995a: 53-55). The first kind expresses the concept of essence by means of a predicate modifier. Take, for example, an essentialist claim 'Socrates essentially thinks'. Let 'thinks' be a predicate *P* and 'essentially' an expression of an essence *L*: the two together form the essentialist predicate 'essentially thinks' – *LP*. The essentialist claim is then written as [*LP*]*t* , where the complex essentialist predicate *LP* is applied to a term for Socrates, *t*.[72]

The second kind of grammatical form uses a sentential modifier, so that we first form the sentence 'Socrates thinks' (suppose the name 'Socrates' refers directly to Socrates to avoid issues of scope) and then prefix the operator 'It is true in virtue of the identity of Socrates that' to obtain the sentence 'It is true in virtue of the identity of Socrates that Socrates thinks'. Since Fine uses the terms 'identity' and 'essence' as expressing the same idea (Fine 1995a: p. 69, fn. 2), the sentential operator could also be expressed as 'It is true in virtue of Socrates's essence that', or more naturally as 'Socrates is essentially such that'. On the sentential approach, the symbol *L* for essence applies to a term *t* and a sentence Φ, and results in a sentence of a form $L_t\Phi$.[73]

The two forms are not simply notational variants – the predicational form is subtler and allows us to capture certain distinctions that the sentential form conflates into one. Take, for example, the following four claims:

[72] For many variants of the predicational approach, see Fine 1995a: p. 69, fn. 1.
[73] For variants on the sentential approach, see Fine 1995a: p. 69-70, fn. 3.

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(1) Socrates is essentially self-identical.

(2) Socrates is essentially identical to Socrates.

(3) Socrates is essentially such as to have Socrates identical to him.

(4) Socrates is essentially such as to have Socrates identical to Socrates.

According to the predicational approach, (1) ascribes essential self-identity ([$L\lambda x(x = x)$][74]) to Socrates, (2) and (3) ascribe two forms of essential identity to Socrates ([$L\lambda x$(x = Socrates)] and [$L\lambda x$(Socrates = x)]) to Socrates, and (4) ascribes the degenerate property of Socrates' self-identity (([$L\lambda x$(Socrates = Socrates)]) to Socrates. On the other hand, according to the sentential approach all four claims collapse into one single claim:

(5) It is true in virtue of the identity of Socrates that Socrates is identical to Socrates.

The claim is formally expressed as $L_{Socrates}$ (Socrates = Socrates) (Fine 1995a: 54).

The predicational approach also seems more fundamental than the sentential one. If essentialism is a view that objects have essential properties, then the essence of an object x is plausibly regarded as the collection (or class) of its essential properties. This idea is best captured by the predicational approach to the essentialist claims. Nevertheless, Fine decides to use the sentential approach because it is more convenient in terms of formulating and manipulating essentialist claims. On the predicational approach, the content of the claims must be constantly adjusted to the order and multiplicity of the arguments. For example, if we want to add Plato as an irrelevant argument to the claim that Socrates is essentially a man, we have to move from Socrates essentially having the property of being a man to Socrates and Plato essentially bearing a relation that holds between two objects when the first is a man. Whereas on the sentential approach, we can easily move from Socrates is a man as being true in virtue of the identity of Socrates to this same thing being true in virtue of the identities of Socrates and Plato. Besides, it can be shown that no essentialist information is lost because of

[74] 'λx(x = x)' signifies the abstract for the relation of self-identity.

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the lesser expressive subtlety of the sentential form.[75] Finally, the sentential approach makes possible a development of the possible worlds semantics for logic of essence, thus preserving advantages of the orthodox framework of modal logic (Fine 1995a: 55 and p. 71, fn. 7).

On the sentential approach, the essence of *x* can be understood as the class (or collection) of propositions that are true in virtue of what the object *x* is (Fine 1995a: 55 and 1994/95: 275). This class of propositions constitutes the object's real definition *D(x)*, which states *what the object is*.

It is important to note that Fine proposes the identification of essence with the class of propositions, thus making essence propositional in form. I will say a bit more about the propositional character of essence below. Here, let me just point out that the identification of essence with real definition does not constitute a proper analysis or even an explanation in fundamentally different terms. Essence of *x* is a 'form of definition' (Fine 1994/95: 273), namely the real definition *D(x)*, which is characterized as the collection of propositions true in virtue of what the object is. However, 'what the object is' denotes exactly its essence. This is no surprise, since Fine thinks that such basic concept as essence cannot be explained in fundamentally different terms, and that the best we can do is to offer some clarifications and show how the concept works (Fine 1994: 3 and 1995a: 53). In fact, the basic character of essence, which does not allow reduction or definition in terms of some other concept, is the reason why Fine rejects the modal account and turns to the definitional account, according to which the definition defines an object by stating its essence, but does not offer any analysis of the concept.

The task of improving the understanding of essence is taken up in 'Senses of Essence' (1995a), where several conceptions of essence and the ways in which they can be employed in explaining and defining various concepts are analyzed. A development of a separate logic of

[75] For more details on this, consult Fine 1995a. Basically, Fine shows that the truth values of 'impure' claims, such as (2), (3), and (4), can be determined on the basis of 'pure' claims, such as (1), and that the 'pure' form is equivalent to the sentential form, e.g. (1) is equivalent to (5) (p. 70-71, fn. 6).

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essence with a possible worlds semantics is the topic of 'The Logic of Essence' (1995b) and 'Semantics for the Logic of Essence' (2000). The way in which the definitional account can help us better understand essence is shortly presented in 'Essence and Modality' (1994) and 'Senses of Essence' (1995a), where essence and necessity on one hand are compared with meaning and analyticity on the other in order to justify the connection between essence and definition and the notion of relativized necessity.

5.2 The definitional account and the counterexamples to the modal account

As it was noted in Chapter 2, Fine concluded on the grounds of the analysis of chosen examples that the modal account is too broad to express the intended concept of essence. The diagnosis was that it lumps together the conditions of the object's identity and the consequences of its identity. Furthermore, the consequences of the object's identity cannot be excluded from the account without invoking the nature of the object in question. However, the nature of objects is what we were supposed to explain, thus it cannot be used in the explanation. For Fine, the main problem of the modal account is the fact that the metaphysically necessary truths are insensitive to the source of their necessity (i.e. the subjects of underlying essentialist truths). Logical form of *de re* modal statements is symmetric in its terms and *de re* necessary claim is taken to be true only if an object in the subject position necessarily fulfils the given condition, regardless whether this or some other object is the ground of it necessarily fulfilling the condition. On the other hand, an essential truth has its source in specific objects, for example, Socrates is essentially a human being is true in virtue of Socrates' essence; and this has to be somehow preserved in its explanation. In other words, the concept of essence is too refined to be captured with the concept of metaphysical necessity.

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The most persuasive example that Fine provides against the modal account is the one concerning Socrates and *singleton Socrates*. We tend to accept '*Singleton Socrates* essentially contains Socrates' as true since it is part of the singleton's essence to have the member that it has. On the other hand, 'Socrates is essentially a member of *singleton Socrates*' is intuitively false since it is not part of Socrates' essence to be a member of the singleton. Indeed, it is implausible to claim that in order to understand the essence of a person one should know to which sets he belongs. However, on the modal account both statements come out true since Socrates is necessarily a member of *singleton Socrates* as well as *singleton Socrates* necessarily contains Socrates, if they exist.

On the definitional account, the essentialist asymmetry is preserved. *Singleton Socrates* is defined as a set whose sole member is Socrates, and thus *singleton Socrates* essentially contains Socrates. Socrates' definition, on the other hand, does not mention his membership in *singleton Socrates*; therefore, it is not the case that Socrates is essentially a member of *singleton Socrates*. Hence, the relationship between the singleton and Socrates is essential to the singleton only.

The corresponding essentialist claims are formulated in the logic of essence by attaching the essentialist operator 'it is true in virtue of the identity of *x* that' – $\Box_x$ – to the sentence, *A*.[76] Take the sentence *A* to be 'Socrates is a member of *singleton Socrates*', then $\Box_{\{s\}}A$ means that *A* is true in virtue of the identity of *singleton Socrates*, and conveys that *singleton Socrates* has essentially Socrates as a member. Conversely, $\Box_s A$ means that *A* is true in virtue of the identity of Socrates and conveys that Socrates is essentially a member of *singleton Socrates*.

[76] Given that the understanding of the basic elements suffices for my purposes, I will not provide a detailed summary of the logic of essence, developed in Fine 1995b and 2000. Let me just mention that the language, besides an essentialist operator symbol and formulae expressing the idea that *A* is true in virtue of the identity of *x*, contains special 1-place rigid predicates and a 2-place dependence predicate. The logic is an extension of first-order logic (including the abstraction operator λ) with new axioms and rules for new predicates and formulae, and with the possible worlds semantics.

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The proposed formalization of essentialist statements succeeds in tracking the source of their truths because the essentialist operator picks out the subjects of essentialist claims. Fine sometimes calls it relativized or indexed operator. An intended meaning of the statement of the form $\Box_x A$ is that *A* is true in virtue of the identity of *x*, and it is only taken to be true when each of the objects mentioned in *A* is involved in the nature of *x*.[77] For example, it is not taken to be true in virtue of the number 2 that Socrates = Socrates. Similarly, $\Box_{\{s\}}A$ is true since Socrates' membership is part of the singleton's essence, while it is not part of the Socrates' essence, thus falsifying $\Box_s A$ (Fine 1995b: 241-2 and 2000: 543).

It should be noted that the notion of a proposition's being true in virtue of the identity of *x* is not signifying a property of propositions, but a relativized property. Given any proposition and any objects (which may or may not be subjects of the proposition), we ask whether it is true in virtue of the identity of those objects (Fine 1994: 15, fn. 2). Moreover, the relation between an object and a proposition is not analyzable and this is reflected in the essentialist operator. That is to say, although the notation 'it is true in virtue of the identity of *x* that' might suggests 'an analysis of the operator into the notions of the identity of an object and of a proposition being true in virtue of the identity of an object', Fine insists that the operator is a primitive and is not to be further analysed. Fine's insistence on the primitiveness of the essentialist operator corresponds with his view that essence cannot be explained in any fundamentally different terms, only understood better through the analysis of its workings, and here he relies on the propositional construal of essence. In Fine's words, 'we should understand the identity or being of the object in terms of the propositions rendered true by its identity' (Fine 1994/95: 273). Thus, the identity or essence of an object is given by a

[77] In terms of possible worlds semantics, a statement is true in virtue of the nature of certain objects if it is true in any world compatible with the nature of those objects. Under the assumption that a world is compatible with the nature of all and only those objects that it contains, then the condition is that it should be true in all those worlds that contain those objects. The presence of an object in a world guarantees its possibility, not existence (Fine 2000).

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privileged collection of true propositions, namely, a collection of propositions that are true in virtue of the object's identity.

In conclusion, let us take a look at the other two examples causing troubles to the modal account. One is the problem of the necessary truths that come out as essential to every object. For example, it is necessary that Socrates is such that there are infinitely many prime numbers, if he exists. Thus, it is essential to Socrates that there are infinitely many prime numbers. This is not a problem for the definitional account since it is not part of Socrates' essence that there are infinitely many prime numbers. Alternatively, this proposition is not a member of the collection of properties that are true in virtue of Socrates's identity. The other problem was plaguing only the existence-conditioned version, according to which a property *F* is an essential property of an object *x* if and only if it is necessary that the object *x* has the property *F* if *x* exists. Given that no object could exist but lack existence, on this account, existence is an essential property of every object. Since on the definitional account, existence is essential to an object only if it is part of the object's essence, not every object is essentially existent. Again, no problem arises.

5.3 The relation between essence and metaphysical necessity

Fine considers metaphysical necessity as a special case of essence. Although essence or identity of objects is not a modal notion, it is associated with necessity: if *x* is essentially *F*, then it is necessarily true that *x* is *F*. However, the resulting necessary truth is not necessary *simpliciter*, since it is true in virtue of the identity of *x* and thus its necessity originates in *x*, namely, in the subject of the underlying essentialist claim. Accordingly, we can imagine an object *x* as giving rise to its own domain of necessary truths that flow from its essence (Fine 1994: 8-9).

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According to this understanding, every object and every class of objects have their own domain of necessary truths and the obvious next step is to take metaphysical necessity as a domain of a certain class of objects, but which one? Since metaphysical necessity is characterized as insensitive to the source of its truth, the right answer is the class of all objects. As Fine puts it, 'all objects are treated equally as possible grounds of necessary truth; they are all grist to the necessitarian mill' (Fine 1994: 9). The metaphysically necessary truths are thus defined as 'the propositions which are true in virtue of the nature of all objects whatever' (ibid.). Other familiar concepts of necessity are defined in a similar way as restricted forms of metaphysical necessity. For example, the conceptual necessities are taken to be the propositions that are true in virtue of the nature of all concepts, the logical necessities as the propositions true in virtue of all logical concepts, and mathematical necessities as the propositions true in virtue of the characteristic concepts and objects of mathematics (ibid: 9-10).[78]

Instead of essence being explained in terms of *de re* metaphysical necessity, Fine proposes to explain metaphysical necessity in terms of essence. Metaphysical necessities are rooted in the identity of objects; more specifically, their truth and necessity is ensured by the nature or identity of some object involved in them. Recently, the view that facts about essences are fundamental and that they underlie and explain *de re* necessities and not the other way around has gained currency. For example, Bob Hale bases the fundamental class of necessities in the essential natures of things, while the rest of necessities are explained by reference to the necessities in the first class (Hale 2002). Thus, he argues that

 (Vixens are female foxes) because being a vixen just *is*, or consists in, being a female fox (p. 312).

[78] For further discussion of the restricted forms of metaphysical necessity, see also Fine 2002: 257-8. The main thesis in the article is that there are three main and irreducible forms of necessity: the metaphysical, the natural, and the normative necessity.

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Lowe insists that the notion of essence is prior to that of metaphysical necessity and that we should be guided by the logic of essence in our views about the logic of necessity (Lowe 2007: 290). In Christopher Peacocke's theory of necessity (Peacocke 1999: Ch 4), what is possible is constrained with the 'Principles of Possibility', which require that for something to be a genuine possibility, it must respect what makes something what it is. For example, the main principle at the level of concepts is the Modal Extension Principle:

(MEP) An assignment *s* is admissible only if: for any concept *C*, the semantic value of *C* according to *s* is the result of applying the same rule as is applied in the determination of the actual semantic value of *C* (Peacocke 1999:136).

At the level of objects, properties, and relations, the constitutive principles state that an assignment is admissible only if it respects what is constitutive of the objects, properties, and relations that it mentions. For example, the constitutive principle concerning the *fundamental kind* of an object states:

(FKP): If *P* is a property that is an object *x*'s fundamental kind, then an assignment is inadmissible if it counts the proposition *x* is *P* as false (p. 145).

Similarly, Wiggins's theory of individuation is developed in nonmodal terms, but has modal consequences (Wiggins 2001).

The main idea behind these various proposals is basically the same. Modality has to be somehow anchored in actuality and that this anchor is the constitutive nature of objects or their essences: '□*p* because *q*'. The opponents obviously reject the possibility that what is the case grounds what must be the case. Otherwise, they say that essentialist truth may be a source of the proposition's truth but not of its modal status. Something else has to be added to guarantee the necessity of metaphysically necessary truths; that is, something that prevents objects having other natures. The mere fact that their natures are what they are is not enough.

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The other possibility is that essences are modal themselves, but then they cannot have a role in the explanation of metaphysical necessity.

In the case of the definitional account, the issue of the modal character of essences and their modal import has been questioned as well. For instance, Yablo presents an example, which could imply that not all properties that come out essential on the definitional account are necessary as well:

> Suppose I make a statue out of the one hunk of clay in my studio. Then in defining the statue – in explaining what it is – I will say that it was created out of this hunk of clay. I will say this despite the fact that a distinct but sufficiently overlapping hunk would have resulted in the very same statue. (In explaining what the statue *is*, why would I mention the various objects it *could* have been fashioned from?) (Yablo 1998: 421)

In the example, the definition of the statue states that it originates in this hunk of clay, which makes the property of originating in this hunk of clay essential to the statue. However, this property is not a necessary property of the statue since it could have been made out of a distinct but sufficiently overlapping hunk of clay. Thus, the connection between essence and necessity seems to be broken. The property of originating in this hunk of clay is an essential property of the statue, but not its necessary property. Accordingly, we can distinguish between definitionally essential properties and modally essential properties.

The disparity between the two kinds of essential properties cannot be simply solved by insisting that the statue could have been made only out of this very hunk of clay. The issue here is not the specific question on whether the statue could or could not have been made from a slightly different hunk of clay. The problem is general, and not limited to this example and the different opinions on which properties are necessary to the object in question. It concerns the nature of the real definition, more specifically, what counts as a real definition of an object. In the example, the definition of the statue states the factors actually constituting its identity, or, as Yablo puts it, 'the properties that *x* actually possesses by which it succeeds in

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being *x*' (Yablo 1998: 421). As such, it is nonmodal in character, and thus cannot be a source of necessary truths.

The statue example shows that there are two plausible interpretations of the conditions of identity; on one hand they are understood as 'the necessary prerequisites of identity of *x*' and on the other, as 'the factors actually constituting *x*'s identity'. This, in turn, implies two different definitional accounts of essence and essential properties. The first variant of the definitional account, according to which the definition of *x* states what *x has* to be in order to be *x*, has a modal component, hence ensuring that every property essential to *x* is also necessary and making the explanation of metaphysical necessity in terms of essence possible. The other variant states the factors actually constituting *x*'s identity, and these are not automatically the object's necessary properties.

Yablo only mentions two possible interpretations of the real definition and does not draw any conclusions in connection with Fine's project of grounding metaphysical necessity in essences. For this to work, Fine obviously needs the conditions of identity to be the necessary prerequisites of identity and not actual factors. Now, does this not mean that the real definition must be modal and consequently essence too? That is to say, more accurately, the explanation of the real definition of *x* should be stated as follows. The real definition of *x* consists only of those propositions that are true in virtue of the necessary prerequisites of the identity of *x*. In turn, the necessary prerequisites should be modally explained, for example, as the minimum identity conditions of *x* such that it is not possible that any one of them is not satisfied and *x* exists. It could be argued that the thus stated definition contradicts Fine's claim that essence is not a modal notion.

Before answering this objection, one should first point out that Fine characterizes the concept of general essence and not of individual essence. Yet, Yablo's example is about the statue being originally made from this very hunk of clay and the metaphysical possibility of

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its being made from a distinct but sufficiently overlapping hunk of clay, which is an example from the debate on individual essences. Fine is trying to elucidate the definition that tells us what object it is and not which particular object it is. Accordingly, he would accept as the real definition of the statue only the proposition that the statue is composed of clay and then there is less pressure to admit that the definition could also state only the factors actually constituting *x*'s identity. However, we should not close off the possibility of the extension of the definitional to individual essences, so the objection should be considered more generally.

To the objection that the 'appropriate' kind of real definition is modal since it states 'the necessary prerequisites of identity of *x*', Fine would simply answer that the real definition of an object *x* consists of propositions that are true in virtue of the identity of *x*. These propositions are nonmodal, but they do have modal consequences. Indeed, he never said that essence is not associated with modal features, he just denied that it is itself a modal notion and could be analysed in modal terms. In my opinion, this reply successfully fends off the objection that the real definition has to be understood modally.

On the other hand, the concept of the real definition understood as stating the factors actually constituting *x*'s identity is in agreement with the view according to which what is constitutive of an object does not have a modal import. Such definition, as Yablo points out, is not without merit:

> Deriving from this particular hunk of clay may not be required for identity with the statue, but it seems still to be essential in the constitutive sense. To have derived from the given clay is part of what it is, even if not part of what it had to be, to be that statue (Yablo 1998: 421).

This definition is not suited for 'tracking' the object through many counterfactual changes, but it is better suited than the definition stating the necessary prerequisites for explaining what the object is in the actual world, since we are focusing on what makes it this *one* object,

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different from all the others. Moreover, it is better suited for 'tracking' the object through time.

The non-modal understanding of the identity plays a role in Almog's theory of a primal truth, which is a 'truth in actuality solely in virtue of what the subject is' (Almog 1991: 226).[79] He distinguishes between conditions of existence and modes of existence of *x*, or, in other words, between traits of *x* pertaining to what (kind of thing) it is and traits that merely describe how it is. The conditions of existence are those 'traits the possession of which the subject's actual existence is conditional on' and the modes of existence are those 'traits the possession of which is conditional on that subject's actual existence' (ibid.: 230). He further identifies the conditions of existence of *x* with the primal traits of *x*, and they correspond closely to what I have called the factors actually constituting *x*'s identity.[80] One important difference is that according to Almog's account the object's actual existence is considered its primal trait. Anyhow, Almog explicitly argues that the notion of a condition of existence should be distinguished from the modal understanding of essence:

> [C]onditions of existence are meant to resist counteractual-subtraction experiments, not refutation in arbitrary counterfactual worlds; they state, not what it takes for *x* to exist in an arbitrary possible world, but what is a *sine qua non* for *x*'s existence in the actual world (ibid.: 230).

Clearly, Almog does not reject only that the condition of existence is a modal notion, but also that it has modal consequences (at least not always). Furthermore, he points out that the notion of a condition of existence is amiable to 'a traditional use in philosophy of the term "essence" that is modal-free' (Almog 2003: p. 198, fn. 2). He also believes that in the ordinary language 'essential' alludes, 'in the actual world and without mention of

[79] Almog develops the theory of primal truths in Almog 1991, and on the conclusions reached there bases the interpretation of the predicative modal fact in Almog 1996. For further development of his view on the connections among existence, logic, and truth, see Almog 2003.

[80] Almog would not call them so, because by the identity conditions of *x*, he understands the necessary and sufficient conditions for its individuation as a unique object; and these are expressed in the real definition of *x* (Almog 1991: 232). On our understanding, the real definition corresponds to general essence.

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counterfactual possibilities, to fundamental-constitutive traits, specifying *what* (kind of) item is involved' (ibid: 198, fn. 2).

Now, if we accept the possibility of a com[lately modal-free notion of the identity of an object, then how do we know that a certain real definition is stating the necessary prerequisites of *x*'s identity and not only actual factors constituting it. This is clearly not a metaphysical objection to the definitional account, but the epistemological worry. The best strategy seems to be to take the definition stating the actual factors constituting the identity of *x* as the preliminary step in acquiring the 'correct' real definition of *x*. Then, by employing modal reasoning, we exclude those actual factors of *x*'s identity that are not its necessary prerequisites. For instance, take the definition of the statue as originating in this particular hunk of clay. We consider the ways things could have gone differently in the making of this statue, concluding that it could have been created from a number of distinct but sufficiently overlapping hunks of clay, but could not have been made of entirely different hunk of clay, or anything else but clay, and adjust its definition accordingly, thus finally getting at the correct real definition stating only the necessary prerequisites of the statue's identity.

However, the use of modal reasoning in the acquiring of the real definition could be considered as a sign that essence is a modal notion after all. However, one has to distinguish between conceptual and epistemological dependence. According to Fine, the essence of *x* consists of the propositions that are true in virtue of the identity of *x*, no mention of modality. The identity conditions of *x* are indeed the necessary prerequisites and thus *x* grounds a certain class of metaphysical necessities that are true in virtue of its nature. Thus, metaphysical necessity has no part in the explanation of essence; on the contrary, it is metaphysically dependent on it since the metaphysically necessary truth is grounded in truths about essence. Moreover, since in the analysis of the concept of metaphysical necessity essence is invoked, metaphysical necessity is also conceptually dependent on essence.

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However, this does not preclude the epistemological route to proceed in other direction. It is often the case that what is ontologically more basic is epistemologically more removed from us. In this case, we first acquire knowledge of the actual factors constituting *x*'s identity and then, out of these discern the inner core of the necessary prerequisites of the identity of *x*. Therefore, it would be no problem for the definitional account if we had to accept that modal reasoning is unavoidably employed in acquiring the knowledge of essences.

Defence of the nonmodal character of essence along these lines seems plausible, although further elaboration is needed. The next important issue is a defence of the concept of real definition itself. As Fine himself mentions in his short historical overview in Fine (1994), the idea of real definition was almost completely abandoned after a very serious empiricist criticism (p. 3), especially that of Locke. Since then, it became common to believe that the real definition makes no sense, that is, that objects cannot be defined. Fine does not address this important issue explicitly, but only through the analogy of essence with meaning.

5.4 Comparison with meaning and analyticity

The strategy is to convince us of the intelligibility of the definitional account of essence by comparing it to the less contentious definitional account of meaning. Meanings are stated in definitions; therefore, essences can be stated in definitions as well. In fact, the activity of specifying the meaning of words is one example of the activity of stating the essence of objects.

First, we consider the connection between meaning and analyticity. An analytic truth is usually understood as a sentence true in virtue of the meaning of terms. If the notion of a sentence being true in virtue of the meaning of all terms is accepted as intelligible, then the notion of a sentence being true in virtue of the meaning of certain terms as opposed to others should also be accepted. Take 'all bachelors are unmarried men'. Plausibly, this sentence is

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true in virtue of the meaning of the term ‘bachelor’, but not in virtue of the meanings of ‘unmarried’ and ‘man’. Thus, we acquire the concept of relativized analyticity. Under the traditional interpretation of analyticity according to which analytic truths are the logical consequences of the totality of definitions, the relativizing of analyticity suggests itself even more. The sentence true in virtue of the meanings of certain selected terms can be taken to be the logical consequence of the definitions of those terms. For example, the sentence ‘all bachelors are unmarried men’ is analytic in ‘bachelor’ since it follows from the definition of ‘bachelor’ as ‘unmarried man’, but not in ‘unmarried’ and ‘man’, since it does not follow from their definitions (Fine 1994: 10).

Second, we apply these findings to the case of essence and necessity. In parallel with the analytic truth, a necessary truth is taken to be a proposition true in virtue of the identity of all objects. However, if the relativized analyticity is intelligible, then the relativized form of necessity is intelligible as well. Plausibly, the relativized analytic truth is considered a sentence true in virtue of certain terms as opposed to others. Similarly, the relativized form of necessity is a proposition true in virtue of the identity of certain objects as opposed to others.

Third, we consider the role of definition in both cases. We define a term by giving its meaning; we define an object by stating its essence. In the first case, we get a sentence, which is true in virtue of the meaning of the term; in the second case, a proposition, which is true in virtue of the essence/identity of the object. Furthermore, argues Fine, the two cases are not only parallel, but basically the same. In attempting to define a term, we are attempting to specify its meaning. However, not every specification would do. As Fine points out, we cannot define ‘bachelor’ as ‘the most often referred to term in the recent philosophical literature on analyticity’. No, says Fine, ‘the specification should make clear what the meaning (essentially) is; it should provide us, that is to say, with some account of the meaning’s essence’. This means that in defining a term, we are providing an essence of its

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meaning. Therefore, the activity of defining a term, or rather of the corresponding concept, is a special case of the activity of defining an object, namely, stating what an object is (Fine 1994: 12-14).

To those who object that there is a huge gap between saying what a meaning of a certain word or a concept is and saying what an object is, Fine's response is that he cannot see what this supposed difference is:

> The difficulty with this position is to see what is so special about concepts. It is granted that the concept bachelor may be defined as unmarried man; this definition states, in the significant essentialist sense, what the concept *is*. But then why is it not equally meaningful to define a particular set in terms of its members or to define a particular molecule of water in terms of its atomic constituents? Why is the one any more a definition or account of what the object is than the others? (Fine 1994: 14)

Fine has a point. If you agree that in the definition of a concept we state what it is, its essence, then you have already conceded that one kind of objects can be defined. However, if you accept that the idea of defining an object is intelligible in this case, you must explain why you reject the possibility of definition in the case of other objects. The obvious move is to point out that meanings and concepts as well as mathematical objects are much easier to define than the material objects due to the more complex nature of the latter. However, this is an epistemological point, namely, how can we know the essence of things? How can this complexity be captured in an explicit definition? However, what we are after is rather the intelligibility of the idea of defining an object in metaphysical terms. Is there something in the nature of these other objects that precludes the possibility of them being defined? Again, the first thought that comes to mind is that it is possible to define meanings and concepts because of their simple structure, while this is impossible in the case of the complex material objects. But this seems like a claim that it is impossible to give a definition that would succeed in picking one and only one object out of many. However, the real definition of an object is not supposed to state the necessary and sufficient conditions of its identity, but only the necessary

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ones. They are not supposed to be uniquely identifying – marking the object off from any other object –, but just classifying – marking it off from the objects of other kinds. Overall, Fine did seem to manage to put the burden of proof on his opponent who now has to explain why the idea of identifying objects should be rejected. For example, one could question the claim that meanings or concepts can be defined, although I find it plausible.

Anyway, in my opinion, the concept of real definition does not play such an important role in the clarification of essence as it would first appear. Instead of saying that the real definition of *x* is a proposition, which is true in virtue of the identity of *x*, one can simply say that the essence of *x* is the class of propositions that are true in virtue of what the object is. In this way, the ontologically independent character of essence comes to the fore, while, the use of the word 'definition', despite 'real' being attached to it, has still a 'linguistic' ring to it and leaves the impression that essence is somehow dependent on us. At least I constantly have this problem. Most of the time, Fine himself, only talks of the propositional character of essence and in the logic of essence the definition has no real role. Certainly, the most important feature of Fine's account is not the connection of essence with definition, but the general or constitutive character of essence that cannot be explained solely in modal terms.

To conclude, I think that Fine can successfully defend the nonmodal character of essence and its priority over necessity. I find most persuasive the idea that essence is ontologically basic entity and its concept cannot be analysed in fundamentally different terms. I leave the discussion of the logic of essence for some other time, but the analysis in terms of possible worlds promises to preserve all the technical advantages of the modal account, while avoiding its pitfalls.

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CHAPTER 6 THE IMPROVED MODAL ACCOUNT

Kit Fine presented the problems of the standard modal account and identified as the cause of all these problems the fact that the concept of metaphysical necessity is too robust to capture the source-sensitive concept of essence adequately. Thus, the modal account counts the conditions of *x*'s identity as well as the consequences of its identity as essential to *x*. Moreover, Fine argued that no modal account can solve this problem without becoming circular, for the consequences of *x*'s identity can be excluded only by invoking *x*'s nature. His conclusion, and probably a starting point, was that the concept of essence is too basic concept to allow analysis in fundamentally different terms.

In recent years, the discussion on Fine's counterexamples was quite lively, and while certain authors did not find his examples terribly convincing,[81] the others did, but argued that the revised modal account can be made to work.[82] In this chapter, I will present Edward Zalta's analysis of the counterexamples within the quantified modal logic and the theory of abstract objects.

Zalta's proposal for the characterization of the 'essential property' is greatly influenced with his views on the correct interpretation of the quantified modal logic and the fundamentally different nature of abstract and ordinary objects. Therefore, his proposal cannot be properly presented without presentation of the simplest quantified modal logic (section 6.1) and the theory of abstract objects (section 6.2). Then I outline his modal definitions of 'essential' for ordinary objects (section 6.3), and the characterization of 'essential' for abstract objects (section 6.4), and the way in which it help solving Fine's counterexamples to the modal account. Afterwards, I express some doubts about his abstract theory. In particular, I discuss the thesis that abstract objects are not essentially abstract (section 6.5). Then, I try to

[81] For example, see Gorman 2005.
[82] For example, see Correia 2006, Zalta 2006.

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get a clearer idea on the nature of the contingently nonconcrete objects (6.6). Here I rely heavily on Timothy Williamson's ideas on the merely possible physical objects (Williamson 2002).[83]

6.1 The actualist interpretation of the simplest quantified modal logic and the new characterization of the essential/accidental property distinction

The main characteristics of the simplest quantified modal logic are unrestricted quantifiers and a fixed domain of objects, whereas in Kripke models, quantifiers are restricted and each world has its own distinct domain of individuals.[84] Many actualists reject the simplest quantified modal logic because it validates certain formulas, such as the Barcan Formula (BF), its Converse (CBF), and the Necessary Existence Principle (NE), which seem to have some undesirable consequences. They are formulized as follows:

(BF) $\forall x \Box \varphi \rightarrow \Box \forall x \varphi$ or $\Diamond \exists x \varphi \rightarrow \exists x \Diamond \varphi$

(CBF) $\Box \forall x \varphi \rightarrow \forall x \Box \varphi$ or $\exists x \Diamond \varphi \rightarrow \Diamond \exists x \varphi$

(NE) $\forall x \Box \exists y\ y = x$

The consequences of the Barcan Formula are better seen when it is stated in the logically equivalent form with diamonds. Then it can be read: if there could have been something that was such and such, then there is something that could have been such and such. The Converse Barcan Formula can be read: if there is something that could have been such and such, then there could have been something that was such and such. Together, BF and BFC imply that 'everything' commutes with 'necessarily' and 'something' with 'possibly'.

Now consider the modal claim 'There could have been aliens'. If this is taken to be true, then BF also guarantees that there is something that could have been an alien. This seems to assert the existence of a possible alien: *x* exists and is possibly an alien. However,

[83] For a detailed presentation of the underlying logical framework, see Williamson 1998, 1999.
[84] In the presentation of the simplest quantified modal logic, I follow Linsky and Zalta 1994 and 1996, Williamson 1998, 1999, and 2002, and Menzel 2008.

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this is problematic for actualists who maintain that everything that exists (i.e., everything there is) is actual. What amongst the actually existing individuals could plausibly be identified as a possible alien? The difficulty becomes even more obvious if we consider the case of a person *a* who does not have any sisters. It seems plausible that *a* could have a sister, but which existing, i.e. actual, object is possibly *a*'s sister? If one endorses the essentiality of origin thesis, then none of the actually existing women could have been *b*'s sister or any other concrete object. Similarly, no abstract object can play this role since what is abstract is essentially abstract and could not have been concrete, namely *a*'s sister in some possible world. Actualists cannot countenance *possibilia*, i.e. merely possible objects; therefore, they conclude that BF must be false. Next consider NE: $\forall x \Box \exists y\ y = x$. Actualists read it as follows: for any object *x*, necessarily something exists that is identical with *x*. For most actualists '$\exists y\ y = x$' is the definition of what it is for an object to exist. Consequently, NE is interpreted as saying that everything necessarily exists. But surely, some objects might have not existed. Therefore, NE must be false. Finally, consider BFC. Since it implies NE in quantified modal logic, it is immediately suspect and declared false.

The possibilist implications of the simplest quantified modal logic led actualists to embrace Kripke models with varying domains that invalidate the abovementioned formulae. However, since every possible world must be associated with the domain of quantification containing just those objects that exist in it, semantics gets more complicated. Moreover, the offending formulae are derivable in the simplest axiomatizations, so actualists need to complicate the proof theory in order to block their derivation. Thus, the unwanted formulae are banished, but the price is the loss of simplicity.

Recently, Linsky and Zalta argued that the simplest quantified modal logic could be interpreted in actualist terms if a more sophisticated distinction between abstract and concrete

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is introduced (Linsky & Zalta 1994).[85] To see what the view is about, take again the example of aliens. BF supposedly committed us to the existence of a merely possible alien, because there is nothing in the actual world that could be an alien in some other world. Now, it is pointed out that in fact BF only requires that there is something that could have been an alien, and not that some concrete object in the actual world is possibly an alien. The 'concrete' is understood to mean 'spatiotemporal'. Therefore, this something in the actual world that is possibly an alien could be a nonconcrete object that is an alien, hence concrete, in some possible world. Thus, this nonconcrete object in the actual world is possibly an alien. In this way, *possibilia* are replaced with contingently nonconcrete objects: nonconcrete in our world and concrete in some other worlds. As such, they exist and they are actual.

The new distinction between abstract and concrete demands the change in the view of the nature of concrete objects. On the usual understanding the difference between abstract and concrete is categorical. In other words, whatever is abstract or concrete is essentially so. On the new understanding, there are objects – namely the contingently nonconcrete objects – that are nonconcrete in the actual world and concrete, i.e. situated in space and time, in some possible worlds. On the other hand, the ordinary objects are concrete in the actual world, but not concrete in some possible worlds.

The concept of contingency is changed accordingly. The contingency of objects, usually explained in terms of existence – *x* exists in some worlds, but not in some other worlds –, is now explained in terms of being concrete – *x* is concrete in some worlds and nonconcrete in others, while *x* exists in every world. In this way, every object exists necessarily. This simplifies the theory greatly, since, as Zalta points out, objects do not 'disappear from the range of quantifiers whenever they disappear from the physical space' (Zalta 2006: 667).

[85] A similar view is defended by Williamson. However, he prefers not to speak about it in terms of actualism and possibilism, which are according to him obscure doctrines that do not help in disambiguation of the crucial term 'exist' (Williamson 1998: 259).

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In the actual world, the contingently nonconcrete objects have the same properties that are usually contributed to the ordinary abstract objects, such as numbers, sets; namely, being nonphysical, nonspatiotemporal, lacking in shape, size, texture, and so on. However, they do not possess the same modal properties as the (essentially) abstract objects do (Linsky & Zalta 1994: 446). On the other hand, the contingently nonconcrete objects are more similar *in kind* to the ordinary objects than to (essentially) abstract objects since they are both concrete in some possible worlds and nonconcrete in others, the only difference being that ordinary objects are concrete in the actual world and contingently nonconcrete objects are not. Therefore, the contingently nonconcrete objects together with the ordinary objects form the class of possibly concrete objects (ibid: 447).

The view demands a change in the conception of an 'essential' property as well. On the existence-conditioned modal characterization, a property *F* is an essential property of an object *x* if and only if it is necessary that the object *x* has the property *F* if *x* exists. The same is expressed in terms of possible worlds as follows: a property *F* is an essential property of an object *x* if and only if *x* has *F* in all possible worlds in which *x* exists. Now, according to the new actualism, every object exists in every possible world, so the condition 'if *x* exists' becomes redundant. In the old account, the condition 'if *x* exists' was supposed to account for the contingent existence of ordinary material objects, hence in the new actualism, the condition is replaced with 'if *x* is concrete'. Subsequently, the characterization of an essential property is as follows:

(1) A property *F* is an essential property of an object *x* if and only if it is necessary that the object *x* has the property *F* if *x* is concrete;

In terms of possible worlds, this is expressed as:

(1a) A property *F* is an essential property of an object *x* if and only if *x* has *F* in all possible worlds in which *x* is concrete.

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For example, on this characterization, Socrates is essentially human because he is human in every possible world in which he is concrete (Linsky & Zalta 1994: 447).

Clearly, this characterization is appropriate only for possibly concrete objects. Given that (ordinary) abstract objects are necessarily nonconcrete, on this characterization they do not have any essential property. Therefore, Linsky and Zalta introduce a separate characterization for the necessary abstract objects:

(2) If *x* is necessarily abstract, then a property *F* is an essential property of an object *x* if and only if it is necessary that *x* exemplifies *F*.

For example, to say that a number is essentially not a building is to say that the number necessarily fails to be a building. They believe that the introduction of two notions of essential property is an advantage, since on the traditional view, the condition 'if *x* exists' was redundant in the case of necessarily abstract objects and thus did not efficiently characterize essential properties of abstract objects (p. 447).

In Linsky and Zalta 1994 and 1996, the different characterizations of the essential properties of concrete objects on one hand, and of the essential properties of abstract objects on the other, are stated, but no further explanation is provided. The characterization of 'essential property' for abstract objects is considerably different in Zalta 2006, because of the introduction of the difference between exemplifying and encoding of a property.

Before turning to this paper, I would like to say a little on the characterization of the property of being concrete. The ordinary objects of our world, such as tables, horses, people, are contingently concrete, so one would expect them to be also accidentally concrete. However, on the proposed characterization, they are essentially concrete, since they are concrete in every world in which they are concrete. Thus, they are contingently concrete and essentially concrete. In their account then, 'essential' is not interchangeable with 'necessary',

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and ‘accidental’ is not interchangeable with ‘contingent’, as it is otherwise the habit in modal accounts (Linsky & Zalta 1996: 11).

6.2 Zalta’s theory of abstract objects

The theory of abstract objects *O* quantifies over a domain of objects consisting of abstract and ordinary objects and a domain of *n*-place relations.[86] It is expressed in a second-order modal language with variables and constants for individuals as well as for *n*-place relations ($n \geq 0$). The abstract objects exemplify and encode properties and hence, in addition to the usual atomic formulae of the form ‘$F^n x_1 \ldots x_n$’, expressing the idea of an object exemplifying a property *F*, we need the formulae of the form ‘xF^1’, expressing the idea that an (abstract) object *x encodes* a property *F*.

The *encoded* properties of an abstract object *x* are those of its properties which determine it, that is to say, are part of its nature and govern the conception of *x*. For example, the properties goldenness and mountainhood determine an abstract object that does not exemplify either of them. Similarly, Sherlock Holmes, which is an abstract object, encodes such properties as being a detective, living in London, having Dr. Watson as a friend, but exemplifies such properties as being fictional, being a popular fictional character as well as properties that objects have because of being abstract, for example, not being spatiotemporal. And mathematical objects encode the mathematical properties attributed to them in their respective theories and exemplify properties such as being abstract, not having mass, and so on.

The principal axiom for abstract objects is a *comprehension principle* asserting the conditions under which abstract objects exist and encode properties: for any expressible condition ϕ that is satisfiable (in Tarski’s sense) by properties *F*, there exists an abstract object

[86] I follow Zalta’s overview from Zalta 2006. For details, see Zalta 1983, 1988, and 1993.

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that encodes exactly the properties F satisfying ϕ. Identity is not primitive, and language contains rigid definite descriptions (complex object terms) and λ-expressions (complex relation terms); to avoid paradox, the latter are not allowed to contain encoding subformulae (Zalta 2006: 663-4).

Now, the domain of objects is divided into two mutually exclusive and jointly exhaustive subdomains – the subdomain of *abstract objects* and the subdomain of *ordinary objects*, consisting of concrete and contingently nonconcrete objects. We define the properties of being ordinary, '$O!$', and being abstract, '$A!$' by using a 1-place relation $E!$x, which reads as 'x is concrete':

$$O! =_{\mathrm{df}} [\lambda x\, \Diamond E!x]$$

$$A! =_{\mathrm{df}} [\lambda x\, \neg\Diamond E!x]$$

Thus, ordinary objects are defined as possibly concrete and abstract objects as a kind of thing that could not be concrete. As a result, the identity has to be defined separately for the two subdomains. Identity for ordinary objects, $=_E$, is defined as:

$$x =_E y \;=_{\mathrm{df}} O!x \;\&\; O!y \;\&\; \Box\forall F(Fx \equiv Fy)$$

Objects x and y are *identical*$_E$ whenever both x and y are ordinary objects that necessarily exemplify the same properties. Identity for abstract objects and a more general notion of *identity*, =, is defined disjunctively:

$$x = y \;=_{\mathrm{df}} x =_E y \vee A!x \;\&\; A!y \;\&\; \Box\forall F(xF \equiv yF)$$

Thus, abstract objects are identical whenever they necessarily encode the same properties. Identity for n-place relations is also definable, for example, the *property identity* is defined as

$$F = G =_{\mathrm{df}} \Box\forall x(xF \equiv yG)$$ (ibid: 664).

The system O is governed by classical S5 quantified modal logic, including the first- and second-order Barcan formulas, with added axioms governing rigid definite descriptions and λ-expressions (ibid: 665). Another added axiom handles the modal logic of encoding:

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$\Diamond xF \rightarrow \Box xF$

It ensures that each abstract object has a nature that does not vary from world to world. Finally, we add the Substitution of Identicals Axiom: $\alpha = \alpha$ (ibid: 666).

The basic features of the simplest quantified modal logic were already mentioned in the previous section. Here, let me just add that since the logic is classical, abstract and ordinary objects exemplify a complete complement of properties in every world, while an abstract object might be incomplete with respect to its encoded properties.

Additionally, the system *O* has two proper axioms:

$O!x \rightarrow \Box\neg\exists F\, xF$

$\exists x(A!x \,\&\, \forall F(xF \equiv \phi))$, where ϕ has no free *x*s.

The first says that ordinary objects necessarily fail to encode properties. The second is the abovementioned comprehension schema for abstract objects, asserting the existence of an abstract object corresponding to any condition on properties that is expressible in the language. For each instance of comprehension, a corresponding proper description can be formulated as well:

$\iota x(A!x \,\&\, \forall F(xF \equiv \phi))$

For example, the description of the form $\iota x(A!x \,\&\, \forall F(xF \equiv Fa))$ denotes the abstract object that encodes exactly the properties Aristotle exemplifies. The description is called 'proper' because *O* guarantees that the resulting description has a denotation. Namely, the comprehension schema guarantees that there is an abstract object encoding exactly the properties satisfying ϕ, and that there could not be two such objects, for the identity condition on abstract objects requires that two distinct abstract objects differ with respect to at least one encoded property (ibid: 668-9).

The next question concerns the exemplification of the properties. We have seen that abstract objects exemplify the property of being abstract ($[\lambda x \neg\Diamond E!x]$). They also necessarily

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fail to exemplify the concreteness-entailing (‘*CE*’) properties. For example, abstract objects necessarily fail to exemplify the properties of being coloured, having length, being a planet, being a table. Formally, the concreteness-entailing (‘*CE*’) properties are stated thus:

$CE(F) =_{df} \Box\forall x\,(Fx \rightarrow E!x)$ (ibid: 669).

Additionally, abstract objects contingently exemplify various intentional properties, such as being thought of by a person *x*, being admired by a person *y*, and so on.

After this sketchy overview of the theory of abstract objects, we are finally able to present Zalta’s analysis of the notion of ‘essential property’. Since in his metaphysical theory there are two fundamentally different kinds of objects – ordinary objects, which exemplify properties, and abstract objects, which exemplify as well as encode properties – the notion of ‘essential property’ has to be analysed separately for each kind.

6.3 Essence, modality, and ordinary objects

First, let us consider the modal definitions of ‘essential property’ regarding ordinary objects and the analysis of Fine’s counterexamples involving ordinary objects.

In this system, the truth that Socrates is essentially human is interpreted as the assertion that Socrates exemplifies the property of being human in every possible world in which he is concrete, where ‘exemplifies’ is the formal substitute for the ordinary predicative copula ‘is’ or ‘has’. On the other hand, in those possible worlds in which Socrates is not concrete, he does not exemplify the property of being human or any other property that humans typically exemplify. In fact, he exemplifies the negations of those properties as well as the so-called logical properties, such as being one or being distinct from everything else, which any ordinary object exemplifies in every possible world (Zalta 2006: 679).

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Based on these considerations, three distinct notions of ‘essential property’ as applying to the ordinary objects can be defined. (We use the variables u and v to range over only ordinary objects.) These three notions can be formulated as follows:

(3) $Necessary(F, u) =_{df} \Box Fu$

(4) $WeaklyEssential(F, u) =_{df} \Box(E!u \rightarrow Fu)$

(5) $StronglyEssential(F, u) =_{df} WeaklyEssential(F, u) \ \& \ \neg Necessary(F, u)$

The notion defined in (3) – $Necessary(F, u)$ – corresponds to the necessary or trivially essential properties, such as the property of being self-identical$_E$ ($[\lambda z\ z =_E z]$), which every ordinary object exemplifies in every possible world. However, if an object u exemplifies the property F in every possible world, then u also exemplifies F in those worlds in which it is concrete. Thus, the property of being self-identical$_E$ is also a *weakly essential* property of u, defined in (4). On the other hand, it is not a *strongly essential* property of u, which is defined as a conjunction of *WeaklyEssential* and the negation of *Necessary* (ibid: 679-80).

The notions *Necessary* and *WeaklyEssential* are familiar from the literature and correspond to what is usually called necessary and essential properties. However, *StronglyEssential* is new, and according to Zalta, it captures best the intuitive understanding of essential properties. It provides a very simple and clean solution to the problem of excluding the ‘only’ necessary properties from the ‘real’ essential properties. Namely, only those properties count as essential, which an object u exemplifies in all possible worlds in which it is concrete, minus those properties that u exemplifies also in all those possible worlds in which it is not concrete. This move is made possible because of the difference between existence and concreteness in the simplest quantified modal logic. For example, consider the truth that Socrates is essentially human. Socrates (‘s’) exemplifies the property of being human (‘H’) in every world in which he is concrete, so:

$WeaklyEssential(H, s)$.

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If one accepts two additional assumptions:

(6) Socrates is contingent – $\Diamond E!s$ & $\Diamond\neg E!s$.

(7) Being human is concreteness-entailing – $\Box\forall x(Hx \rightarrow E!x)$.

Then one can prove that it is not necessary that Socrates is human since by (6) there is a possible world w_1 in which Socrates fails to exemplify being concrete, thus by (7) he fails to exemplify being human in w_1:

$\neg Necessary(H, s)$

Finally, from the definition of *StronglyEssential* in (5), it follows that indeed it is strongly essential to Socrates that he exemplifies the property of being human:

StronlgyEssential(*H*, *s*) (ibid: 681-2).

The account delivers also an intuitively correct result concerning necessary truths transformed into properties of objects. We have already seen that the logical properties, such as being self-identical ($[\lambda z\ z =_E z]$), are not strongly essential to an object. Socrates exemplifies the property of being self-identical weakly essentially (in every possible world in which he is concrete) and necessarily (in every possible world), therefore, not strongly essentially. Similarly, the other necessary properties that are derived from the necessary truths are excluded. Fine's example is about Socrates and the mathematical truth that there are infinitely many prime numbers. While it is necessary that there are infinitely many prime numbers if Socrates exists, we would not want to count this truth as a part of Socrates's essence. Zalta's account does avoid this, since the property of being such that there are infinitely many prime numbers is exemplified by Socrates in every possible world, thus being necessary and weakly essential, but not strongly essential property of Socrates.

Zalta pays special attention to the counterexample concerning Socrates and the Eiffel Tower (Fine 1994: 5). Fine claims that although it is necessary that Socrates is distinct from the Eiffel Tower, the property of being distinct from the Eiffel Tower is not essential to

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Socrates, for there is nothing in his nature that connects him in any special way to the Tower, which the modal account is not able to convey. Again, Zalta's account does manage to achieve this. Given the proposed definitions of 'essential' and the assumption that Socrates ('s') is not identical$_E$ to the Eiffel Tower ('t'), it can be shown that:

$$Necessary([\lambda z\ z \neq_E t], s)$$

$$WeaklyEssential([\lambda z\ z \neq_E t], s)$$

$$\neg StronglyEssential([\lambda z\ z \neq_E t], s).$$

The property of being distinct from the Eiffel Tower is necessary to Socrates and thus weakly essential, therefore, not strongly essential. In this way, Zalta says, 'we have a natural and well-defined sense in which it is not essential to Socrates that he be distinct from the Eiffel Tower' (Zalta 2006: 682).

Zalta's characterization of 'essential property' within the simplest quantified modal logic and the theory of abstract objects, does manage to exclude the unwanted properties, thus suggesting that Fine's criticism was not all encompassing after all. He did succeed in showing that the standard modal account is too simplistic, but not that the difficulty could not be solved by any modal account. Zalta points out that in his proposal, he manages to preserve the close connection between essence and modality, since the standard characterization of essential property is in a way preserved in the definition of *StronglyEssential* as a conjunct '$\Box(E!u \rightarrow Fu)$'. Moreover, the explanation of the difficulty is given in the simplest quantified modal logic, so that no special logic of essence is needed. Most importantly, Zalta's account seems to undermine Fine's definition of metaphysical necessity in terms of essence since neither *WeaklyEssential* nor *StronglyEssential* implies *Necessary*. On the contrary, *StronglyEssential* explicitly excludes necessity. If '*x* exemplifies *F* necessarily' then it is not the case that '*F* is strongly essential to *x*' (Zalta 2006: 683).

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I agree that Zalta's definition of the relevant essential property as a property that the object *x* has in every possible world in which *x* is concrete and does not have in any possible world in which *x* is not concrete, neatly gets rid of the trivially essential properties. It does seem to show that the modal characterization of the essential/accidental property distinction can deal with certain problematic cases, but on the other hand, this proposal cannot be taken as a reductive analysis of essence, which was what Fine primarily criticised. After all, besides the necessary existence of objects, the main reason for its success is the fact that the essential property is characterized differently in the case of abstract objects than in the case of ordinary objects. However, this different treatment is justified by the fundamentally different nature of abstract and ordinary objects. Thus, Zalta does seem to invoke the nature of objects in his account at least in this fundamental manner, if not in connection with particular cases. Concerning Zalta's claim that being essential does not imply being necessary, I do not think it can be directly applied to Fine's theory in which the nature of contingent objects is conceived in a radically different way. I will return to this below.

Let us return to the question of trivially essential properties. We have seen in Chapter 2 that modal essentialists were always aware of the problem concerning the properties that necessarily belong to all objects. They were called trivially essential properties and excluded from the account due to their triviality. That is to say, they belong to all objects merely because they are objects. The recognised exception was the property of being self-identical, which is a unique property belonging to one and only one object. For example, the property of being identical to Socrates belongs only to Socrates and nothing else. However, it is necessarily true that every object is identical to itself. Thus, the property of self-identity, although not universal, is general since it follows logically from the fact that necessarily every object is identical to itself and the fact that every object has it merely because it is an object. This argument for the exclusion of trivially essential properties sounds reasonable and

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principled; however, Fine showed that the unwanted properties could not be rid of so easy as that. Namely, certain properties can be constructed by combining a trivially essential property with a 'properly' essential property, and such properties do not universally belong to every object whatsoever, but we still do not want them to count as essential. How does Zalta's account deal with such properties?

Zalta mentions the conjunctive property of *being human and not identical*$_E$ *to the Eiffel Tower* - $[\lambda z\ Hz\ \&\ z \neq_E t]$, which could be used in the above example instead of the property of *not being identical*$_E$ *to the Eiffel Tower*. This property is strongly essential to Socrates since he exemplifies it in every possible world in which he is concrete, but not in possible worlds in which he is not concrete and hence not human:

$\neg\ Necessarily([\lambda z\ Hz\ \&\ z \neq_E t], s)$

$WeaklyEssential([\lambda z\ Hz\ \&\ z \neq_E t], s)$

$StronglyEssential([\lambda z\ Hz\ \&\ z \neq_E t], s)$

Still, it does not seem that this property should be essential to Socrates and that Socrates and the Eiffel Tower should be connected in such a special way.

First, Zalta points out that it is not entirely clear what Fine has in mind when insisting that Socrates's nature is not connected in any special way to the Eiffel Tower. Why would anyone think that Socrates is in a special way connected with the Eiffel Tower only because *being human and not identical*$_E$ *to the Eiffel Tower* is strongly essential to him? Given the simplest quantified modal logic, it is necessary that the Eiffel Tower exists, so every proposition whatsoever implies the existence of the Eiffel Tower. Thus, it is not problematic if Socrates's nature implies the existence of the Eiffel Tower. It would have been problematic if it had implied that the Eiffel Tower is concrete; however, this is not the case (Zalta 2006: 683-4).

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As I understand Fine, his complaint that Socrates's nature is not connected in any special way with the Eiffel Tower is not as much about whether it can be implied from it that the Tower exists or is concrete, but about whether the Eiffel Tower is in any way a constitutive part of Socrates's nature. The intuition here is that it is not; therefore, the property of not being identical$_E$ to the Eiffel Tower, which specifically mentions it, should not be counted as an essential property of Socrates. Likewise, the property of *being human and not identical$_E$ to the Eiffel Tower* should not be his essential property either. Fine's main point is that modal essentialists cannot exclude it without evoking Socrates's nature, which would make the account circular. Therefore, the question is whether Zalta can exclude the latter property from Socrates' essential properties without evoking Socrates's nature, as he managed to do in the case of the property of being distinct$_E$ from the Eiffel Tower.

Zalta does have a proposal to this effect: 'One could place a constraint on the principles governing that notion [*strongly essentially*] so as to exclude any property which necessarily implies a property that Socrates has in every possible world' (Zalta 2006: 684). Fine did consider the possibility of the exclusion of the properties that were at least in part based on some necessary truth due to their irrelevance, but rejected it since not all such properties deserved exclusion. For example, it seems right to count the property of *being such that there are sets* as an essential property of the null set (Fine 1994: 7). However, all such cases involve abstract objects, so it would appear that Fine's objection does not work here, where only the essential properties of ordinary objects are discussed.

To sum up, Zalta's characterization of 'essential property' for ordinary objects successfully deals with Fine's counterexamples within the quantified modal logic, thus proving that the modal characterization is not in principle incapable of capturing the concept of essence and essential property. However, the characterization cannot be taken as an analysis that completely dispenses with the need to invoke the natures of objects, since the

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proposal provides different characterizations of the essential property for ordinary objects and abstract objects. In this respect, Fine's objection directed at the standard modal account still stands. Moreover, some features of the proposal are controversial, especially the necessary existence of all objects and the notion of the contingently nonconcrete objects. I will return to this after the outline of the characterization of the 'essential property' in the case of abstract objects.

6.4 Essence, modality, and abstract objects

The characterization of the essential/accidental property distinction in connection to abstract objects depends on their conception in Zalta's theory of abstract objects, *O*. Abstract objects encode and exemplify properties and both ways of having properties might provide a source of essential properties. The encoding properties of an abstract object *x* are characterized as those of its properties which determine *x*, that is to say, are part of its nature and govern the conception of *x*. The same wording is typically used in the characterization of essential properties, which suggests to Zalta that the essential properties of abstract objects are simply their encoded properties (Zalta 2006: 685).

This is illustrated with the example of Sherlock Holmes. The properties that are essential to him are the ones by which he is conceived: being a detective, being brilliant, having Dr. Watson as a friend, having Moriarty as his archenemy, and so on. Zalta insists that Holmes's encoded properties are more crucial to his identity than properties that he necessarily exemplifies. For example, Holmes necessarily exemplifies the property of being abstract and thus, also the property of not being a detective, which is a negation of the concreteness-entailing property of being a detective. However, we do not want the property of not being a detective to be one of Holmes's essential properties. Similarly, Holmes is not essentially abstract. On the contrary, it is relevantly implied in the story that Holmes is a

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concrete object, thus making concreteness his encoded and essential property. The result is quite unusual: Sherlock Holmes is essentially concrete and he necessarily exemplifies the property of being abstract (ibid: 685-6).

Another mentioned example is the golden mountain – the object that encodes just two properties of being golden and being a mountain. These are essential to it, while being abstract, being non-golden, and not being a mountain are the properties it necessarily exemplifies (ibid: 686).

Similarly, the essential properties of mathematical objects are their encoded properties and not the ones that they necessarily exemplify. In *O*, every well-defined term of a mathematical theory is represented as denoting a unique abstract object, i.e. a mathematical object. It must be noted that a mathematical term, such as the empty set ('$\varnothing$'), is ambiguous until the relevant mathematical theory is identified, hence when it is imported in *O*, it must be indexed to its respective mathematical theory, $\varnothing_{ZF}$ or $\varnothing_{ZFC}$. These two terms denote two different mathematical objects. Now, if T is any mathematical theory, κ any name or proper description (or function term) appearing in T, and κ_T is the representation of κ in *O*, the following Theoretical Identification Principle holds in *O*:

$$\kappa_T = \iota x(A!x \ \& \ \forall F(xF \equiv T \models F\kappa_T))$$

This asserts that the object κ of theory T is the abstract object which encodes just the properties F exemplified by κ_T according to theory T. For example, the empty set of *ZF* is identified as the abstract object that encodes just the properties F that the empty set of *ZF* exemplifies according to *ZF*:

$$\varnothing_{ZF} = \iota x(A!x \ \& \ \forall F(xF \equiv ZF \models F\varnothing_{ZF})).$$

An immediate consequence of the Theoretical Identification Principle is that a certain mathematical object encodes all and only the mathematical properties that it exemplifies according to the governing mathematical theory (ibid: 674-7). Consequently, the object's

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mathematical properties are its essential properties and 'the only ones that are constitutive of its nature as an object' (ibid: 686).

Now, the notion of 'essential property' for abstract objects can be defined as follows:

$Essential(F, x) =_{df} xF$, where x ranges over abstract objects.

From the definition, it transpires that this notion is not modal; nevertheless, it has modal implications. Given the governing axiom of the logic of encoding – $\Diamond xF \rightarrow \Box xF$ –, if x is abstract and F is essential to x, then necessarily x is essential to x. However, it is important to note that from the fact that F is essential to x, it does not follow that x necessarily exemplifies F. Although this can happen, it is not typically the case; more often than not x does not even exemplify its essential property. Remember Holmes who is essentially concrete, but necessarily exemplifies the property of being abstract (ibid: 687).

Interestingly, this definition of 'essential' resembles a lot Fine's own proposal. The essence of an abstract object consists of the properties that are constitutive of its nature, that determine what it is. Likewise, the notion is not modal, but it has modal consequences. In my opinion, this is a clear indication that for the modal approach the main difficulty is to represent correctly the essential properties of the objects, which are outside the framework of the simplest quantified modal logic called the necessary existent objects. I would also like to note that such an approach comes naturally in the case of abstract objects. We envisage them as uniquely identified or determined through definitions and find the idea of them having individual essences very plausible. In the case of ordinary objects, we do not really see how could they be uniquely identified by their essences since there are so many of the same kind and we would need to include many properties into the essence of the object to distinguish it from the others of the same kind. However, we do see that if nothing else, the object belongs to a certain kind necessarily and thus can be at least distinguished from the objects of other kinds. Such considerations make the modal approach more plausible since it focuses on the

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particular properties that are essential to an object and not the whole individuating necessary profile of an object, which we seem to associate with a definition. Certainly, there is no reason to assume that the definition must state the uniquely identifying profile of an object, or that an object must be identified in terms of its qualitative properties, but we very often do assume this, which determines what approach we will find more attractive.

Finally, we should turn to Zalta's detailed analysis of the example of Socrates and *singleton Socrates* (ibid: 687-91). The essentialist asymmetry in the example is explained in terms of the theory of abstract objects. The underlying idea is that the asymmetry derives from the fundamentally different natures of the abstract *singleton Socrates* and the concrete Socrates.

First, the expression 'singleton Socrates' must be disambiguated and we shall assume that it is a term of minimal modal set theory M. By this, we mean the minimal set of principles required for Fine's counterexample.[87] In M, 'Socrates' ('s') names one of the urelements, and 'singleton Socrates' ('$\{s\}$') abbreviates the proper description 'the unit set of Socrates'. Now, we import into O each theorem ϕ of M by prefacing ϕ with the operator 'According to M' and indexing the well-defined terms in ϕ to M. One of the theorems of O is then:

$$\mathrm{M} \models F\{s\}_{\mathrm{M}}$$

This characterizes a group of properties F, which are exemplified by the M-singleton of Socrates according to M.[88] Now, the instance of the Theoretical Identification Principle for the M-*singleton Socrates* is:

$$\{s\}_{\mathrm{M}} = \iota x(A!x \ \& \ \forall F(xF \equiv \mathrm{M} \models F\{s\}_{\mathrm{M}})) \text{ (ibid: 688).}$$

[87] Zalta mentions that Fine is not very specific on this; that he only assumes a context of 'modal set theory' plus ordinary Urelemente, without specifying which particular modal set theory he has in mind (Zalta 2006: 687). Probably he had in mind the version of the modal set theory from Fine 1981.
[88] We do not index the term 's' since it denotes one of the urelements.

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From what was said before, it is clear that the properties essential to M-singleton Socrates are the properties it exemplifies according to M, namely, its encoded properties. And according to M, the following are theorems:

(i) Socrates is an element of singleton Socrates,

(ii) singleton Socrates exemplifies the property of having Socrates as an element,

(iii) Socrates exemplifies the property of being an element of singleton Socrates.

Thus, M-singleton Socrates encodes the property of having Socrates as an element (see ii):

$(\rho)\ \{s\}_{\mathrm{M}}\ [\lambda z\ s \in z]$,

which is then its essential property as well.

Zalta points out that this result – that the property of having Socrates as an element is essential to the M-*singleton Socrates* – is a consequence of the theory of abstract objects and analysis of mathematical objects in terms of that theory, while Fine just presupposes this.

Socrates, on the other hand, is an ordinary object and is governed by the axiom that ordinary objects (necessarily) do not encode properties:

$O!x \rightarrow \Box\neg\exists F\ (xF)$

Therefore, Socrates does not encode any property; consequently, it does not encode the property of being an element of the M-singleton Socrates – $\neg s\ [\lambda z\ z \in \{s\}_{\mathrm{M}}]$ (see iii). Furthermore, no property of Socrates can be abstracted out of the properties exemplified by singleton Socrates according to M, the properties Socrates himself exemplifies according to M, or the properties encoded by the M-singleton Socrates, since by λ-conversion we get expressions with encoding subformulas that are not well-formed expressions in *O*.[89] As a result, Socrates has no new properties following from the analysis of M-singleton Socrates (ibid: 690).

[89] For details, see Zalta 2006. λ-Conversion Principle is explained on p. 665, the justification of the constraint on λ-expressions on p. 670-1, relevant theorems of *O* on p. 689 and their λ-conversions on p. 690.

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Finally, consider Socrates in his own right, an ordinary object that is given independently of any mathematical theory. Is the property of being an element of singleton Socrates essential to him? This can be formulized as $[\lambda z\ z \in \{s\}_{\mathrm{M}}]\ s$ and it can be derived from $s \in \{s\}_{\mathrm{M}}$ by λ-conversion. However, from the point of view of *O*, the claims that are not prefixed by the theory operator are not true or even assertible in *O*. In fact, the decision is to assert negations of such claims:

$$\neg s \in \{s\}_{\mathrm{M}}$$

then it follows that

$$\neg\Box s \in \{s\}_{\mathrm{M}}$$

And from this, by λ-conversion, that

$$\neg\Box[\lambda z\ z \in \{s\}_{\mathrm{M}}]\ s$$

Therefore, it is not the case that Socrates necessarily exemplifies the property of being an element of singleton Socrates. Moreover, it is consistent with the theory to claim not only that $s \in \{s\}_{\mathrm{M}}$ is false, but that it is necessarily false. It is necessary that Socrates fails to exemplify the property of being an element of singleton Socrates, and consequently the property is neither weakly nor strongly essential to Socrates (Zalta 2006: 690-1).

Zalta managed to preserve the essentialist asymmetry between singleton Socrates and Socrates. It follows from the mathematical analysis of the M-singleton Socrates in terms of the theory of abstract objects that the property of having Socrates as an element is essential (in the sense appropriate for the abstract objects) to the M-singleton Socrates. On the other hand, it is not essential for Socrates as an ordinary object, as opposed to the mathematical object 'Socrates of M', that he is an element of M-singleton Socrates. More specifically, it is not essential to him in none of the defined senses of 'essential' applying to the ordinary objects. Different treatment of the singleton Socrates and Socrates is theoretically

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warranted. There is a fundamental difference between the way in which abstract and ordinary objects have their properties, which demands two different characterizations of 'essential'.

In fact, we cannot really say that Zalta successfully preserved the essentialist asymmetry between Socrates and *singleton Socrates* since the two are not really connected. *Singleton Socrates* is an abstract object, which has Socrates as a member; however, this Socrates is not our ordinary Socrates, but a mathematical object, 'Socrates of M', which encodes properties that are attributed to urelement Socrates in M. Thus, the resolution of the counterexample does not really have to do with the resources of the proposed modal account, but with the underlying metaphysical thesis about the fundamentally different nature of abstract and ordinary objects. Given this, on the one hand, concrete Socrates cannot be in principle an element of the abstract *singleton Socrates*, and on the other, the singleton is not dependent on concrete Socrates for its existence. Basically, Zalta rejects Fine's metaphysical thesis that concrete objects can be elements of sets, which led him embrace the modal set theory in the first place. Fine accepts singular propositions that include objects as their immediate element as well. We have here two opposing metaphysical views, one drawing a strict divide between what is abstract and what is concrete, while the other seeing them as intertwined.

6.5 Sherlock Holmes is essentially concrete, but necessarily exemplifies being abstract?

Zalta's theory of the abstract objects has some aspects that should be further discussed. For example, more should be said about the two ways of 'having' properties. The difference between the 'encoding' and 'exemplifying' of properties was introduced informally, by enumerating some examples, such as the one of the golden mountain, in which the distinction between two ways of 'having' properties seems the most plausible. Detailed discussion of this

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issue would take us too far from our topic, thus I would only like to point out some strange consequences of the theory in connection to essentialism.

According to this theory, abstract objects are not essentially abstract (with few exceptions). They necessarily exemplify the property of being abstract, but this by definition is not part of their essence or nature. For example, mathematical objects encode properties they exemplify according to the governing mathematical theory, that is to say, the mathematical properties only. Whether they are abstract or concrete objects, or even if they are needed for the truth of mathematical claims at all, is not something that matters to the practicing mathematician. I am tempted to say that s/he is interested in the special aspects of the mathematical objects and not *per se* in what makes them the objects that they are. Undoubtedly, mathematical properties constitute the essence of mathematical objects, but that they are abstract seems to me also part of what makes them the objects that they are. On this understanding, the nature of mathematical objects seems to depend entirely on a mathematical theory, like there is no reality in which the truth of mathematical theories is grounded. But this does not sit well with the standard realist interpretation of essentialism. The encoding properties are determining an abstract object and as such, they are part of its nature and govern the conception of that object. Now, it is true that in order to identify uniquely a certain abstract object, I need to know its unique characteristics, such as being a number and a successor of 2, while the property of being abstract is too general to be of help. Nonetheless, this does not change the fact that it is an abstract object and that being abstract is part of the object's nature. In other words, maybe it does not have a part in identifying the object, but it is nevertheless constitutive of the object, which supposedly exists independently from us.

The biggest problem I have with the theory concerns fictional objects. Sherlock Holmes encodes the properties by which he is conceived: being detective, living at 221b Baker Street, London, being brilliant, having Dr. Watson as a friend, etc. More accurately put,

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Sherlock Homes in *O* is an abstract object that encodes exactly the properties *F* such that according to the Conan Doyle novels, Sherlock Holmes is *F*. All these properties are also his essential properties. But it is quite improbable that all the properties that Sherlock Holmes has in the novels are essential to him. Does every little detail really constitute Sherlock's essence? The problem is that in the case of familiar abstract objects, such as numbers or sets, their nature is quite 'thin', only few properties matter within the relevant theory, and so it is natural that all these properties are essential. However, according to the Comprehension Principle there is an abstract object that encodes exactly the properties satisfying ϕ. In the case of Sherlock Holmes, ϕ consists of what is written in the Conan Doyle novels, so every detail about Sherlock constitutes encoded property. The theoretical grounds are sound, but the result is counterintuitive.

Another thing is that Conan Doyle could have written some parts differently, so that, for example, Holmes would live on Butcher Street or something like that. In this theory, Sherlock Holmes is an abstract object whose nature does not vary from one world to another. It is uniquely determined by what is written in the Conan Doyle novels. Zalta does have a response to this objection. He tries to accommodate the claim that Holmes might have been a mathematician. According to him, the property of possibly being mathematician can be attributed to Holmes, if we plausibly assume that the story implies that Holmes might have embarked on various careers as a lad, and that he might have been a mathematician. Then, this property is one of Holmes's encoded properties as well (Zalta 2006: 686, fn. 18). Moreover, Sherlock Holmes, as an abstract entity, exists in every possible world. Can this be reconciled with the true claim that Conan Doyle could have not written the novels, so that there would not have been Sherlock Holmes? Certainly, this possibility has in a way nothing to do with the theory of abstract objects, which is an analysis of the Conan Doyle novels considered as an abstract entity encoding propositional content. What is true and possible or necessary is

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only discussed in the framework of the Conan Doyle novels. I guess that the possibility of the novels not being written is a possibility concerning Conan Doyle, an ordinary object. There is a possible world in which Conan Doyle does not write the novels. But then it would seem that we should also be able to claim that possibly Sherlock Holmes does not exist. In other words, in the abovementioned world, there is no fictional object Sherlock Holmes. I am not sure what the right answer is here.

Finally, the encoded properties of Holmes are all concreteness-entailing properties, so that it is essential to him that he is concrete as well. On the other hand, he necessarily exemplifies the property of being abstract. Again, all the properties that are considered essential to him are the properties that he is conceived to possess as a person of flesh and blood in fiction, while the properties that he has in virtue of being a fictional object are not essential to him.

This result seems quite counterintuitive. However, it must be acknowledged that fictional objects are a very special sort of objects, and that our intuitions on what is essential to them are not very clear. Hence, in my opinion, the assessment of the proposed characterization of the essential/accidental property distinction for abstract objects should not put too much weight on the issue of fictional objects.

6.6 The existence and nature of contingently nonconcrete objects

In explaining why being human is an essential property of Socrates, Zalta relies on the assumption that the property of being human is a concreteness-entailing property – $\Box\forall x(Hx \rightarrow E!x)$. This means that in possible worlds in which Socrates is not concrete, he is not human as well. Certainly, the fact that ordinary objects do not exemplify their essential properties in the worlds in which they are not concrete is what makes it possible to distinguish between weakly and strongly essential properties. It is the basis of the successful characterization of

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‘essential’. However, I find the claim that there are worlds in which Socrates is not a human puzzling. I know that on this account essential properties are defined as those properties that an object exemplifies in every world in which it is concrete, but I do not see how Socrates can exist in any world, being concrete or nonconcrete, without having his essence. After all, what constitutes him as Socrates, or makes him what he is, if not him being human?

Ordinary objects are said to have some properties in every world. For example, it is claimed that Socrates is self-identical in every world. But this implies that he is what he is. Again, my question is how he can be self-identical if he does not have all of his essential properties. These properties are constitutive of Socrates, the properties in virtue of which he is what he is. If he does not exemplify them, then how can we even talk about he, Socrates, and not only of it, an object? In other words, my question is whether possessing an essence is not a precondition of there being an object at all, that is, a precondition of its existence.

The answer probably lies in the modal properties of the contingently nonconcrete objects. The properties that they exemplify in our world are such properties as being nonphysical, nonspatiotemporal, lacking in shape, size, texture, and so on. They also exemplify the negations of other ordinary properties, for example, the property of not being human. However, the contingently nonconcrete objects also exemplify modal properties, for example, the property of possibly being human. For example, Socrates is identified with a certain nonconcrete object in some possible world since it exemplifies the property of possibly being human (among others). Nevertheless, the question remains: what is the essence of this nonconcrete object that is possibly human in virtue of which it is a proxy for our Socrates. It seems that its entire positive nature is that it is one in number, distinct from any other object and otherwise nonconcrete, and it is in virtue of which the claims that Socrates is necessarily self-identical, that Socrates is necessarily distinct from everything else, and that Socrates is not necessarily concrete and not necessarily … [insert any concreteness-

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presupposing property] are true. I have difficulties in grasping what the essence of this object is in its own right. If it had not been for Socrates in our world, it would have been nothing. Generally, the nature of the contingently nonconcrete objects seems mysterious since they do not encode properties as abstract objects do and exemplify mostly negative properties. Moreover, they are not concrete and not abstract, but what else is there?

Some answers to these questions can be found in Williamson's 'Necessary Existents' (2002). First, Williamson explains why the necessary existence of everything is not contentious. The relevant sense of 'exist' here is the logical sense. It means to exist in a minimal sense, or existence as a necessary precondition of having any properties or relations. The underlying idea is that necessarily, if *x* does not exist, then there is no such item as *x*, from which it follows, by contraposition, that necessarily, if there is such an item as *x* then *x* exists. We can formulize '*x* exists' in accordance with the familiar formula $\exists y\ x = y$, where the quantifier is not restricted to any particular kind of thing. Specifically, it should not be restricted by mere definition to what has spatial or temporal location (Williamson 2002: 244). This logical existence, then, is the bare minimum needed to make such claims like 'Santa Clause does not exist'. The claim here is that Santa Clause does not exist in a sense of concreteness, but in order to make this claim, Santa must exist in the logical sense. As Williamson points out, the non-existence in the logical sense is a very radical matter since it entails having no properties or relations whatsoever (ibid: 245-6).

Williamson continues with the explanation of what is meant by a possibly concrete object. We should not assume that the only alternative to being concrete is being abstract. As he plausibly points out, when Trajan died, he did not become an abstract object, he just ceased to be concrete. He became something that had once been concrete. Similarly, in the case of modality, 'if my parents had never met, I would have been something neither abstract nor

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concrete, but something that could have been concrete. I would have been a possible concrete object' (ibid: 246).

The comparison with past objects is persuasive and the plausibility of the notion is further supported if we acknowledge two readings of the '*x* is a possible physical object', namely the predicative and attributive reading. On the predicative reading, '*x* is a possible F' is equivalent to the conjunction '*x* is possible and *x* is an *F*', and then a possible physical object is a physical object, one which could exist. However, the relevant reading for us is the attributive one, on which '*x* is a possible F' is equivalent to 'it is possible that *x* is an *F*' ($\Diamond Fx$). On this reading, a possible physical object does not have to be a physical object, and it can qualify simply because it could have been a physical object. Accordingly, we can define a merely possible *F* as a possible *F* that is not an *F*. In this way, the contingently nonconcrete objects can be classified in terms of what they could have been: possibly concrete objects (ibid: 246-7). Therefore, they are neither concrete, nor abstract, but they are possibly concrete.

Williamson also addresses the question about the identity of an object exemplifying so very different properties in different worlds. It is capable of being an embodied person, situated in space and time. It is also capable of being a merely possible person, disembodied, spatiotemporally unlocated. However, Williamson argues that two sets of properties are not completely disparate: 'The person actualizes the potential to have properties characteristic of a person. The merely possible person has the unactualized potential to have such properties' (ibid: 248).

Therefore, what connects Socrates in the actual world with some nonconcrete object in some other world is that the latter has a potential to have certain properties of the actual Socrates. Probably, these properties are his essential properties, so could we say that nonconcrete objects have potential essences?

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Further support for the claim that possibly concrete objects are sufficiently characterized in the modal terms comes from the necessity of identity and distinctness. By the necessity of identity, if *A* could have been distinct from *B* then *A* is distinct from *B*, for if *A* and *B* are identical and *A* could have been distinct from *B* then *A* could have been distinct from itself (by the indiscernibility of identicals), and this is impossible. In this way, the mere potential to be distinct suffices for the actual distinctness. Similarly, suppose that, necessarily, *F*s are identical if and only if they could both be *F* and stand to each other in *R*. Let *A* and *B* be possible *F*s. Then, if *A* and *B* are identical, in possible circumstances in which *A* is an *F*, *B* is the same *F* and they stand to each other in *R*. Conversely, if *A* and *B* could both be *F* and stand to each other in *R*, then they could be identical, and therefore are identical. Williamson thus concludes that to the extent to which we can state identity conditions for *F*s, we can state identity conditions in corresponding modalized terms for possible *F*s (ibid: 248-9).

Thus, the potential essence of a contingently nonconcrete object is the set of possible properties whose nonmodal variants the object would have necessarily exemplified if it had been concrete, or something along these lines. It would seem that the idea of contingently nonconcrete objects having potential essences can be defended.

To conclude, the theory of abstract objects and the simplest quantified modal logic manage to crack the hard examples, which Fine devised as a challenge to modal essentialists. Thus, Zalta proved that the modal approach to the 'essential' is not in principle incapable of delivering the correct results. However, Fine is right that any attempt to analyse essence and the essential/accidental property distinction reductively, that is to say, as nothing more then a sort of necessity, will fail. For instance, Zalta's account is importantly determined by his metaphysical view on objects, according to which the nature of abstract and ordinary objects is fundamentally different and they form two entirely separate classes, each with its own

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characterization of the essential property. It also depends on the underlying simplest quantified modal logic and its thesis on the necessary existence of all objects. This closely connects the characterization of the essential property in the case of ordinary objects with the notion of concreteness, as opposed to the existence in the standard modal accounts. Concerning the essentialist characterization in case of abstract objects, this presupposes two different ways of 'having' properties – abstract objects exemplify and decode properties. The combination of the two kinds of properties can often produce counterintuitive results, like numbers being essentially numbers, but only necessarily abstract objects.

However, if both accounts – the modal and the definitional one – can successfully characterize the essential/accidental property distinction, then it would seem that the choice between the two would depend on other metaphysical or theoretical considerations. As we have seen, Zalta's proposal is an integral and inseparable part of his metaphysical theory. Accordingly, often the results on what is essential or not are consistent with the rest of his theory, but clash with our commonsense opinions on these matters. In this respect, Fine's proposal is more neutral and it can accommodate our essentialist intuitions more easily. One could worry that by giving up the analysis within the quantified modal logic, we lose a useful tool, which helps in clarifying and expressing essential matters; however, the logic of essence employs the framework of possible worlds as well, thus presumably preserving this particular advantage of the modal approach. Given these considerations, at this point, I prefer Fine's approach to essence and the essential/accidental property distinction.

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CONCLUSION

In this dissertation, I discuss the ways in which the essential/accidental property distinction is characterized in contemporary metaphysics. My aim is to determine whether the two main accounts – the modal or the definitional one – capture the intended distinction as well as to ascertain which of the two better characterizes the distinction. Additionally, I attempt to show that the distinction, whether characterized in modal or definitional terms, can be plausibly interpreted realistically, namely as being grounded in the objects themselves.

First, I present the standard modal account from the 1970s and 1980s and Kit Fine's criticism of it, which identifies a serious problem. The modal proposals do not, and in Fine's opinion could not, in principle, distinguish between the conditions of *x*'s identity and the consequences of its identity.

Before assessing Fine's own characterization of essence in definitional terms and the improved modal account that tries to solve the indicated difficulty, I discuss the conventionalist and contextualist interpretations of the modal account and find them unsatisfactory. More correctly put, I do not find their objections to the realist interpretation damaging, or see any advantage in adopting the conventionalist or contextualist interpretation. Briefly, conventionalists' metaphysical and epistemological worries concerning real metaphysical modality are primarily fuelled by their narrow empiricist position, which many find wanting. Contextualists supplement the metaphysical view about the nature of objects with the semantic thesis on the context sensitivity of essentialist claims and can take a conventionalist position on the nature of metaphysical necessity in general or a realist one. Since conventionalist worries were already dealt with, I focus on the realist version of contextualism. One of the main reasons why a realist about modality would choose to understand the essential/accidental property distinction in contextual terms, namely, as partly

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determined by the way in which we conceive or talk about objects, is the so-called problem concerning the variation of essentialist intuitions. According to sceptics, the fact that we vary a lot from situation to situation in what we find essential to an object shows that the distinction cannot be grounded in the objects themselves or, at least, that we do not really have a reliable method for acquiring modal knowledge. I argue that the contextualist approach cannot explain away all the cases of disagreement in intuitions, thus not being worth supporting. Especially since the metaphysical view, hiding under the contextual cover, is actually more like anti-essentialism than what we would normally call essentialism.

Finally, I turn to the definitional characterization of the essential/accidental property distinction and its merit. I ascertain that Fine's proposal successfully deals with the examples that caused troubles for the standard modal account. I focus on two main aspects of the proposal, namely, on the nonmodal understanding of essence and the concept of the real definition and its role in the characterization. After some deliberation I conclude that these two aspects of the theory are defendable, which further suggests that the account can be satisfactorily used in the characterization of the essential/accidental property distinction.

Then, I return to the modal account and try to determine whether Fine's criticism in fact applies to the modal account in general or only to a particular variant of it, namely the standard variant. I agree with Fine that essence is a too basic concept to analyse in fundamentally different terms. However, this does not mean that modality cannot be used in the clarification of the notion in a similar fashion as the real definition in Fine's account. I consider Zalta's proposal in terms of the simplest quantified modal logic and the theory of abstract objects. He grounds the essential/accidental property distinction on the assumption of the fundamentally different natures of abstract and ordinary objects, which justifies two separate characterizations of the essential property. I determine that his proposal successfully

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deals with Fine's counterexamples and thus it can be considered as one way of clarifying the essence and essential property as well.

Therefore, my main conclusion is that both approaches, the modal and the definitional one, can be used in characterizing the essential/accidental property distinction, thus deserving further development. Ultimately, the choice between the two approaches depends on the rest of the philosopher's metaphysical and theoretical considerations. As they stand, I prefer Fine's definitional account over Zalta's modal account, since the latter works only within his simplest quantified modal logic and in connection with his theory of abstract objects. Moreover, Fine's suggestion to explain metaphysical necessity in terms of essence, to root metaphysically necessary truths in the essences of things can help solve the problem of the source of the modal truth and of the related problem of the possibility of modal knowledge.

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