

Ontological Consequences of Views in the Metaphysics of Time

PhD Research Proposal

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Contents

Thesis Working Title	3
Statement of Research Topic/Problem.....	3
Introduction (Significance of the topic & literature review).....	4
Objects and Entities	13
Ontological Commitment.....	14
Introducing (5) Problems within Presentism	16
The problem of truth-making.....	19
The Supervenience Problem and that truth supervenes on being.	20
Being a truth-maker	24
The Problem of reference.....	25
The Problem of Shifting Truth-makers.....	26
The Meinongian Problem	27
Statement of Research Questions.....	29
Methodology & Forms of Analysis	29
Thesis outline	31
Resource requirements.....	33
Timetable for the project.....	34
Bibliography	35

Thesis Working Title

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Statement of Research Topic/Problem

Suppose that I manage a supermarket and need to take an inventory of the goods in the store. The inventory will include all of the items presently in stock, items that have been sold recently, and items that have been ordered recently. Recently sold stock may be called ‘past stock,’ and recently ordered stock may be called ‘future stock.’

Only items on the shelf are presently in stock. They are items that were ordered at some past time, and—presumably—they will be items that will be sold at some future time. When these items were on order, they were not presently in stock. And, when they are sold, they will no longer be in stock. They are however now in stock and available in the store.

Past stock *was* a part of the inventory at one time, so I have to include it in what I report to the government to pay the correct amount of tax on it. I would say things like “We sold 596 items in October” or “We sold 70 large ticket items, with values exceeding \$10,000.” If I didn’t know how many items were sold or didn’t know the value of these items, then I wouldn’t be able to make a claim about past stock.

Future stock *will be* part of the inventory at some future time. I should know what is and isn’t in stock currently in order to appreciate what items I need to order for customers. If a customer asks whether we’re getting manuka honey infused Weet-Bix in the store next Wednesday, I better have accounted for that in my inventory. I will be able to help my customer to choose whether to come into the store.

Presentism, a view of time, has argued that our ontology includes only presently existing things. Just as I, as manager of a grocery store, inventory the present stock in my supermarket, so too does the presentist count things that exist in the world. Just as I will have to account for past and future stock for my supermarket, so too will the presentist have to account for past and future entities in their ontology. But how does a proponent of presentism take an ontological inventory of nonexistent entities if their ontology only includes presently existing things? My challenge is to show how presentism accounts for entities that existed in the past and those that will exist in the future. Further to the analogy, to account for whether an item is sold, in stock, or on-order.

Introduction (Significance of the topic & literature review)

A significant philosophical problem in metaphysics, the philosophic study of ultimate reality, asks, “What is time?” Philosophers of time have argued for different positions in response to this question on the nature of time. Some have argued that time is real, and others have argued that time is unreal. (For an argument on the unreality of time, see McTaggart, 1908.) Some have argued that time is static (i.e., most so-called ‘B theorists,’ e.g., Prior, 1967; Smart, 1949,) while others have argued that time flows, or is dynamic (e.g., Ingram, 2019; Miller, 2013; Newton, 2016, p. 77.) My main concern will not necessarily involve time alone, but how a theory of time, namely presentism, overlaps with another core area of metaphysics: ontology.

Ontology asks, “What is there?” (For an introduction to the ontological question and the central ideas of the subject of being see, Jacquette, 2002.) Perhaps the simplest response is “Everything.” (See Quine, 1953 for just such a response.) However, the view of time that one adopts has a profound effect on what *everything* includes. If one accepts presentism, the view that only present things exist, then *everything* that presently exists may be included in one’s ontology (Hinchliff, 1996, p. 123; Markosian, 2004, pp. 47-48). In opposition to presentism is eternalism, the view that past, present, and future things all exist (Mellor, 1998; Sider, 2001). So, if one accepts eternalism, then our ontology is composed of *everything*: past, present, and future.

According to these two theories of time, the world is either a presentist world (Pw) or an eternalist world (Ew). If the world is a Pw, then only present entities exist. If the world is an Ew then past, present and future entities exist. Therefore, the presentist and eternalist postulate distinct ontologies. For example, the eternalist thinks that dinosaurs and future human outposts on Mars exist. The presentist denies that such past and future entities exist. The presentist thinks that there are only those entities which presently exist.

My research will consider the ontological consequences of views within the metaphysics of time. Only one view of time can be true. I seek to address the question of what things constitute this world, on the one hand in the case that presentism is true, and on the other hand in the case that eternalism is true. I will consider the entities posited by each of these views. I will analyse established arguments that purport to show that different kinds of entities exist, in accordance with the two views. I will challenge these arguments by determining whether they are consistent with principles that the views of time uphold, such as parsimony and explanatory power. Then, I will consider whether the ontologies delivered up by these views undermine the very principles that they seek to embrace. I will consider the consequences that follow from positing these various kinds of entities. I argue that the ontological implications of the two views show that the consequences that follow from the established views conflict with the conclusions of ontological

parsimony and explanatory power generally argued for. Presentism has been developed from a simple view motivated by intuition (Bigelow, 1996; De Clercq, 2006; Markosian, 2004; Sider, 2001; Tallant, 2009) into a sophisticated theory offering innovative solutions to metaphysical problems. However, these innovative solutions do not come cheap. I intend to outline the costs by drawing a picture of the ontologies that result from the views of time considered. Presentists must change their view of time or give up other strongly held beliefs like parsimony or explanatory power.

According to presentism, the moment that you read this expression - 'now1', no longer exists at the moment that you read this expression - 'now2'. Presentists think that only the present moment exists. More precisely, presentism is the view that only the instantaneous present moment and all the entities that occur at this moment exist. Ned Markosian, a defender of presentism, defines the view thus:

... necessarily it is always true that only present objects exist (Markosian, 2004, p. 47).

and he goes on to say:

According to Presentism, if we were to make an accurate list of all the things that exist—i.e. a list of all the things that our most unrestricted quantifiers range over—there would be not a single non-present object on the list (Markosian, 2004, p. 47).

Therefore, where x denotes an entity and P the predicate *being present*, the simple formulaic expression, $(\forall x)Px$, quantifies over every entity that presently exists in the world.

Presentism is the view that reality consists only of what is present. The presentist thinks that the present is the temporal locus where everything takes place. Even though the past did exist, and the future will exist, what we call the past and the future do not exist side by side with the present. We have memories of the past and aspirations for the future, but it is a mistake to think that the past and future entities that we think of exist 'out there' at a temporal distance from the present. Not even the past and future times that we speak of exist. Given this view, presentism is also the view that what is present changes. Presentism is not the view that everything past, present and future is somehow happening at once.

Presentism consists of two theses: an ontological thesis and a dynamical thesis. (See Ingram, 2019, p. 20; Leininger, 2015, p. 726 and ; Miller, 2013, p. 346 for this statement of presentism). The first thesis is inviolable, such that any view in which non-present entities exist is not presentism. The ontic thesis is a statement of what exists, without restriction. Theodore Sider explains the ontological view when he writes:

Presentists and eternalists make competing claims about temporal ontology. According to presentism, only present things exist. According to eternalism, past and future things, such as dinosaurs and human outposts on Mars, exist as well. These are theories about what there is, just like actualism, possibilism, Platonism, nominalism, Meinongianism, idealism, materialism, theism, atheism... (Sider, 2006, p. 75).

This explanation draws out the main two competing temporal views that respond to the ontological question, ‘what is there?’

And for the second thesis, any view in which time is static and no genuine change occurs is also not presentism. A static world is a better fit with the ‘block universe’ picture of an Ew. On this view, all times exist side by side so to speak, and the human experience of time passing is merely an illusion. Presentists think that genuine change occurs; what is future becomes present and then what is present becomes past. But the present is where the change takes place. Strictly speaking the future and past referred to do not exist. They are merely the things that will be or were present. For time to be static, either no change takes place, or all times exist as per the eternalist view. The result is that presentism is a view about coming into and going out of existence. A present entity becomes existent. It enters into an existent mode of being. As time passes, most entities go out of existence. They cease to exist and so cease to occupy an existent mode of being. (On another account, which is rejected by non-Meinongian presentists, these objects enter into a mode of nonbeing. I will discuss this view later.) Kristie Miller summarises this view:

[A] presentist world is one that dynamically changes over time: the totality of events that exist changes as time passes, so that a different set of events comes into existence as each new present moment comes into existence, and those events then pass out of existence as that moment ceases to be the present moment. (Miller, 2013, p. 346)

To recapitulate, presentism consists of an ontological thesis and a dynamical thesis; according to presentists the present entities that make up reality come and go.

Following from the distinct ontologies delivered up by presentism and eternalism are distinct ways of responding to a range of metaphysical questions, such as: what things exist, what mode of being do different kinds of entities occupy, and what properties and relations are instantiated in the world, if any? Are the past and future real? And what ‘makes’ one’s assertions about past states of affairs true?

In this thesis I will focus on the third example, truth-making. Take the question of what ‘makes’ a truth-bearer true. The truth-maker maximalist says that ‘for every truth-bearer there is a truth-maker.’ Call

this principle TM. Theodore Sider (2001) and David Lewis (2001) have given the following summaries of the principle:

[...] for every truth, T, there exists an entity - a ‘truth-maker’ - whose existence suffices for the truth of T (Sider, 2001, p. 36).

For any proposition P and any world W, if P is true in W, there exists something T in world W such that T’s existence strictly implies P (Lewis, 2001, p. 605).

In light of TM, consider the proposition <Caesar crossed the Rubicon>. Given TM and Ew, one may say that the truth-maker for the proposition is the actual Caesar crossing the Rubicon in 49BC. However, given TM and Pw, one cannot appeal to the wholly past object Caesar because according to the presentist, only presently existing objects exist, and Caesar does not presently exist. This apparent lack of truth-makers in a Pw generates the problem of truth-making. (For discussions of this problem see: Armstrong, 2004; Cameron, 2011; Caplan & Sanson, 2011; Keller, 2004.)

A popular solution to the problem of truth-making that many presentists adopt is to postulate some kind of presently existing ‘surrogate’ entity as the truth-maker. Presentists who favour Surrogate Entities Presentism (SEP) are many and varied. (For three different versions of surrogate entities style presentism, see Bigelow, 1996; Crisp, 2007; Ingram, 2016.) In place of the missing wholly past objects, these theorists postulate some kind of presently existing surrogate entity that stands-in for the entity that existed in the past but no longer exists today. Consider the singular proposition <Caesar crossed the Rubicon> again. SEP has it that this proposition includes presently existing surrogate entities as its propositional constituents. A surrogate entity ‘stands in place’ of the wholly past object that the proposition appears to be about. So, the semantic value of the term ‘Caesar’ is not the wholly past object Caesar but the semantic value for the term ‘Caesar’ is some kind of presently existing surrogate. Thus, when the truth-making relation is analysed, the necessary truth-makers for the truth-bearer are accounted for. A consequence of this view is that the presentist and eternalist disagree, not only about the existence of non-present entities but also about what makes a truth-bearer true.

The ontological consequences that follow from the view of time that the nature of time theorist takes are significant. Whatever ontology the best theory of time serves up is the ontology that one should adopt. Therefore, identifying the theory of time that provides the most comprehensive description of reality is an important endeavour. Gaining a better understanding of the ontological consequences that follow from theories of time will give rise to advances in our understanding of how the universe might be. Possessing the knowledge of what the universe consists of will provide a greater understanding of the world

that we live in. Is this world nothing more than a momentary slice of existent space-time with ever changing contents, or is the world temporally expansive and filled with every instantiated entity, from the beginning of time until the end? Answering these questions, and others, with due consideration of the consequences that follow from given theories of time will provide a basis for selecting the theory of time that seems most probable.

For an ontological theory to be adopted as the preferred theory, the consequences that follow from the theory must be consistent with the other fundamental metaphysical principles that a theorist subscribes to. If there is an inconsistency, then there is good reason to reconsider that theory. The good reason would be to determine whether, given other considerations, the conflict can be overcome, or whether the conflict is unresolvable and so the theory should be abandoned. Alternatively, one who still believes that the given theory is true may decide to abandon one or more of their deeply held principles and instead seek alternative principles that are consistent with the theory. For example, if one subscribes to the truth-making principle, that for every truth-bearer there is a truth-maker, yet the theory they are considering implies that there are no truth-makers for certain true propositions, then a conflict manifests. If no solution to the inconsistency is apparent, then the theorist must decide whether to abandon the truth-making principle or to abandon the theory.

Conversely, if the ontological consequences that follow from a given view are consistent with all other metaphysical principles that one subscribes to, then the implications of that view are consistent, and this provides a good reason to adopt that theory. In order to determine which theory of time best describes the world one must give due consideration to the consequences that can be deduced from the postulates of the given theory. In order to consider the consequences that are implied by a given theory, one must first determine the ontology that theory is committed to.

In this thesis, I will develop an ontological inventory of the different kinds of entities that are entailed by presentism. Along the way, for the purposes of a fair and transparent critique, I will contrast the presentist's ontology with the eternalist's ontology. In order to determine the temporal theorist's ontology their preferred theory must be 'unpacked' and the kinds of entities that they are committed to must be identified. I will approach this task primarily by considering truth-maker theory within the ontological landscape implied by presentism. Consequently, an auxiliary question that I consider is: given a specified theory of time, *T*, what entities are sufficient to make propositions true?

The central ontological question is "What is there?", For the ontologist to address this question they need to ask, "What criteria must something meet for it to be included in the inventory of what there is?"

These two questions drive at the heart of the debate within the philosophy of time. On reflection, it becomes immediately apparent that the presentist and eternalist will offer vastly different accounts of what there is. For one, the eternalist thinks that dinosaurs exist, they exist at a time earlier than the present, at a temporal distance some 200 million years prior to the present day. And, the presentist thinks that dinosaurs do not exist because there are no dinosaurs roaming the earth at the present time, and the present time is the only time the presentist thinks exists. So, whilst the presentist and eternalist agree that dinosaurs do not exist *now*, they disagree about whether there are existent dinosaurs in the world *simpliciter* or not. The list of entities that the eternalist says exist which the presentist denies is possibly infinite. It includes each past and future entity. Therefore, the presentist and eternalist not only disagree about whether past and future entities exist but they also disagree about what present entities exist. For example, the presentist postulates presently existing *abstracta* of a kind that the eternalist need not suppose exists. (For a thorough analysis of abstract objects see, Zalta, 1985.) The presentist asserts that there are presently existing abstract surrogate entities which 'stand in place' of the wholly past objects that our past tense propositions are about. The eternalist has no requirement to appeal to abstract surrogate entities so they are on firmer ground to deny that such things exist. Seemingly all that can be agreed upon as existing are a subset of all the present entities. Namely, presently existing *concreta*, and perhaps some kinds of *abstracta*, for example mathematical objects. Overall there is very little agreement between presentists and eternalists about what there is and what it is like.

Once a thorough inventory of entity-kinds is established and the ontological status of those entities analysed, the process of determining the consequences that follow can be undertaken. I will show that a range of problems become apparent when presentism is thought through to its logical end. For example, if only present objects exist, and one accepts the principle of relations, that for every relation there exist two *relata*, then one might think there can be no talk of cross-temporal relations. (For the classic statement of this argument, see Bigelow, 1996, p. 38.). Take as an example the fact of Jonathan Tallant admiring Marie Curie. Tallant presently exists but Curie does not. So, one might wonder how the relation of *admiration* could stand between Tallant and Curie. It seems that only one of the *relata* exist, therefore the principle of relations has been violated. As another example, if one thinks that a mental object must be directed at something, then one might wonder what a thought of the philosopher Socrates is directed at given that Socrates no longer exists. This generates a problem about connectedness between mental constructs and the world. As a third example, if Socrates does not exist, yet we can refer to Socrates one might think that a reference to a nonexistent object exists, implying that there are nonexistent objects. But this generates a problem for theorists who reject that there are nonexistent objects. Many such problems have been discussed in the literature. However, it seems to me that these problems are usually approached from the

viewpoint of an incomplete or misunderstood ontology. In order to properly deduce the consequences that follow from a given theory, one must start by carefully, accurately and honestly outlining and analysing the ontologies first. Only then can the consequences that follow be determined and considered.

There are a variety of different versions of presentism within the philosophy of time literature. According to the version that is adopted a distinct ontology may be determined. For example, according to earlier, simple versions of presentism ‘only present objects’ exist but this version of presentism leads to the problem of truth-making. One might choose to bite the bullet and deny that there is such a thing as truth or truth-making in order to retain simple presentism. On this account the ontology might just consist of present *concreta*. However, if one wishes to retain a theory of truth-making one might be inclined to adopt a more sophisticated version of Presentism according to which surrogate entities exist and they are the truth-makers. On this account the ontology includes *abstracta* as well as *concreta*. In this thesis I will consider three versions of presentism; Standard (or simple) Presentism (SP), Surrogate Entities Presentism (SEP) and Meinongian Presentism (MP) (for one of the most thorough versions of MP that has been outlined see, Paoletti, 2016.) An analysis of SP, SEP and MP will reveal that there is little agreement between theorists despite the fact they all claim to be presentists. I argue that central theses held by theorists within these presentist camps are misunderstood. For example, the term ‘Meinongian’ does not seem to be consistently applied by presentists. This is despite the fact that most presentists (excluding the Meinongian presentists of course) deny that the version of presentism which they represent is Meinongian in nature. I argue that this claim rests on a fundamental misunderstanding of Meinongianism. I will refute the claim that SP and SEP are not Meinongian and argue that SP and SEP are just different forms of MP. I argue that SP and SEP entail an ontological commitment to Meinongian nonexistent objects.

One reason that most presentists seem to reject Meinongian entities into their ontology is that the theory is just outright unpalatable to the ‘sensible’ philosopher. Meinongian entities are objects which do not exist, and many people think that it is not sensible to speak of there *being* such objects. Meinong has said of these objects:

There are objects of which it is true that there are no such objects (Meinong, 83.)

It is the contradictory nature of these kinds of entities that leads many to reject the notion that there are such things. It seems that people who reject an ontology that includes nonexistent objects think that the ontology of a respectable metaphysics should be restricted to existent objects only. Given this point, and my argument that SP and SEP are Meinongian it might seem that the eternalist has the upper hand in the philosophy of time debate. However, when one considers truth-making within eternalism, it is not clear that

eternalists can avoid an appeal to Meinongian nonexistent objects either. Take for example the statement that ‘Sherlock Holmes lives at 221B Baker Street’. The eternalist who subscribes to TM and takes <Sherlock Holmes lives at 221B Baker Street> to be a true proposition seems no better off than the presentist who takes <Caesar crossed the Rubicon> to be a true proposition. At face value both the presentist and eternalist seem to be appealing to entities, Sherlock Holmes and Caesar, which do not exist. (For an excellent analysis of the logic of referring to fictional entities see, Berto, 2017.)

Despite the similar problems that presentists and eternalists face, i.e., accounting for the truth-makers of true propositions, the problem of accounting for truth-makers for past-tensed propositions seems to be a greater problem than accounting for purported truths about fictional entities. Accounting for the truth of past-tense propositions is about accounting for reality, or the reality that has been at least. Accounting for fictional entities and their ilk is about accounting for something else other than reality. I argue that there is a pressing and essential need to account for all truth-makers of true propositions but accounting for truth-makers for truths about the past is more fundamental to one’s understanding of reality than accounting for truths about fictional entities. A respectable position for one to take is to deny that purported propositions about fictional entities are propositions at all. On this account there is no demand to identify the truth-makers, because there is no truth of the matter. The sentence ‘Sherlock Holmes lives at 221B Baker street’ might just turn out to be meaningless. However, the presentist cannot take the same approach with propositions declaring truths about the past. If propositions declaring truths about the past are meaningless then there would simply be no fact of the matter about what has taken place. Truth would be detached from reality.

My primary task in this thesis is to undertake a thorough analysis of versions of presentism in light of the Meinongian undertones lurking. I will consider versions of SP and SEP that purport to solve the problem of truth-making. I will analyse the truth-makers that are posited and contrast these kinds of entities with Meinongian nonexistent objects. I expect that my research will conclude that all forms of surrogate entities fall into one of two categories. I argue that surrogate entities either require nonexistent objects to ground the truths that they are purported to determine, or surrogate entities are not surrogates at all but rather are the wholly past but nonexistent objects that they are said to stand in place of.

If one thinks that any theory that appeals to Meinongian nonexistent objects should be rejected, and it can be shown that all versions of presentism are Meinongian, then there is good reason to reject presentism. However, if it turns out that eternalism is also Meinongian, then there is an equivalent reason to reject eternalism. Hence, some analysis of eternalism must be undertaken for fairness. In order to preserve presentism, one could reject any form of truth-making maximalism and adopt some other account of truth.

Or, one could maintain their commitment to truth-making maximalism and admit that they are Meinongian. As has frequently been raised in discussions about presentism, it may not be possible to maintain a commitment to both truth-making maximalism and presentism.

I have just argued that the presentist must reject truth-making, reject presentism, or admit that they are committed to Meinongian ontology. This conclusion should be reached when one analyses the triad of claims that the presentist self admits to subscribing to. These three claims are:

1. Only present entities exist (Presentism).
2. For every truth there is a truth-maker (Truth-making maximalism).
3. There are truths about the past.

If these three claims are true, then the presentist is forced to explain what the truth-makers are for past tense propositions. The simple presentist is led, almost inevitably, to admit that the truth-makers are wholly past nonexistent objects. Nothing that presently exists adequately fills the role of truth-maker for true propositions about the past, for example, propositions about Socrates. So, the simple presentist is a Meinongian. The surrogate entities presentist postulates presently existing *abstracta* as the truth-makers and thus claims to avoid the problem of truth-making. However, I argue that surrogate entities themselves are either nonexistent objects by another name or they necessarily point to nonexistent objects. Either way, the surrogate entities presentist turns out to be a Meinongian.

Given the arguments that I am presenting, that all versions of SP and SEP turn out to be Meinongian, a natural question to ask is should one therefore reject presentism? At this stage I can only posit two possible answers to this question. For one, it might be argued that MP is unacceptable as a metaphysical theory of time because the theory implies that there are nonexistent objects; and these kinds of objects may be deemed undesirable to include in any picture of reality. However, if this is the basis for rejecting presentism and eternalism proves to be Meinongian also, we are left with no theory of time that is acceptable. This won't do. This brings me to the second possible answer. If presentism is true and it is proven that the theory comes with Meinongian ontological commitments, then it might just be the case that we live in a presentist world which is partly constituted by nonexistent objects. So long as the verdict is out in the debate about which of presentism and eternalism is the correct theory of time, and, as long as the problem of truth-makers for propositions about fictional entities in eternalism remains unresolved, the best position for the die-hard presentist to take would be to admit to being Meinongian. In summary, the two possible conclusions are: 1) reject presentism because Meinongian nonexistent objects are unacceptable, or; 2) Accept presentism and admit to being Meinongian.

Objects and Entities

One point to clear up regards the terms ‘object’ and ‘entity’. Firstly, let me set aside any confusion that might arise due to another purported catch-all term, ‘thing’. It is generally accepted that every ‘thing’ refers to either ‘every object’ or ‘every entity’ (E.J. Lowe, 2005, p. 915). As such, one need only consider the terms ‘object’ and ‘entity’ as candidates for the preferred catch-all term. In much of the philosophy of time literature the term ‘object’ is commonly used to refer to anything whatsoever, but sometimes there are implied restrictions. For example, Berto (2012) restricts the definition of the term ‘objects’ to include only things that are property-bearers. Nevertheless, on the least restrictive account the term ‘object’ expresses a fully general ontological category. More strictly speaking, on the presentists account the term ‘object’ is often used to refer to anything whatsoever that has *being*. So, without a doubt a tree is an object and a person is an object. They are objects because they are concrete objects. That is, they have spatial extension, or more accurately they occupy a locus in space-time. But this rendering raises a question about non-*concreta*; are non-*concreta* ‘objects’? There is a need to account for non-*concreta* such as the idea of a tree or of a person. In addition, one might think that *abstracta* such as mathematical entities and sets exist but that they are not objects. Therefore, the accepted meaning of the term is not without disagreement. On one account just *concreta* are objects. For example, as per Berto, it might be the case that properties are not objects but the ‘objects’ that instantiate properties are properly referred to as objects. The disagreement continues. One might ask whether universals can be properly called objects. Given all this disagreement about what constitutes an ‘object’, overall, there is reason to be cautious about the implied meaning of the term within the literature. Another candidate for the catch-all term has been offered, which I now turn to.

On another account of a fully general ontological category, particularly due to Ingram (2019, pp. 17-19) following Lowe (1995, pp. 511-513), ‘entity’ is preferred as the all-encompassing term. Ingram distinguishes between objects that one might think of as ‘objects proper’, that is *concreta*, and other things such as “properties, events, other times (instants, moments, etc.), or facts (states of affairs)” (2019, p. 18). Ingram takes the term entities to be more inclusive. The term ‘entities’ should *always* be read as inclusive of *abstracta*, whereas the term ‘objects’ can have two readings. On one reading the term ‘objects’ merely denotes *concreta*. To confuse matters further there are those who hold the view that the term ‘entities’ only includes existent things whilst the term ‘objects’ is more general (e.g., Berto, 2012, p. ix.) Throughout my thesis I take no stance on which term should be preferred but I will need to explore the motivations behind the distinctions. I will mostly adopt Ingram’s entity terminology however I will still use the term objects. Wherever I refer to ‘objects’ or ‘entities’ I mean any *thing* that is constitutive of the ontology. I will specify

whenever I am referring to ‘objects’ or ‘entities’ as opposed to ‘nonexistent objects’ or ‘nonexistent entities’.

Ontological Commitment

The presentist commits themselves to the existence of present entities and nothing else. So, if one takes any instance of an entity, x , x is a present entity. For example, the presentist admits into their ontology things such as the black goat in my front paddock, the Eifel tower, Donald Trump and all the other present entities of which we refer. The presentist rejects the notion of some entity y existing at another time. There are, they say, no times other than the present, and so no y 's. As such, the presentist denies the existence of dinosaurs, the Crystal Palace, Tutankhamun and all the wholly past entities of which we refer; as well as all the past and future times that we speak of. One might think of presentism as a theory that delivers a form of temporal minimalism according to which only a minimal number of spatio-temporal entities exist.

Given the conditional claim, ‘if presentism is true, then presentists are committed to x ’, the question of the presentist’s ontological commitments is firstly a question in *meta-ontology*. Before one can commence one’s ontological enquiry of presentism a criterion for ontological investigation must be established, and this is the task of the meta-ontologist. In the case of *time* a suitable criterion for ontological enquiry must be capable of being applied to alternative theories of time. We are seeking a criterion that can be applied across the board and will determine the ontological commitments of any given theory of time. (See Sider, 1999 for a discussion of ontological commitment within the philosophy of time.) Once such a criterion is established one can get into working at the coal-face, ontology proper. Throughout my thesis I will undertake both meta-ontological and ontological enquiries. The overarching meta-ontological theme focuses on establishing a criterion for ontological enquiry. The kind of criterion I shall focus on comes from truth-making theory and can be broadly construed as the question of what makes a truth-bearer true. (For fine discussions of this topic, see Armstrong, 1989, and; Bigelow, 1988.) The chosen criterion will be some version of a principle of truth that is acceptable to presentists and eternalists alike. This criterion can then be applied in analysing presentism in particular, but eternalism also, to determine what entities the temporal theorist is ontologically committed to.

The question of ontological commitment according to a specified theory of time might at first pass seem obvious. The presentist is ontologically committed to all the present objects and the eternalist to past, present and future objects. But this is too simple of an analysis. Consider the problem of truth-making that I have introduced. One solution put forward by presentists is that truth-makers are abstract surrogate entities

(E.g. Bigelow, 1996; Crisp, 2007; Ingram, 2019). In this case the presentist's ontology includes *abstracta* of whatever kind the surrogates are purported to be. Furthermore, consider fictional entities, such as Sherlock Holmes for example. (For an excellent discussion of fictional entities in metaphysics see Thomasson, 1998.) The fictional realist, be they presentist or eternalist, is committed to an ontological landscape that includes such entities. So, although there is a simple answer to the ontological inventory served up by presentism and eternalism this simple answer is far from a complete description of ontological commitments. In order to consider the logical and intuitive acceptability of each theory, a complete taxonomy of ontological commitments must be established.

Generating a taxonomy of entity kinds provides useful data for analysis. There is a common discussion in metaphysics about the importance of parsimony to the viability of given theories. One might wonder whether parsimony is a valuable quality to strive towards. (For discussion of the virtues of parsimony see, Bourne, 2006; Tallant, 2013.) There is fairly broad consensus that quantitative parsimony is not so important whereas qualitative parsimony is. David Lewis sums this view up:

I subscribe to the general view that qualitative parsimony is good in a philosophical or empirical hypothesis; but I recognize no presumption whatever in favor of quantitative parsimony (1973, p. 87)

Consider this. Theory A claims that there are 100 objects in the world, and they are all of the same kind. Theory B claims that there are 100 objects in the world, but they are of two different kinds. If one wishes to be parsimonious then, all other things being equal, theory A should be preferred. Even if theory A implies that there are 1,000 objects in the world and theory B implies that there are 100, if one values parsimony then one should adopt theory A. This explanation draws out the higher value that is placed on qualitative parsimony over quantitative parsimony, although there are some who argue that quantitative parsimony has its merits (for example, see Tallant, 2013.). Nevertheless, most think that it doesn't really matter how many of a kind of entity exists. The important issue is how many kinds there are. I also adopt this view. Throughout my thesis I will consider ontological parsimony within presentism and eternalism. I will seek to determine whether one theory is more qualitatively parsimonious than the other, and if so, whether this is a good reason to adopt the most parsimonious theory.

Introducing (5) Problems within Presentism

In this section I will briefly introduce five problems that presentists face. These problems are: the problem of truth-making, the problem of reference, the problem of cross temporal relations, the problem of changing truth-makers, and, the Meinongian problem. The first three problems are commonly discussed in the literature so, I will firstly rehearse these arguments in their standard forms. Following from this, I will undertake a deeper analysis of the problems with the intention of demonstrating that the consequences that follow from possible solutions to these problems have deeper ontological implications than previously admitted. Rigorous discussion and analysis of the final two problems is generally lacking in the literature. As such, I will set out these problems and explicate versions of them that can be adopted by others and will be useful for future discussion. I will then continue with an analysis of possible solutions that presentists could adopt and discuss the consequences that follow from these solutions.

Much of the analysis of presentism focuses on the problems that the theory is alleged to face (E.g., on outlining problems, see Sider, 2001, pp. 11-52.) As I have briefly mentioned in the introduction, presentist's face a range of problems in defending the theory. (On solutions to problems, see Bigelow, 1996; Crisp, 2007; Ingram, 2018; Markosian, 2004.). Most of these problems take some form of the complaint that the referents of terms denoting wholly past objects appear to be missing from the presentist's ontology. The most commonly laid complaints include the first three problems I will analyse: the problem of no truth-makers; the problem of reference (within singular propositions), and; the problem of cross temporal relations. Each of these problems can be drawn out via the following example. Consider the proposition <Marcus Aurelius was kinder than Julius Caesar> (P). On the first charge, P lacks obvious truth-makers. Given that both Marcus Aurelius and Julius Caesar are long dead, it is not clear what presently existent entity or entities could be the truth-maker for P. As such, the complaint is that presentism implies a world which lacks truth-makers for propositions about wholly past objects. On the second charge, it appears as though the referents of the singular terms 'Marcus Aurelius' and 'Julius Caesar' within P are absent. There are no obvious entities to point to as the presently existing referents for these terms. Subsequently, a problem of reference arises. On the third charge, if it is the case that Marcus Aurelius is kinder than Julius Caesar then a relation stands between Marcus Aurelius and Julius Caesar. Namely the relation of 'being kinder'. According to the principle of relations, for a relation to stand between two entities those two entities must both exist (Bigelow, 1996, p. 39.) Given that neither Marcus Aurelius or Julius Caesar presently exist, it seems that no relation could exist, hence the problem of cross-temporal relations. These are the most common complaints laid against presentism, but they are not the only complaints.

In addition to the common complaints are two further, less widely discussed problems. The first of these other problems I will consider is the problem of distinct truth-makers at distinct times for what is purported to be one and the same truth. I follow Davidson (2013) in calling this *the problem of shifting truth-makers*. There are several ways to frame this problem up, depending on the ontological explanation provided within a given version of presentism. Take as an initial example the following proposition <Marcus Aurelius was raised by his grandfather> (P1). For the purposes of a rudimentary explanation, assume that y is a presently existing entity and y is the truth-maker for P1 at the present time, $t1$. At the time that Aurelius was alive, t , the obvious truth-maker for P1 was Aurelius and the state of affairs that was Aurelius being raised by his grandfather, call this truth-maker x . Therefore, at t , the truth-maker for P1 is x . At $t1$ the truth-maker for P1 is y . As such, the truth-maker for the very same truth, P1, has changed from x at t to y at $t1$. Yet, a great deal of argumentation is required to deliver the kind of conclusion that x is equivalent to y . There is little discussion of this problem within the literature although, a brief introduction to the problem where it is referred to as the ‘shifting truth-maker objection’ has been introduced by Matthew Davidson (2004; 2013.) Davidson calls the shift in truth-makers that takes place in a Pw ‘troubling’ (2013, p. 160). At a face-value reading it seems, at the very least, intuitively unappealing to accept that the truth-maker for a truth will change over time. After all, if the truth-maker has changed, who is to say that what is being reported as true has not changed also. This problem is deserving of rigorous analysis.

The second less widely discussed problem I consider relates to a common repudiation by presentists of accusations of Meinongianism. (For the preeminent statement of Meinong's views, see Meinong, 1960.) The often-made claim is that presentism (excluding Meinongian presentism, of course) is not Meinongian (for example, see Ingram, 2019, pp. 24-25.) However, little attention is given to what is meant by the term ‘Meinongian’. I argue that denying Meinongianism has become a reflexive move for presentists. In order to determine that presentism is not Meinongian a thorough definition for the term ‘Meinongian’ must be provided. (For thorough discussions of the principles of Meinongianism, see Findlay, 1963, and; Hinchliff, 1988, 1996, 2010; Lambert, 1983; Perszyk, 1993; and, for a dictionary length analysis see, Sylvan, 1980.) Following from this, one must analyse the ontology entailed by their theory and contrast this with the ‘competing’ Meinongian explanation. Only after a thorough definition of ‘Meinongian’ has been provided can a given version of presentism be deemed to be either Meinongian or not. Once presuppositions and reflexive rejections are set aside, there is a great deal of similarity between the surrogate entities presentist’s line of thinking and that of the Meinongian. It would be a mistake to deny Meinongianism based on misunderstood premises. Deep analysis of the problems motivated by my critique should be a pressing task for presentists for at least three reasons. Firstly, because presentism naturally evokes thoughts of all the past objects, which are now nonexistent. Secondly, one might wonder whether some of the kinds of surrogate

entities postulated meet the criteria for being deemed nonexistent themselves. And, thirdly one might ask whether such entities somehow imply the existence of other nonexistent objects. For example, if one takes the ‘pointing beyond’ criticism seriously, one might suppose that surrogate entities entail a relation to nonexistent objects. (For a thorough discussion of this criticism, see Crisp, 2007, and; Sider, 2001, pp. 39-41) All these reasons should motivate the reader to wonder whether presentists are begging the question when they assert that presentism is not Meinongian. I call this the Meinongian problem.

In order to elucidate the Meinongian problem consider the dialectic that usually occurs. Firstly, the uninitiated, imagining a Pw, think of a past dinosaur which no longer exists, and they assume that they are thinking of a nonexistent dinosaur, *ergo* presentism is a Meinongian theory they say. But this is not what is going on at all say the initiated. In the Quinean univocal sense of the term ‘exists’ (Quine, 1953) the initiated say *there are* no nonexistent objects in a Pw. This is usually how the dialectic goes. The term ‘Meinongian’ is associated with nonexistent objects and “serious” presentists are not willing to admit such entities into their ontologies. (See Bergmann, 1999, and; Davidson, 2000 for discussion of serious actualism and serious presentism.) Serious presentism is akin to the modal doctrine of serious actualism. According to this view, necessarily, if an entity has a property or bears a relation, then that entity exists. Similarly, according to serious presentists if an entity, x , has a property or bears a relation, then that entity exists, and, consequently, due to the principle of relations, any entity that stands in a relation to x also exists. Presentists who deny that relations are existence entailing are not serious presentists. The ‘non-serious’ presentist who might reject the principle of relations, is therefore accused of being Meinongian. And this is usually as deep as the analysis of Meinongianism goes.

As it stands, most theorists give little attention to what it is that they are rejecting. Broadly speaking, a Meinongian theory is one that admits nonexistent objects into the ontology. For Meinong, everything is an object and so even things that one ordinarily supposes do not exist are objects. This stands in opposition to a ‘serious’ ontology that denies that nonexistent things are entities at all. For example, just as the black goat in my front paddock is an object, according to Meinongian theory so too is a unicorn, Sherlock Holmes and even the round-square. Quantifying unrestrictedly, every-thing whatsoever that can be grasped by the mind occupies a mode of being, in some cases a mode of non-being. Furthermore, even the things that cannot be thought of are objects and occupy a mode of being. In my thesis I will investigate Meinong’s *theory of objects and* undertake a deep analysis of distinctions and similarities between the postulates of this theory and the postulates of versions of presentism. I hypothesize that my analysis will generate arguments which determine that the versions of presentism considered are, contrary to the assertions of the theorists that espouse such theories, Meinongian in nature.

As a further consideration within the broader topic of the Meinongian problem I will explore whether different temporal theorists have different conceptions of Meinongianism. If they do, then they are rejecting distinct ontological commitments. It may turn out that all presentists mean the same thing when they deny being Meinongian. In this case, there is no problem regarding the possibility of distinct ontologies implied by the semantics. However, if it is the case that different meanings are implied by different theorists then a further Meinongian problem arises. Namely, what specifically is it that the presentist is denying? And furthermore, although presentism might be incompatible with some definitions of ‘Meinongian’, perhaps it is compatible with other definitions of the term. As such, the presentist’s blanket denial of Meinongianism should not be so readily accepted.

The problem of truth-making

TM sets strict demands for a theory of truth. (For discussions on the demands truth-making entails, see Keller, 2004; Lewis, 2001; Merricks, 2007.) According to TM there must exist a truth-maker for every truth-bearer. If no truth-maker can be found for a given truth-bearer, then that truth-bearer does not represent the truth. Recall what is required to make the proposition <Caesar crossed the Rubicon> (P) true. For P to be true there must be some entity (or entities, possibly a state of affairs), *y*, that necessitates the truth of P. The eternalist can appeal to the actual Caesar crossing the actual Rubicon in 49BC as the truth-maker. But, the presentist cannot. Nevertheless, the presentist (who is a truth-maker maximalist) must still provide an explanation about what the truth-maker is, i.e. in the absence of Caesar and the Rubicon in 49BC being available to call upon. However, given the present state of the world and the entities that it contains there is no obvious entity available for this task. For the presentist there appears to be no presently existing truth-maker. Hence, the problem of truth-making in presentism.

A point to raise briefly here is that most presentists, and many eternalists for that matter, reject the strong version of truth-maker maximalism that I have outlined. (For a good argument against truth-maker maximalism, see Milne, 2005.) Considering the problem of truth-making this resistance is no surprise. This rejection of TM has not led many to reject truth-making altogether though. As such, other forms of truth-making have been recommended and this has led to alternative accounts of what constitutes a truth-maker. I now move to consider an alternative account that has arguably become the preferred account that presentists now adopt.

The Supervenience Problem and that truth supervenes on being.

It is a fact that chimeras do not exist. As such, there are no chimeras with which to associate the term 'chimera'. Therefore, on a strict formulation of TM there appears to be no way to evaluate the truth of these kinds of negative existential statements. For the proposition <chimers do not exist> to be true by the lights of TM there must be something in the world, a truth-maker, that makes it true. But there appears to be nothing in the world that could be the truth-maker for this proposition. Nevertheless, the very fact that there are no chimeras is what makes one suppose this is a true proposition. And this fact motivates an alternative version of the truth-making principle.

To resolve the problem TM faces, which I have shown is generated by negative existential statements, an alternative version of TM has been proposed, most notably by John Bigelow (1988). This version of TM is the principle that truth supervenes on being (TSB). TSB only requires that what is true sits in a relation of supervenience on the world in some way. Bigelow (1996) sums this up:

There is a deep assumption behind much of our thought, that every truth (or at least, every simple truth about how one thing is related to another) requires a truthmaker: whenever something is true (or at least, every simple truth about how one thing is related to another), there must exist some thing or things in the world in virtue of which this is true. As I prefer to put it in general: truth supervenes on being-there could not be a difference in what is true unless there were a difference in what exists (p. 38).

And Sider (2001) summarises it:

... truth is supervenient on being: what is true supervenes on what objects exist, what properties those objects have, and what relations they stand in. [TSB] [...] The supervenience principle does not require the existence of a fact that there are no unicorns; it merely requires that since 'there are no unicorns' is true in the actual world, it must also be true in any world in which the same objects exist, those objects instantiate the same properties, and those objects stand in the same relations as they do in the actual world' (p. 36).

David Lewis (2001) has called the supervenience principle "a weakened version of the Truthmaker Principle" (p. 610). This weakened version of TM, TSB is purported to avoid the problem of no-truth-makers for negative existential statements. TSB does not require there to be chimeras in the world to make the proposition <chimeras do not exist> true. TSB only requires that what is true supervenes on what exists; namely the entities in the world (including the world itself) and the properties and relations expressed by

those things. According to this understanding the fact that the world does not contain chimeras is sufficient to 'make' the proposition <chimeras do not exist> true.

Supervenience is a relation between two entities. For example, if one says that x supervenes on y one is making a claim about the relation between x and y . Specifically, that x is dependent on y in some way. As such, one can claim that a proposition is true in virtue of some entity, y . Put another way, the truth being reported, x , is necessitated by y . Consequently, any change in y will result in a change in x . On this account the truth that there are no chimeras supervenes on the world, because the world is the kind of place that contains no instantiations of chimeras. It is the very fact of the world lacking chimeras that makes the proposition <chimeras do not exist> true. However, it is not immediately apparent that this approach provides a solution to the problem of truth-making for propositions about wholly past objects. For example, the proposition <Caesar crossed the Rubicon> still appears to lack truth-makers, even of the weakened kind that are demanded by TSB.

If one accepts TSB then one accepts the following two claims: firstly, that if the proposition <Caesar crossed the Rubicon> is true it is true in virtue of the way the world is and the things that are in the world. Secondly, if it is false that <Caesar crossed the Rubicon> it is false because the world is not such that Caesar crossed the Rubicon and the world does not contain the things that make it a world where this proposition is true. If this proposition is true and TSB is true, then it follows that the world must be such a place that Caesar did cross the Rubicon. But, given that the state of affairs that was Caesar-crossing-the-Rubicon (CxR) and the objects that made up this state of affairs have long since passed, one might ask what it is that this truth supervenes on. (In other words, what is the truth-maker?)

If one is an eternalist then one is not concerned by CxR's temporal distance. The eternalist thinks that all past and all future times exist just as the present does. And so, the eternalist considers the subvenient base (truth-maker) to be CxR - just located at a temporal distance. If one is a presentist a problem arises. The presentist thinks that only the present exists and so on a face-value reading it seems that the world lacks the required subvenient base to make the proposition true. The presentist cannot appeal to CxR to act as the subvenient base (truth-maker) for the truth-bearer <Caesar crossed the Rubicon>. And, no other presently existing state of affairs, or even the world itself, are obvious subvenient bases for this past tense truth.

The problem generated by this lack of an obvious subvenient base is the supervenience problem. It is very similar to the truth-maker objection, yet subtly distinct. One solution to the supervenience problem that presentists have adopted is to posit presently existing *abstracta* as the subvenient base (to act as the truth-makers). The best-known versions of this strategy include John Bigelow's (1996) Lucretian

properties, Craig Bourne (2006) and Thomas Crisp's (2007) versions of ersatz presentism and David Ingram's (2016, 2018, 2019) thisness presentism. (For earlier discussions of thisness presentism, see Adams, 1979; 1981, 1986; Diekemper, 2015; and for a brief discussion of the topic under the name of 'haeccietist presentism', see Keller, 2004.) It is worth reviewing what these authors have said. Bigelow (1996) has said:

All that is present are matter, vacuity, and properties and accidents of these; and among these properties and accidents are some which are expressed in language by using the past or the future tense. We do not need to suppose the existence of any past or future things, however, only the possession by present things of properties and accidents expressed using the past or future tenses (p. 46).

And Crisp (2007) has said:

"I [...] think[...] of a "time" as a certain sort of maximal abstract object: intuitively, an abstract representation of an instantaneous state of the world..." (p. 99).

Finally, Ingram (2019) has expressed similar sentiments with his view when he has said the following:

I propose thisnesses constitute all singular propositions. Hence, singular propositions about the present are also partly constituted by thisnesses (not present objects) (p. 10).

The approach taken in each of these strategies is to appeal to some presently existing abstract entity and claim that entity is the subvenient base (truth-maker). For example, Bigelow would say that the truth-maker for the proposition <Caesar crossed the Rubicon> is the presently existing world property having been a place where Caesar crossed the Rubicon (Bigelow, 1996). Crisp has appealed to a presently existing ersatz B-theoretical construct of propositions which represents the world, past and present, and which contains the necessary truth-makers, propositions (Crisp, 2007). And, Ingram has appealed to presently existing thisnesses of wholly past objects as the subvenient base (Ingram, 2016, 2018, 2019). Given the solutions outlined it is clear that by and large presentists feel the need to adhere to TSB. There is an apparently universal desire to provide solutions that accept that what is true is so in virtue of something in the world. And so, any theory of presentism that is acceptable must, seemingly, adhere to TSB. On the contrary, any version of presentism that does not adhere to TSB is to be rejected. In light of this requirement and given the various forms of *abstracta* that are postulated, it seems prudent to conduct further analyses of TSB. It seems worthwhile to consider what the 'being' part of the truth-supervenies-on-being relation entails. Or put another way, one might ask what kinds of entities are acceptable subvenient bases.

The supervenience relation is straight-forward enough: x supervenes on y in the case that x 's being is dependent upon y 's being, and; x could not have been such unless it were the case that y had been such in the first place. Given this understanding, one can assert that y comes before x and x would not have come into being were it not for y 's having been in the first place. There are two points to note here. Firstly, is the question of x 's being. The fact of x being is generally just admitted *ipso facto*. But analysis is required to ensure that x is a respectable entity to admit into one's ontology. Secondly, x 's being such is entirely dependent upon y 's being such. Consequently, if it is the case that y is not such, or that there is no y , then the nature of x , or even x 's being itself must be questioned. If x is dependent upon y and y is shown not to exist, then one might think that x cannot exist either. Alternatively, one might take the Meinongian path and say y is a nonexistent entity and that the supervenience relation stands between an existent x and a nonexistent y .

In my thesis I will consider the problem of truth-making and motivate the need for surrogate entities presentism. I will argue that TSB is preferred to TM as the preferred principle of truth-making for the presentist to adopt. Nevertheless, my analysis of TSB will show that even though TSB makes less stringent demands on the truth-making relation within presentism than TM does, the presentist is no better off. Although TSB provides a solution to the problem of negative existential statements it still fails to provide the required subvenient base for past tense truths.

Kierland and Monton (2007) outline another version of presentism, *brute past presentism*, that they argue solves the supervenience problem. According to this view, one should just accept that the past is brute and an 'aspect' of the present. Kierland and Monton argue that the past has a 'shape', and, for example, this shape is such that <Caesar crossed the Rubicon> is true. On this view, the past is similar to something like a brute fact, primitive and not explained by other facts (For more information about brute facts see, Vintiadis & Mekios, 2018.) I will consider this argument with a view to rejecting it. It seems that this approach is just too good to be true. Kierland and Monton's approach is to summons brute entities, *shapes*, into existence and claim that these brute entities are truth-makers. However, beyond solving the problem of truth-making there seems to be little justification for believing in such entities. I argue that this is not an adequate solution.

Being a truth-maker

Throughout this thesis, I shall aim to provide support for the view that one should adopt some version of the supervenience principle of truth. As John Bigelow puts it, ‘truth supervenes on being - there could not be a difference in what is true unless there were a difference in what exists’ (1996, p. 38). This principle is attractive because if truth did not supervene on being then there would be an apparent disconnect between what is taken as true and the way the world is. And, if what is taken as true is disconnected from the things in the world there would be no way to know if what is being reported as true has anything to do with the way the world is. For example, one might claim that <Caesar crossed the Rubicon> is a true proposition but the truth of this proposition would be unrelated to the world being such that Caesar crossed the Rubicon. In effect, there would exist a truth, ‘Caesar crossed the Rubicon’ and there would be the present world. But there would be no reason to claim that this proposition is true because Caesar crossed the Rubicon. If truth is unrelated to the world via some supervenience or truth-making relation, then perhaps the proposition would be true even if Caesar did not cross the Rubicon. And in this case, one’s conception of truth would need to be altogether reconsidered.

In order to address the question of *being* in the truth-making relation, one must first establish what is intended by the term ‘truth’. As I have alluded to above, truth is a relation that stands between a truth-bearer and a truth-maker. (For excellent discussions on the nature of truth-makers, see Armstrong, 1989.; Bigelow, 1988; Jago, 2009; Restall, 1996; Rodriguez-Pereyra, 2006; 2009.) In the case that a proposition is false no relation (of truth) stands between the two. A false proposition is not a ‘truth-bearer’ and therefore, obviously no truth-maker for it exists. So, *truth* is a relation. Given the principle of relations, if the relation of truth exists, then so too must the two *relata* on either side of the relation. From this analysis, it is the case that at least three entities exist: *relata a*, *relata b*, and the relation itself. *Relata a* is the truth-bearer, or proposition in this case. The *relation* is an abstract entity of its own unique kind. And, *relata b* is the truth-maker, which might be argued to be a concrete object or more likely for the presentist it might be argued to be some abstract property. On this account there are at least three *kinds* of entities admitted into the ontology. On the one hand this raises the question of *kinds* of entities that should be admitted into the ontology full stop. But, on the other hand is the question of the *kinds* of entities that should be accepted as truth-makers. This last point is particularly pertinent given the problem of changing truth-makers I have sketched.

The Problem of reference

Socrates was a snub-nosed philosopher. This can be represented as a temporal logical expression thus:

Where P = It was the case that..., S = Socrates, N = snub nosed, and, R = a philosopher:

$$P \dots (\exists x)Sx \& Nx \& Rx$$

P is the past tense operator. S, N and R are predicates associated with x . And, x is the bound variable. It represents the entity that is being predicated over. But x does not just represent an entity. x sits in a relation to the entity that it represents necessitating that there is an entity. x always refers to an entity. It must. If no reference is performed, then no truthful singular proposition about x can be constructed. In other words, if 'Socrates' does not refer to something, then no truthful proposition about Socrates can be constructed. Given that we accept that there are many truthful singular propositions about Socrates it must be the case that 'Socrates' refers to something. Furthermore, it better be the case that the thing which is referred to is also snub-nosed and a philosopher. (For discussions of the problem of reference, see Fitch, 1994; Merricks, 2011, pp. 64-67; 2015, pp. 170-173.)

Considering x and the demand for x to be snub-nosed and a philosopher the presentist is faced with a problem. The obvious choice, Socrates, is long dead and so Socrates cannot be the referent of x . Furthermore, there are no other obvious presently existing candidates that could be the referent of x . Thus, a problem arises for the presentist. Call this the problem of reference. Bound variables, which represent wholly past objects, appear to have no referents.

A simple response to the problem of reference might be to say that there exists a cast of Socrates head and snub-nosed face as well as written records that Socrates was a philosopher, and these give rise to the truth of the predicates of x . But this response says nothing of x . Taking the referent of x to be a cast or a document is to misunderstand the nature of propositions. This is the point of writing out the logical expression above, to represent as accurately as possible the state of affairs under consideration. The kind of simplistic answer I have outlined will not suffice because the objects that are discussed, a cast of Socrates head for example, merely generate an act of reference themselves. That is, 'the cast of Socrates head' refers to 'Socrates'. So, one might wonder what sort of answer is sufficient.

The object that is the referent of x must meet several criteria to be admitted as a *terminal* referent or the ontological *ground*, i.e. the final point of being in any referential chain of entities. (For a discussion of 'grounding' in presentism and eternalism, see Baia, 2012.) For one, x must be Socrates. This is what the

logical formula expresses, $(\exists x)Sx$, ‘there is an x , such that x is Socrates’. Each additional predicate entails the same requirement. I.e. Nx states that x is snub-nosed, and Rx states that x is a philosopher. The logical expression is such that it cannot be read as merely conveying this meaning without entailing an existential relation between the referent of the variable x and its predicates, S , N , R .

The Problem of Shifting Truth-makers

Suppose that the proposition <Donald Trump is a compulsive liar> (Q) is true. It is true in virtue of some state of affairs such that Donald Trump is a compulsive liar. Therefore, the proposition stands in some relation to the world. On a nominalist-presentist reading, one would say that the truth-maker is Donald Trump and his persistent dishonesty. Call this truth-maker w . But, in 100 years, when Trump is long dead, w cannot be the truth-maker because w will cease to exist. The nominalist-presentist must deny TM or come up with some other story about what the truth-makers are, perhaps artifacts that will exist such as video clips and articles about Trump, call the artifacts as truth-makers x . However, this approach is not a favoured one. Artifacts seem to make for poor truth-makers. After all a video clip could be manipulated and an article could be false. There might be subtle differences or even greater and greater changes as time progresses, until the artifacts that remain as truth-makers are totally corrupted. It’s easy to imagine how the truth of the past would be reported incorrectly due to insufficient, or false truth-makers being thought the right truth-makers. Or, a proposition might be true but not made so by the truth-maker that is said to make it so. This problem arises because distinct truth-makers make true distinct truths. This line of thinking generates a further question: Can truth-makers change, or ‘shift’ as per the terminology introduced by Davidson (2004, 2013)? I argue that they cannot. I will consider whether a shift in truth-makers, for example from w to x , equates to a shift in that which is reported as true. If it does, then a shift in truth-makers is unacceptable, because the state of affairs being reported on cannot change, at least so I suppose. So, if there has been a shift in truth-makers then Q must be read as either a false proposition or as a true proposition but not because of any relation to x . In other words, the theory has gotten the truth-maker wrong.

In opposition to the nominalist position, the Platonist-presentist postulates abstract objects. (For a thorough discussion of platonism and serious presentism, see Baron, 2013.) This is the variety of presentism that is the focus of my thesis, *abstracta* being essential to SEP and MP. The Platonist-presentist, particularly on the surrogate entities approach, postulate *abstracta* as truth-makers. One might take the present truth-maker to be w or one might take it to be an abstract entity that is somehow related to w , call this entity y . Obviously y is distinct from w so on this reading there has been a shift in truth-makers. If y is always the truth-maker then this offers a more consistent picture, but I argue that y at the present time t is distinct from

y at a later time tI , so a change is still apparent. In addition, one must be satisfied that y itself is acceptable more generally given other considerations. And, there is also the question of why w wouldn't be the truth-maker for Q in the present tense scenario. Given this picture it seems that a shift in truth-makers *always* takes place in presentism. Therefore, the pressing task is to consider whether shifting truth-makers are acceptable within a theory of truth. If they are not, this might be reason enough to reject most versions of presentism.

The Meinongian Problem

One who adopts a Meinongian theory accepts nonexistent objects into their ontology. Such views adopt some version of the claim that there are objects of which it is true that there exist no such objects (see for example, Findlay, 1963.; Lambert, 1983; Meinong, 1960; Parsons, 1980, 1982; Perszyk, 1993). For example, whilst it is true that unicorns do not exist, the Meinongian thinks that there is an object of which the term, 'unicorn' refers, namely a nonexistent unicorn. It is just the case that this object does not exist. This view motivates many questions, (for example, what is the distinction between a nonexistent entity and an existent entity, and; is it contradictory to say that *there is* something which does not exist?) Whatever answer to these questions that one arrives at, it is not clear that all of those who use the term 'Meinongian' mean the same thing when they apply it. Before getting to the point of answering the questions that arise it is crucial to first determine the specific sense in which the term 'Meinongian' is being used.

If a 'Meinongian' is someone who accepts nonexistent objects into their ontology, then a non-Meinongian is someone who does not. Yet, even within these two camps, there is disagreement. Some Meinongians think that existence is merely a property that some objects possess, and others do not (for an example of this view see, Berto, 2012, pp. viii-ix; Paoletti, 2016, p. 6; Yourgrau, 1987, p. 89.) Whilst other Meinongians do not agree that existence is a property. (For arguments along this line of thinking see, Williamson, 1998, and; Zalta, 1985, 1988). Such views are usually motivated by one of two views. The first motivation is the Kant/Hume view that *existence* as a predicate adds nothing to the explanation of an object (e.g. one might wonder what the difference is between a black goat and an existent black goat. One might think that to be a black goat an object must already exist, so what is the point of predicating existence.) (Hume, 2007; Kant, 1998.) The other motivation is the objection from Frege and Russell based on the contradiction that arises from negative existential statements (e.g. the claim that 'chimeras do not exist' implies there is some object, chimeras, that have the property of non-existence (Frege, 1953; Russell, 1905; 1937.) Most non-Meinongians, particularly of the Quinean lineage of thought, argue that there is only a univocal sense of the term 'exists' and that distinguishing between what there is and what exists is wrong.

Furthermore, even some Meinongians will accept this univocal sense of ‘exists’ yet still hold that there are nonexistent objects (for this style of view see, Paoletti, 2016.). So, it is not at all clear that those who use the term ‘Meinongian’ have the same thing in mind when they apply it.

When considering the problem of truth-making that arises for the presentist one should rightfully be drawn to considering whether some version of Meinongian theory can solve the problem. For example, take the proposition <Caesar was 1.74m tall>. It would be no violation of the presentist’s thesis statement, ‘only present entities exist’, to claim that the truth-maker for this proposition is the nonexistent Caesar. The ‘fit’ between presentism and Meinongianism to answer the problem of truth-making almost seems too good to be true. In place of all the missing truth-makers for past-tense truths, the presentist can simply posit nonexistent wholly past objects. Given the natural ‘fit’ between presentism and Meinongianism, one might wonder whether the best strategy for the presentist might just be to adopt Meinongianism. Yet, most presentists resist this move. The idea of there being things that do not exist seems to offend many. Meinongian nonexistent objects are disregarded in respectable versions of presentism.

Despite their resistance to a mode of nonbeing, many respectable presentists call upon various forms of *abstracta* to solve the no-truthmakers problem (e.g., Bigelow, 1996; Crisp, 2007; Ingram, 2016, 2018; 2019.) The kinds of *abstracta* postulated include monadic world properties, ersatz ‘other’ times and thisnesses. Given the unusual nature of these abstract entities and the alternative (to *concreta*) ontological modes that they occupy one might wonder how respectable these versions of presentism really are. The respectable presentist is not willing to countenance nonexistent objects due to the mode of being that they occupy. But they are willing to countenance various kinds of unusual *abstracta*. As such, more must be said to both define and distinguish these various kinds of entities and the alternative modes of being that they occupy.

Statement of Research Questions

Primary research question:

- Given a theory of time, T , what entities, x , are constitutive of this world, and what are the ontological consequences that follow from positing x ?

Auxiliary research questions:

- If x is an entity included in the ontology, given T what is the nature of x ?
- Once semantic differences are accounted for are SP and SEP nothing more than alternative interpretations of MP?
- Should the ontologies delivered up by versions of T be conceived of differently to common understandings, when interpreted under the lights of other metaphysical theories, particularly Meinongian theory?
- What do presentists mean when they use the term ‘Meinongian’? And, do presentists mean the same thing as ‘true’ Meinongians when they apply the term? Lastly, is the way the term is applied consistent with the theses set out in Meinongian theory.
- What constitutes a truth-maker?

Methodology & Forms of Analysis

Metaphysics is the study of the fundamental nature of reality. Of course, one might think they should go out into the world and test the things they find there to answer the questions related to this pursuit. But to take this approach would be to crossover into physics. Aristotle called metaphysics ‘the first philosophy’, it is the study of the fundamental principles that underlie our best physical theories. All physics must be underpinned by robust metaphysical theories or else physical theories are baseless. The metaphysician undertakes research via literature review, critical analysis, deep contemplation and sound argumentation. Fortunately, these tasks can all be undertaken from the armchair. Most of my reasoning will be qualitative in nature.

In undertaking my thesis, I will utilize the methods of Western Analytic Philosophy. I will conduct conceptual investigations of established theories of time, and Meinongian theory, and apply logical analysis of the concepts and principles that underlie these theories. I will work to elucidate various versions of theories of time by identifying apparent problems within the theories. I will go on to identify logical

inconsistencies and consider the logical forms of any problematic arguments. Following my deep analysis, I will apply deductive reasoning to generate arguments that support the conclusions I have reached.

Given that I will be considering concepts such as ‘existence’, ‘nonexistence’, ‘entities’ and ‘*abstracta*’, and due to the role of intuition often appealed to in the philosophy of time I may decide that it is worthwhile to undertake some experimental philosophy. Firstly, I will review the scant empirical data that is available resulting from other similar studies (e.g. Miller, Sydney). I will need to determine whether the available data is sufficient for my purpose. If not, I will look to run a small but comprehensive empirical study which would involve human subjects. In this case, I will gain ethical approval to undertake a study focused on University of Waikato students in the first instance.

Thesis outline

Chapter 1 The philosophy of time and Presentism

In the introductory chapter, I will provide some historical context for the current ontological debates within the philosophy of time with a focus on Presentism. I will outline different versions of Presentism and explore the motivations for each version. Finally, I will investigate the ontological consequences that follow from these theories.

- What is Presentism?
- What Motivates Presentism?
- Surrogate Entities Presentism

Chapter 2 Truth-making theory

In chapter two I will investigate truth-making theory and the ontological implications that different versions of the theory have for Presentism. I will argue, seemingly in agreement with the majority of presentists, that the supervenience principle of truth should be adopted. I will go on to consider the ontological consequences that pertain if one accepts the supervenience principle and Presentism.

- Why truth-making?
- Versions of truth-making and the ontological consequences that follow
- Why the supervenience principle of truth?
- What are the ontological consequences that pertain if one adopts Surrogate Entities Presentism and the Supervenience Principle?

Chapter 3 Problems generated by Presentism

Once the background theory has been presented in the previous two chapters, I will go on to undertake a deeper analysis of the theories presented. I will look at five problems that arise when considering Presentism. Three of these problems are common (the Truth-maker objection, the problem of reference, and the problem of cross-temporal relations) and two are novel (the problem of shifting truth-makers and the Meinongian problem). This chapter will be strongly critical and merely carefully outline these problems. I will not consider solutions yet.

- What are the most significant problems facing the presentist?

Chapter 4 Solutions to problems generated by Presentism

Having laid out a detailed explanation and analysis of the five problems under consideration in this thesis, I will put on my ‘presentist hat’ and offer the most charitable defence of Presentism against these problems available.

- How can the presentist respond to the problems outlined?
- Can Presentism be reconciled with truth in the face of the problems presented?
- What kind of ontology is required to ‘save’ Presentism?

Chapter 5 Meinongian theory

Chapter five will provide a break from the steady technical development of the thesis. Having outlined Presentism, problems that the theory faces and the best solutions on offer, I will use this chapter to adjust the perspective of the reader. I will outline Meinongian theory with a focus on the ontology that is implied. I will pay careful attention to stay true to Meinong’s thinking and to explicate his ideas as accurately as possible. In undertaking this analysis, I will develop an honest account of Meinongian theory. I will argue that the purported differences between the Presentist’s ontology and the Meinongians might not be so different after all.

- What is Meinongianism?
- What are the similarities and differences between a surrogate entities Presentist’s ontology and a Meinongian presentist’s ontology?

Chapter 6 Objections to the solutions offered

In chapter five I will engage in a precise critique of the most convincing solutions offered by presentists (as presented in chapter four). In my critique I will generate arguments against the solutions offered. I will challenge the presentist’s assertion that Presentism is not Meinongian. I hope to generate sound arguments for all five of the problems discussed that conclude that Presentism entails an ontology that includes nonexistent objects.

- Do the solutions to the five problems really save presentism from being Meinongian?
- What are the logical arguments that should lead one to accept that Presentism is Meinongian?

Chapter 7 Rethinking Meinongian Presentism

In this chapter I will consider how it might look if Meinongian theory were superimposed over Surrogate Entities Presentism. I will argue that the distinction between Surrogate Entities Presentism and Meinongian Presentism might be able to be explained away as terminological differences. Furthermore, I will argue that the rejection of Meinongian theory by presentists is the result of an adherence to longstanding dogma.

- Is a nonexistent object by any other name still a nonexistent object?
- Can Surrogate Entities Presentism be reconciled with Meinongian theory?

Chapter 8 Is Eternalism any better off?

Having argued that Surrogate Entities Presentism is Meinongian in nature because of problems related to the reference of wholly past objects I will consider Eternalism by the same lights. Even though the eternalist avoids problems generated by the presentist's reference to wholly past objects there might be reason to think the eternalist cannot avoid such problems altogether. I will consider truth-making in an eternalist world and work to show that the eternalist also must face up to their own problems of reference to objects that do not exist. For example, fictional objects. If it is shown that eternalism faces a similar problem, perhaps there is reason to bite the bullet and adopt a Meinongian conception of the world no matter what theory of time one adopts.

- Can eternalists avoid the problem of reference to nonexistent objects?

Resource requirements

Metaphysical enquiry is not a resource intensive area of research. I will be undertaking an analysis of the existing literature and the primary resource required for this is the University of Waikato library along with my office, and IT equipment and services.

I will attend conferences locally and internationally. Where possible, I will seek external funding to cover the costs associated with attending conferences. If I decide to undertake an empirical study, I do not foresee the study being resource intensive. Such a study would involve University of Waikato students completing surveys. Minimal resources would be required.

Timetable for the project

- Complete chapter 1 draft, January 2020
- Complete chapter 2 draft, April 2020
- Complete chapter 3 draft, July 2020
- Complete chapter 4 draft, October 2020
- Complete chapter 5 draft, January 2021
- Complete chapter 6 draft, April 2021
- Complete chapter 7 draft, July 2021
- Complete chapter 8 draft, October 2021
- Complete Introduction and conclusion, November 2021
- Review, edit and finalise thesis, December 2021 – January 2022
- Review and complete references and bibliography, February 2022
- Complete final revisions, February 2022
- Complete thesis formatting, March 2022
- Submit thesis, April 2022

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