A CRITIQUE OF Mc TAGGART'S ARGUMENT AND A DEFENSE OF A VERSION OF PRESENTISM FROM A LATER WITTGENSTEINIAN PERSPECTIVE

by

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Abstract:

The thesis attempts to do four things. First it provides an interpretation of McTaggat's argument against the reality of time. McTaggart claims that the reality of time requires the reality of two series: the A- and the B-series. In the B-series events and times are positioned earlier/later than each other. This arrangement of events and times is unchanging. In the A-series events change from being future, to being present to being past events. They do so by instantiating incompatible A-series characteristics, which in language-game are expressed by the predicates 'is future', 'is present' and 'is past'. McTaggart holds that the reality of time requires the reality of change. Since the A-series is the only series that admits of change, the reality of time requires the reality of the A-series. However, since the reality of the A-series gives rise incompatible facts – represented through sentences like 'The Battle of Waterloo is past.' and 'The Battle of Waterloo is future.' – the A-series is contradictory. From this McTaggart concludes that the A-series and time itself cannot be real. Arguments which claim that McTaggart is wrong in holding that linguistic expressions like 'is past' and 'is future' are predicates standing for A-series characteristics (holding instead that these are indexical expressions) or that he mischaracterizes the logical form of sentences like 'The Battle of Waterloo is past.', fail to challenge the validity and soundness of his argument.

Secondly, the thesis presents an overview of Wittgenstein's later philosophy, focusing on his entries about meaning. It discusses the notions of language-game, rules and hinge assumptions, and interprets Wittgenstein's claim that the meaning of a linguistic expression is its use. In light of this interpretation of these key Wittgensteinian notions and claims, and of what it takes to be Wittgenstein's later approach to philosophical problems and issues in general, the thesis critically analyses McTaggart's arguments. This is the third main enterprise attempted in the thesis.

The thesis argues that McTaggart's paradox arises because he misinterprets sentences like 'The Battle of Waterloo is past.'; thinking that these sentences are used to predicate an A-series characteristics of an event that would be part of the world. McTaggart is lead astray by a presupposition he makes in his argument – the eternalist presupposition which holds that the reality of time requires the world to contain all event we consider to be in the past, the present and the future arranged along two series. Instead – in a manner typical of Wittgenstein's later philosophy – the thesis holds that one should consider how sentences like 'The Battle of Waterloo is present.' and 'The Battle of Waterloo is past.' are typically used in the language-games, situations and circumstances where they are usually employed. The typical use of these sentences would reveal that this is committed to a contrary presupposition – a presentist presuppositions which holds that the world contains only events and/or entities that exist at present. This implies a version of a particular notion of time – presentism. The version of this notion of time that will be upheld in the thesis is called 'default presentism'.

Presentsim is a controversial notion, that has been criticized on a number of counts. The thesis discusses three criticisms concerning the content, ontological commitments and truth of sentences about past entities like 'Napoleon was the First Emperor of France.'. These respectively claim that the sentence in question expresses a singular proposition that contains the past entity Napoleon, that it is asserting and implying that Napoleon is part of the world and that the truth of the sentence requires that Napoleon exists. All three would imply that default presentism is false. The thesis discusses these three criticisms of presentism in detail, and refutes each, using

resources from Wittgenstein's later philosophy. This is the fourth enterprise which the thesis attempts. The thesis argues that if – in Later Wittgensteinian fashion – one focuses on the typical uses of sentences like 'Napoleon was the First Emperor of France.', one would see that the sentence is not expressing a proposition that has Napoleon amongst its constituents. The typical use of the sentence is also not implying or asserting that Napoleon is part of the world. The truth of the sentence does not require that Napoleon exists. This is consistent with default presentism.

Acknowledgements:

Dedication:

Lil Karmenu Mifsud Bonnici

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Introduction

Introduction

This thesis attempts:

> an interpretation of McTaggart's argument for the unreality of time.

> a critique of this argument from a Later Wittgensteinian perspective. This will require supporting a particular notion of time, a version of presentism. The claim will be made that McTaggart mischaracterises several key sentences that feature in his argument.

> to consider several objections to philosophical presentism, the response to these objections from mainstream scholars of metaphysics, and a potential response from a later Wittgensteinian perspective. The conclusion that will be drawn from this perspective is that the version presentism supported in this thesis withstands these objections.

Use will be made of the Wittgenstenian notion of language-game, as well as of entries from Wittgenstein's later work that concern belief and truth.

Evaluations of McTaggart's argument from a later Wittgensteinian perspective are rare. J.L Findlay (1968) and Paul Horwich (2012) are two of the few exceptions. Wittgenstein himself, when dismissing philosophical problems related to time, refers to Augustine rather than McTaggart (See Wittgenstein, 1995, p.42), despite the latter being for some time his contemporary at the University of Cambridge.[1] Even Peter Geach, a follower and student of Wittgenstein (Kerr, 2002, pp. 21-22),[2] and one of McTaggart's major commentators, fails to engage the two thinkers when expounding the McTaggart's argument against the reality of time in *Truth, Love and Immortality* (Geach, 1979, p. 100).[3] The implicit assumption amongst a number of Wittgenstein scholars, as well as amongst many philosophers in metaphysics, seems to be that Wittgenstein would have outrightly dismissed McTaggart's argument against the reality of time, rather than engaging with it (see McLure, 2011, pp. 136-137). Philosophers who discuss McTaggart's argument on the other hand - whether to defend it or (more frequently) to refute its conclusion - need to presume that there is substance to the argument. As such there appears to be little scope to engage with McTaggart's argument from a Later Wittgensteinian perspective.

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[1] McTaggart lectured in philosophy at Cambridge between 1897 and 1923. Wittgenstein was, intermittently, a fellow and later a professor at the same Univeristy between 1911 and 1951.

[2] Geach was a researcher at Cambridge after 1945.

[3] In the book, Geach refers to Wittgenstein's thoughts on various other topics, but fails to engage McTaggart and Wittgenstein on the issue of time.

Contrary to the above, this thesis asserts that an engagement with McTaggart's argument for the unreality of time from a Later Wittgensteinian perspective is both highly generative and instructive. The thesis also contends that McTaggart's argument should not be dismissed outright, but only after one of the theoretical presuppositions on which it rests is unearthed and shown to be unwarranted. The attempt to show that from a later Wittgensteinian perspective this presupposition is unwarranted, will necessitate supporting a particular notion of time, a version of presentism which shall be called 'default presentism'.

Before providing an overview of the thesis, it is important to note two key disclaimers. First, this thesis does not explicitly advocate for the work of Wittgenstein or for any of his theories referenced in the following chapters. Instead, this research intends to highlight, illustrate and develop several insights in Wittgenstein's later philosophy, especially his famous claim that the meaning of a linguistic expression is its use, in relation to McTaggart's argument for the unreality of time, and to three possible counterarguments to default presentism.[1]

Second, while the thesis provides an interpretation of Wittgenstein's theory of meaning, and refers to passages where he discusses issues concerning belief and truth, it is not intended to be fundamentally exegetical. Despite referring to some key Wittgensteinian notions at certain points throughout, the thesis does not aim to support or provide some general interpretation of Wittgenstein's later work.

An overview of the thesis

Chapter 1 presents an interpretation of McTaggart's argument (McTaggart, 1927, pp. 9-31; McTaggart, 1908, pp. 457- 474). This thesis claims that, given certain presuppositions that he makes (for instance that events in time are arranged along two series, and that the reality of time requires the reality of change), and given his understanding of the terms 'past', 'present' and 'future', as well his characterization of facts, McTaggart is correct in claiming that the reality of time is contradictory. The chapter also considers and counters three responses to McTaggart's argument, two of which are from mainstream literature (Lowe, 1987; Broad, 1976).

Chapter 2 focuses on Wittgenstein's claim that the meaning of a linguistic expression is its use (Wittgenstein, 1995, p. 20; Wittgenstein, 1965, p. 65). The chapter will refer to the notion of

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[1] So the argument the thesis is making is conditional; if one accepts these Wittgensteinian insights, one would have to reject the conclusion drawn in McTaggart's argument and the criticisms to presentism that are considered in the thesis.

language-games, to the rules that for Wittgenstein govern these language-games, and to certain assumptions – which will be called 'hinge assumptions - on which such language-games rest. These are discussed in some detail, as they feature prominently in the analysis of McTaggart's argument and in the defense of default presentism.

Chapter 3 considers McTaggart's argument from a later Wittgensteinian perspective. Wittgenstein often dismissed most arguments in metaphysics, considering them to comprise either one or the other (or both) of two categories of nonsense. This chapter claims that McTaggart's argument misinterprets sentences such as 'The Battle of Waterloo is past.' as involving the predication of a characteristic to an event. McTaggart is misled by one of his key presuppositions: that the reality of time requires past, present and future events, arranged along two series (the A and B series), to be part of the world. However, this presupposition can be rejected from a later Wittgensteinian perspective, which ultimately supports a version of a particular notion of time - presentism. Presentism maintains that the world only contains what exists at present. The version of presentism that can be supported from a later Wittgensteinian perspective, will be named 'default presentism'. Default presentism would be presupposed by the use of certain sentences related to time. Default presentism would also imply that the reality of time is not contradictory.

Presentism is an intuitive view, which many philosophers - including philosophers who are not presentists like Putnam - admit is the view held by; 'the man on the street' (Putnam, 1967, p. 247). It should be noted however that presentism is a controversial view in metaphysics and philosophy of science, and has been criticized on various counts. The objections to presentism come primarily in two variants. Some are sentence-related. These are based on the semantic and metaphysical implications of sentences like 'Napoleon was the First Emperor of France.'. Other objections are drawn from science. If any such criticism is sound, presentism – including default presentism - cannot be used to challenge McTaggart's argument.

The thesis considers three examples of sentence-related criticisms to presentism (Chapters 4 – 7). It does not consider any objections to presentism from science. (The reasons why it does not also consider objections from science are laid out in the next section). The sentence-related objections to presentism that are considered relate to the content, ontological commitments, and truth of sentences like 'Napoleon was the First Emperor of France.'.

Each objection to presentism is explored in detail and some responses from proponents of philosophical presentism in mainstream philosophy literature are also considered. Finally, this thesis suggests a response to each criticism from a later Wittgensteinian perspective, based on his

theory of meaning cited in chapter 2 and on other passages in Wittgenstein texts, in order to defend default presentism. The similarities and differences between the answer to each criticism drawn from a later Wittgensteinian perspective, and the responses espoused by proponents of presentism in the field of metaphysics to which the thesis refers, will be highlighted.

The critique of presentism considered in Chapter 4 suggests that sentences such as 'Napoleon was the First Emperor of France.', express an abstract proposition which contains Napoleon as a constituent. In this sense, presentism – including default presentism - would be unsound because the world would contain past entities like Napoleon. The Wittgensteinian counterargument proposed in this thesis will claim that such sentences do not express abstract propositions, because there simply are no abstract propositions.

Chapter 5 considers the claim that the sentence 'Napoleon was the first Emperor of France.' is ontologically committed to the world containing Napoleon. The sentence would suggest or imply that Napoleon is part of the world. After presenting two presentist counterarguments to this claim — one which refutes the objection on meta-metaphysical grounds, and the other which denies that the above sentence is really committed to the existence of Napoleon on semantic grounds — a later Wittgensteinian response is also considered. Considering Wittgenstein's theory of meaning and the method Wittgenstein adopts in his later philosophy, this response denies that the sentence is committed to past entities. This is consistent with default presentism.

The final two chapters (6-7) consider a criticism to presentism that refers to the truth of sentences like 'Napoleon was the First Emperor of France.'. This is the main sentence-related critique levelled against presentism in philosophical publications on time. The criticism cites two theories of truth that are widely held in analytic philosophy; Truth-making and Truth Supervenes on Being. These would hold that the truth of 'Napoleon was the First Emperor of France.' requires a truth-maker that contains Napoleon/the truth of 'Napoleon was the First Emperor of France.' supervenes on what exists because the world contains Napoleon. Chapter 6 illustrates this criticism in detail and considers three presentist responses from current literature, which ultimately deny that either the truth of the sentence requires truth-makers that contain Napoleon, or that the truth of this sentence supervenes on what exists because the world contains Napoleon. However, the three responses are susceptible to an objection that refers to an omnipotent being, proposed in the final section of the chapter.

Chapter 7 focuses on the later Wittgensteinian counterargument to this particular criticism to presentism. The Later-Wittgenstein characterizes truth exclusively in terms of the use of the

linguistic expressions 'is true' and 'is false'. This chapter argues that the truth of the sentence 'Napoleon was the First Emperor of France.' does not require the world to contain Napoleon, but only that one may use the linguistic expression 'is true' correctly in relation to this sentence. The final section of Chapter 7 argues that, whereas the presentist accounts of the truth of 'Napoleon was the First Emperor of France.' considered in the previous chapter are susceptible to the omnipotent being objection presented in Chapter 6, the later Wittgensteinian account of the truth of this sentence is not vulnerable to the same objection. Default presentism can however withstand these three objections.

Apart from sentence-related objections, the other main type of objection to presentism is drawn natural science, particularly physics. The following section provides an overview of the objections drawn from physics, and the main reasons why they are not being considered in this thesis.

Presentism and the theory of special relativity

Philosophers like Hilary Putnam contend that natural science alone should determine which theories about the temporal aspect of the world it makes sense to uphold (Putnam, 1967, p. 247). It has been suggested that one of the principal theories in physics, the theory of special relativity, is inconsistent with presentism (See Putnam, 1961; Dorato, 2002; Sklar, 2002). In short, presentism – including the version of presentism (default presentism) presented in this thesis - requires that:

any two existing events must co-exist in the present (the only time at which anything exists), and hence must be simultaneous one with the other.

two such events would be simultaneous *simpliciter*.

Conversely, the theory of special relativity seems to imply that there is no simultaneity *simpliciter*. Simultaneity would be relative to the frame of reference from which one considers two or more events. For example, assume that light travels at the same velocity in all directions and that there are two observers in motion, travelling at considerably different velocities, and in opposite directions (Sklar, 2002, p. 25). In such a case there would be different frames of reference, relative to the velocity of each vehicle. These determine how the two observers perceive other events (See Effingham, 2013, p. 143). Suppose both observers perceive two events *e1* and *e2*, which are not causally related to one another. The two events *e1* and *e2* may appear to be simultaneous to one of the observers. (The two events would be simultaneous according to one frame of reference). The events *e1* and *e2* may however appear as successive to the other observer. (The two would appear to be successive from the other frame of reference). The theory of special relativity suggests that

no frame of reference is privileged. Whether the two events *e1* and *e2* are simultaneous or not, would be relative to each respective observer (Sklar, 2002, p. 39). This would hold for any two events perceived to be simultaneous from one frame of reference and as successive from another. No two events would be simultaneous *simpliciter*, but are so only relatively to some frame of reference. This is incompatible with presentism.

This objection to presentism will not be addressed in the thesis for two reasons: space and Wittgenstein's attitude towards science. In regards to space, if the thesis were to consider this criticism fairly, it would require considering the arguments of those scientists (e.g. Smolin, 2014, pp. 162-164) and philosophers (Bourne, 2006, pp. 160-179; Hinchliff, 2000, pp. 580-583; Godfrey Smith, 1979, p. 240) who deny that special relativity and presentism are incompatible. It would also require taking into consideration the claims of scientists, such as Barbour, who believe that scientific theories inherently support the unreality of time altogether (See Barbour, 1999), as well as the argument of certain philosophers, who question the role of science in delivering authoritative verdicts on the nature of reality, including its temporal aspect (see Monton, 2010).

The second reason relates to Wittgenstein's attitude towards science. Wittgenstein believed that science and philosophy have concerns and methods that are fundamentally different. The primary focus of philosophy is conceptual and linguistic analysis. This is because the majority of the issues and problems that arise in various fields of philosophy are essentially due to; 'misunderstanding[s] about the workings of language... [especially] the use of words' (Beale, 2017, p. 1; See Wittgenstein, 1995, p. 47). These misinterpretations are frequently produced by exaggerating the similarities of words or linguistic expressions that seem to be comparable and analogous but are in effect very different (See Horwich, 2012, p. 51). This is evident in the following example.

The sentence: 'The ball is blue.' appears to be similar to 'Helping the poor is good.'. Both are ordinary subject-predicate sentences. Since 'blue' is a predicate expressing a quality possessed by the object in question, the similarity in the two sentences might suggest that 'good' is equally a quality instantiated in the act of helping. However, 'good' is also significantly different from 'blue'. Stating that an entity or object is 'blue' does not prescribe a particular attitude towards said entity or object. On the other hand, stating that the act of 'helping' is 'good' would invite a particular attitude towards the act in question, showing approval to this act and fostering a desire to 'help' where possible. This seems to give rise to an issue: how can the term 'good' be similar to the term 'blue' (both are used as predicates), and yet the two terms be so remarkably distinct from one another? This instigates various debates on the nature of 'good' in ethics, with philosophers adopting various contrasting positions: analysing 'good' in terms of some non-moral feature,

property or characteristic (as when 'good' is analysed in terms of 'happiness'); characterising 'good' as a mysterious property; or refuting the very notion of 'good' itself (Horwich, 2012, p. 60).[1]

Rather than engaging in these debates or probing the validity of such hypotheses, Wittgenstein suggests that philosophy should examine how the term 'good' is used in the situations, circumstances and activities where it is normally employed. It should consider the various contexts where people normally use the word 'good', the purposes they typically have in using this word, and the presuppositions that are made when using 'good' in different contexts. This type of exercise would demonstrate how 'good' and 'blue' are distinctly similar but, also drastically different in terms of their utilisation. Furthermore, it would dissuade philosophers from: producing theories that either affirm or deny the existence of the property 'good'; analysing 'good' in terms of something like 'happiness'; or characterising 'good' as a mysterious property. This is the role Wittgenstein envisages for the discipline.[2] Philosophy should highlight the confusions and indeed misuses of linguistic expressions that generate misguided problems (Horwich, 2012, p. 6).

For Wittgenstein, the purpose of science on the other hand, is to provide theories about the world, and to collect empirical data in order to either substantiate or refute such theories. These scientific theories include the formulation of hypotheses, empirical testing, and experiments that either confirm or challenge the validity of these theories. In cosmology for instance, scientists speculate on the evolution of the universe, collect data to substantiate their hypotheses, and seek to confirm, change or refute theories or conjectures. The same is true in neuroscience, where scientists, for instance, formulate hypotheses regarding the chemical processes of the brain that are correlated to pain, fears, and thoughts, and conduct experiments to support, alter or debunk their initial hypothesis. Some of these hypotheses considered by scientists in some fields concern the temporal nature of the world.

It is clear that, despite being distinct, both disciplines interweave at various points. Scientists use linguistic expressions that express determinate concepts, and conceptual and linguistic clarity will naturally enhance their hypothesis and theories. However, scientific discoveries may also affect how language is used. For instance, the Copernican Revolution (16th century) suggested that statements such as 'The sun has risen this morning.' could no longer be used to describe events that happen in the world.

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[1] One may here object that Wittgenstein is making a caricature of philosophical debates in ethics. This thesis does not take a definitive position on this issue. It only highlights Wittgenstein's views on how philosophy should proceed: what should be purpose of the discipline, and the method philosophers ought to pursue.
[2] As will be seen in chapter 3, even McTaggart's paradox arises because he misunderstands certain terms which feature in sentences that describe the temporal aspect of the world.

While Wittgenstein thinks that it is up to science to produce theories and hypothesis about the world, he does not think that philosophy should entirely disregard how the world is. As stated, he holds that philosophy consists primarily of conceptual and linguistic analyses. Wittgenstein considers this to include the description of the typical use of linguistic expressions of various sorts (see Chapter 2). The typical use of a vast number of linguistic expressions relate to how the world would be. Describing how these linguistic expressions are used, might therefore involve reference to how the world or some feature or aspect of the world (e.g. its temporal dimension) would or would not exist given the typical use/s of these linguistic expressions.

It is in light of this characterisation of the purpose and method of philosophy according to Wittgenstein, that the aim, nature and scope of the thesis ought to be considered in relation to the version of presentism supported in the thesis. The thesis will not discuss whether presentism – including default presentism - has any empirical support or whether it should be rejected as a result of scientific considerations. Instead, by adopting a later Wittgensteinian approach, the thesis supports this notion of time because it derives from the manner in which people use certain linguistic expressions associated to the temporal aspect of the world (chapter 3). The thesis also claims that, given Wittgenstein's thoughts on language and entries in his later work about areas such as belief and truth, the sentence-related arguments against presentism are unwarranted. The proper philosophical characterisation of the meaning, ontological commitment, and truth of sentences like 'Napoleon was the First Emperor of France.' are not inconsistent with default presentism. This is in line with the later Wittgenstein perspective of philosophy.

Chapter 1: McTaggart's Argument

1 Introduction

McTaggart's argument for the unreality of time can be considered in the following schematic:

> Premise 1: times and events are arranged in two series, the A- and B- series. In the A-series, events and times are arranged according to whether they are in the past, the present or the future. In the B-series events and times are arranged earlier and later than, or simultaneous with, other events or times.

> Premise 2: the reality of time requires the reality of change. There can be no change if facts do not change.[1] The only series that permits change is the A-series.

> Premise 3: the terms 'past', 'present' and 'future' stand for incompatible characteristics instantiated by events and times. Each event or time can have only one such characteristic. If the A-series is real however, each event and time will instantiate the three predicates. Therefore, there cannot be events or times that instantiate the three A-series characteristics, since this would involve a contradiction. As a result, the A-series cannot be real.

> Conclusion: if the A-series is unreal (premise 3), there can be no change and no time (premise 2). We think and talk about the world as being temporal: of things as existing in time. But temporality is a feature of how we think and talk about reality, not of the world itself.

The following sections address each of the premises in some detail. In the second part of the chapter then, three objections to McTaggart's argument are considered. The first is from McTaggart's own work, and holds that the argument is obviously unsound. According to the second objection, drawn by E.J. Lowe in 'The Indexical Fallacy in McTaggart's Proof of the Unreality of Time', McTaggart misunderstands the nature of the linguistic expressions 'past', 'present', and 'future'. A third objection, drawn from C.D. Broad's *An Examination of McTaggart's Philosophy*, claims that McTaggart misconstrues the role played by tensed copulas such as 'was' and 'will be' in sentences like 'The Battle of Waterloo was present.'.

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[1] McTaggart characteristes facts in terms of entities instantiating relations or characteristics (rather than some abstract *sui generis* entities as other philosophers characterise facts, see Ingthorsson, 1998, p. 301). In *The Nature of Existence*, he writes; 'I should define a Fact as being either the possession by anything of a quality or the connection of anything with anything else by a relation' (McTaggart, 1921, p.11)

1.1 A schematic presentation of McTaggart's Argument's

Premise 1: times and events are arranged in two series, according to the whether they are in the past, present or future (the A-series), and earlier or later than other events and times (the B-series).

For McTaggart, time would consist of events (for example, 'the Battle of Waterloo', 'the writing of this chapter', 'World War III') and the times identified by expressions such as '1815', 'September 12th 2011', or 'Yesterday'.[1] Events wouold exist at these times.

Time and events are arranged as either earlier or later than each other, or (with regards to events) as simultaneous with other events or times (McTaggart 1927, pp. 9-10). For example, the Battle of Waterloo is positioned later than the Battle of Hastings and earlier than the Battle of the Bulge. McTaggart calls this arrangement of events and times the B-series. Such an arrangement determines several B-facts, which are facts that concern the position of an event or time in the B-series. The event 'The Battle of Waterloo' being related to the event 'The Battle Trafalgar' by the relation 'later than' constitutes the B-fact 'The Battle of Waterloo being later than the Battle of Trafalgar'. Sentences that describe B-facts like 'The Battle of Waterloo is earlier than the Battle of the Bulge.' or 'The Battle of Waterloo is in1815.', can only have one truth value, even if produced at different times.

Every event or time is also a past, present or future event or time (McTaggart, 1927, p. 10). 'The Battle of Waterloo' is a past event, while 'World War III' is a future one. McTaggart refers to this arrangement of events and times in the past, present and future as the A-series. The existence of events along the A-series results in A-facts. These are facts like the battle of Waterloo being a past event, and World War III being a future event. A-facts are represented in language through tensed sentences like 'The Battle of Waterloo is past.', and 'World War III is future.'. Specific tokens or utterances of these sentences may differ in truth value, depending on the time at which they are produced. A token or utterance of 'The Battle of Waterloo is past.' produced in 2020 is true: a token or utterance of the same sentence that was produced in 1804 was false.

The manner in which McTaggart's characterizes the A and B series presupposes eternalism, whereby the world would contain all events that have occurred, are occurring, and will occur, as well as all the past, present and future entities involved in these events (see McTaggart, 1927, p.

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[1] McTaggart uses the word 'positions' (McTaggart, 1927, pp. 9-10).

12. See also Inghthorsson, 2016, p. 4).[1] He claims that if time is real, the A- and B-series cannot be only modes of considering, conceiving and speaking about time and events (see McTaggart, 1927, pp. 11-12). The two series must really be part of the world. As a result, the events and times making up these series, and the entities that constitute these events, must also be part of the world. So, if it is a B-fact that the Battle of Waterloo is later than the Battle of Hastings, the world contains the two events.[2] Likewise, if it is an A-fact that 'World War III is a future event', the world contains the event 'World War III'. If the Battle of Waterloo has Napoleon engaged in a battled, and World War III has outposts on Mars, the world contains Napoleon and outposts on Mars. The presupposition that the reality of time requires the reality of all past, present and future events and entities will be called 'the eternalist presupposition'.

Premise 2: the reality of time requires the reality of change. There can be no change if facts do not change. The only series that admits change is the A-series.

McTaggart claims that there would be no time if nothing changed (McTaggart, 1908, pp. 458-459; 1927, p. 11). We do think and talk about events and things changing and being in time, but this is not enough for the reality of change and time (McTaggart, 1909, pp.350-351; 1927, p. 27). Events and times themselves must undergo change (Freeman, 2010, pp. 389-390). Change occurs only if there is some alteration to the facts that concern events and times (McTaggart, 1927, pp. 14-15).

McTaggart also asserts that, if time is real, the only facts that change concern the position of events and times along the A-series (McTaggart, 1927, pp. 13-15). For instance, it was once a fact that the Battle of Waterloo was a future event but this is no longer so. It was later a fact that this battle was a present event. It is now a fact that the battle is a past event. Conversely, B-facts do not change (McTaggart, 1927, p. 10). The B-fact the Battle of Waterloo being later than the Battle of Trafalgar cannot be altered. The two events cannot become simultaneous or reverse their historic order. In addition, since McTaggart believes that (if time were real) the world contains all events considered to be in the past, in the present and the future, no event in the B-series can shift in and out of existence (McTaggart, 1927, p. 12). The two events 'the Battle of Trafalgar' and 'the Battle of Waterloo' will then always be part of the world and always be related to each other by

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[1] By world one should understand; 'Every stick and every stone…you and I …the planet Earth, the solar system, the entire Milky Way, the remotest galaxies…the bits of empty space between starts and galaxies. There is nothing ….(that is not) part of [the] world' (Lewis, 1986, p. 1).

[2] This is sustained by McTaggart's characterisation of fact. In *The Nature of Existence*, McTaggart holds that facts exist when the things the facts concern also exist (McTaggart, 1921, p. 11). If the fact 'World War III being future' obtains and is about World War III, World War III must exist.

the relation 'later-than'. The reality of time therefore requires the reality of A-facts. It requires that times and events are actually in the past, present or future (the A-series), and are not merely thought or believed to be as such.

Some philosophers have thought that there are other facts that change, separate from those that concern the position of an event or time along the A-series. These are facts that concern objects or entities, rather than times or events. There is a long tradition, ranging from Aristotle (Aristotle, 2008, pp. 20-21) to contemporary philosophers Le Poidevin (1991) and Mellor (1998), that characterizes change in terms of entities having different properties at varying times. Peter would undergo a change if at one point in time he instantiates a characteristic (being alive), and at a later point in time he instantiates a different characteristic (being dead). However, McTaggart denies that change can be considered along these lines. The reality of change requires that there is some alteration in facts. McTaggart claims that an object or entity that has diverse properties at different times does not amount to the facts about the said object or entity changing. Consider Peter, who is alive at one point in time (September 12th, 2008) and dead at another point in time (September 13th, 2008). It will forever be a fact that Peter is alive on September 12th, 2008. Likewise, it will always be a fact that is dead on September 13th, 2008. The fact that Peter is alive on September 12th, 2008 cannot be change.[1] It can never be the case that Peter is dead on September 12th, 2008 (McTaggart, 1927, p. 13).[2] Objects or entities with varying properties at different times cannot constitute change.

If the A-series is real on the other hand, events and A-facts about things would change (Lowe, 2002, p. 311). The event 'Peter dying' was a future event. This gave rise to the A-fact 'Peter's dying being in the future'. The event 'Peter dying' later became a present event, giving rise

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[1] 'Take any event – the death of Queen Anne …That it is a death, that it is the death of Anne Stuart, that it has such causes, that it has such effects – every characteristic of this sort never changes' (McTaggart, 1927, p. 13).

[2] McTaggart implicitly rejects intuitions, like the indeterminacy intuition upheld by John MacFarlane. This intuition suggests that the truth value of tokens or utterances of future-tense sentences, like 'Tomorrow there will be a sea battle.' is not determined at the time when the token or utterance is produced. Instead, the truth or falsity of the token or utterance is determined only at the time when the sentence can be assessed: the time indicated by word 'tomorrow'. MacFarlane asserts that, at the time when the token or utterance is produced, the sentence will neither be determinately true nor determinately false. This is because it is possible for the future to turn out either way (MacFarlane, 2003, p. 321). In terms of 'facts', there is not yet a fact about the same battle. McTaggart implicitly rejects this. Suppose that the time in which the sentence is tokened or uttered is the 4th of March 2019. The time indicated by 'tomorrow' would then be the 5th of March 2019. According to McTaggart, if there is a sea battle on the 5th of March 2019, it will always be or have been the case that there is or will be a sea battle on the 5th of March 2019 (See McTaggart, 1927, p. 13). This fact will always obtain. As a result, this would imply that, when the token or utterance of 'Tomorrow there will be a sea battle.' is produced on the 4th of March 2019, it will not really be possible that the future will turn out either way, as MacFarlane would suggest. 'There will be a sea battle tomorrow.' will already be either determinately true or false, even if no one will be able to tell whether it is true or false on the 4th of March 2019.

to a different A-fact (Peter is dying at present). The event 'Peter dying' is now a past event, giving rise to yet another different A-fact (Peter dying being a past event).

Since time requires change and the only change there can be concerns the A-series, the A-series is necessary to the reality time (McTaggart, 1927, p. 10). McTaggart however, claims that the A-series is contradictory.

Premise 3: past, present and future are incompatible characteristics. Yet if the A-series is real, each event or time will instantiate the three characteristics.

The reality of time requires the reality of the A-series, as this is the only one of the two series that permits change. The reality of the A-series necessitates that an event or time being in the past, in the present or in the future is not reducible to some relation between the event or time in question, and some other event or time. In terms of facts it requires that a fact like 'the war in Syria is present' does not equate to it being simultaneous with some other event– say the writing of this chapter - existing at the same time when this event (the War in Syria) exists. The two events being simultaneous would be an unchanging B-fact. Similarly, the fact that the Battle of Waterloo is a past event, cannot be reduced to this event being earlier than some event that obtains at a later time or some other, for instance the battle being earlier than the writing of this chapter. The battle of Waterloo being earlier than the writing of this chapter is an unchanging B-fact. Therefore, change in the A-series cannot be characterised in terms of events or times, being related to other events or times. It needs to be characterised along different lines.

In his work, McTaggart considers 'is present', 'is past' and 'is future' in sentences that describe A-series facts, like 'The Battle of Waterloo is past.', to be predicates that represent certain characteristics. These characteristics, A-series characteristics, are instantiated by events in the subject place of these sentences (See McTaggart, 1927, p. 19; Vesey and Foulkes, 1990, p. 230).[1] The instantiation of the A-series characteristics 'past', 'present' and 'future' by an event or time would determine its position in the A-series. The A-fact the battle of Waterloo being in the past would be determined by this event instantiating the A-series characteristic 'past'. Similarly, the A-fact 'the Syrian war is present' is determined by this event instantiating the A-series characteristic 'present'.

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[1] 'Past, present and future are characteristics we ascribe to events and also to moments of time…. [This is what] we mean by past, present and future' (McTaggart, 1927, p.19).

Since some events or times may be further in the past or future than others, event and times may instantiate the A-series characteristics 'past' and 'future' to varying degrees.[1] On the other hand, the A-series characteristic 'present' does not permit variation or degree. No event or time can be more present than another.[2]

McTaggart insists that different A-facts that concern a particular event or time are incompatible with one another. This is because A-series characteristics are mutually incompatible. An event or time cannot instantiate the A-series characteristic 'past', as well as the other A-series characteristics 'present' and 'future' (McTaggart, 1927, p. 20). The A-facts generated by these characteristics being instantiated by the same event would be inconsistent. The A-fact 'the writing of this chapter is present' is incompatible with the A-facts 'the writing of this chapter is past' and 'the writing of this chapter is future'. If a sentence reporting the first fact is true, sentences reporting the other facts must be false.

However, the reality of the A-series requires each event or time to instantiate each of the three A-series characteristics (McTaggart, 1927, p. 20). It necessitates that the three incompatible facts - 'the writing of this chapter is past', 'the writing of this chapter is in the present' and 'the writing of this chapter is future' – obtain. Different sentences representing these incompatible facts would all be true. Given that the reality of the A-series requires these inconsistent A-facts, the A-series is contradictory.

Conclusion: the A-series and time cannot be real.

If the A-series is real, any event or time would instantiate three A-series characteristics that are mutually incompatible. This would generate incompatible facts (premise 3). Sentences that describe these incompatible facts would all be true. This is contradictory. As a result, the A-series cannot be real. Given that the reality of time requires the reality of the A-series (premise 2), time itself cannot be real.

1.2 The 'obvious reply'

McTaggart's argument can therefore be summarised as follows:

>   Premise 1: time and events are arranged in the A and B series.

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[1] The characteristics 'past' and 'future' would resemble characteristics like 'healthy', whereby such characteristics would be instantiated by different entities at varying degrees. While both instantiate the same characteristic 'healthy', Peter may be healthier than Paul, and therefore instantiate the characteristic to a greater degree.

[2] In this respect the A-series characteristic 'present' would resemble the characteristic 'pregnant'. A creature that is pregnant cannot be 'more pregnant' that another creature that is also pregnant.

Premise 2: the reality of time requires the reality of change. Only the A-series permits change.

Premise 3: the A-series requires events or times to instantiate the incompatible characteristics 'past', 'present' and 'future'. This suggests that incompatible sentences like 'The Battle of Waterloo is future.', 'The Battle of Waterloo is present.' and 'The Battle of Waterloo is past.' are all true. Thus, the A-series cannot be real.

Conclusion: There is no change and no time.

The remainder of the chapter considers three possible, unsuccessful, responses to McTaggart's argument. All three claim that McTaggart misconstrues some feature or other of sentences like 'The Battle of Waterloo is past.', and that his conclusion arises because of this. The first response considered will be called 'the obvious reply'. It is a reply that McTaggart himself contemplates.

The 'obvious reply' to McTaggart's argument would attack premise 3, and contend that there is no inconsistency in tokens or utterances of tensed sentences like 'The Battle of Waterloo is past', 'The Battle of Waterloo is present.', and 'The Battle of Waterloo is future.' being all true. This is because the contents and truth value of these sentences would be sensitive to the context – i.e. the 'time, place and world' (Lewis, 1980, p. 79) - where tokens or utterances of these sentences are produced (Richard, 2004, p. 215). In this case, the relevant contextual feature is time. (The examples of the different contexts considered in this chapter all include the same world.)

The time when a token or utterance of 'The Battle of Waterloo was past.' is produced would determine when the 'descriptive content' of the sentence obtains (Ogihara, 2007, p. 321); i.e. when the event the Battle of Waterloo would be past. Tokening or uttering 'The Battle of Waterloo is past.' on the 14th December 2019 would suggest that the Battle of Waterloo is past as of the 14th December 2019. If Nelson had to token or uttered the same sentence in 1804 however, his token or utterance would indicate that the Battle of Waterloo is past as of 1804.

Even the truth of tokens or utterances of sentences like 'The Battle of Waterloo is past.', 'The Battle of Waterloo is present.' and 'The Battle of Waterloo is future.' is relative to the particular contexts where these tokens or utterances are produced (see MacFarlane, 2015, p. 134). The truth of a specific token or utterance of a sentence produced in one context does not imply that the token or utterance of the same sentence produced in any another context is also true. In general, one can say that any token or utterance of 'The Battle of Waterloo is past.' produced at any context

c that includes any time *t* prior to June 16th 1815 is false. Any token or utterance of the same sentence produced at any context *c1* which includes any time *t1* after June 16th 1815 is true. Contrariwise, in any context *ct*, tokens or utterances of 'The Battle of Waterloo is future.' are true. Tokens or utterances of the sentence produced at contexts *c1t1* are false. Regarding tokens or utterances of 'The Battle of Waterloo is present.', these are only true if they are produced at the same time as the battle.

Assuming McTaggart's claim that the predicates 'is past' and 'is present' represent A-series characteristics, the fact that tokens or utterance sentences like 'The Battle of Waterloo is present.' and 'The Battle of Waterloo is past.' are true at different times implies that the event does not instantiate incompatible characteristics simultaneously but successively. The event 'The Battle of Waterloo' instantiates the A-series characteristic 'past' when any of the times *t* prior to when the 16th of June is present.[1] The same event would instantiate the characteristic 'future' when any of the times *t1* is present. It would instantiate the characteristic 'present' when the time indicated by 'June 16th 1815' would also instantiate the A-series characteristic 'present'. Thus, obviously, there is no contradiction (see McTaggart, 1927, p. 21).

McTaggart denies that the 'obvious reply' avoids the contradiction. He claims that this follows if one analyses sentences that supposedly represent the same event instantiating different A-series characteristics i.e. sentences like: 'The Battle of Waterloo was present.' and 'The Battle of Waterloo is past.'. According to the obvious reply, sentences like 'The Battle of Waterloo is past.', 'The Battle of Waterloo is present.', and ''The Battle of Waterloo is future.' indicate the successive instantiation of the characteristics 'past', 'present' and 'future'.

Arguably, McTaggart was one of the 'least linguistic of philosophers' (Geach, 1979, p. 62) of the twentieth century, as he was not inclined to draw metaphysical conclusions from his thoughts on language. Yet, his analysis of tensed sentences like 'The Battle of Waterloo is future.' plays a fundamental part in his argument on time. Using modern terminology, McTaggart appears to suggest that there is a difference between the surface form of ordinary tensed sentences like 'The Battle of Waterloo was future.' – how these sentences appear in natural language – and their logical form, which may not be evident from how these sentences appear in their everyday use. The logical form of sentences like 'The Battle of Waterloo was future.' and 'The Battle of Waterloo is past.' would be representable through sentences like 'The Battle of Waterloo is future in the past.' and 'The Battle of Waterloo is present in the past.'. In terms of predicate logic (which

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[1] i.e when the time/s in question instantiates the A-series characteristic 'present'

McTaggart does not use) the logical form of sentences like 'The Battle of Waterloo was future.' and 'The Battle of Waterloo is past.' would be represented as:

Ǝ!x BofW(x) & FP(x)

and

Ǝ!x BofW(x) & PN (x).

('FP' and 'PN' would represent the predicates 'future in the past' and 'past in the present', 'BofW' represents the event 'the Battle of Waterloo', and '!' indicates that there can be only one definite entity that may be indicted by the variable.)[1] McTaggart holds that sentences like 'The Battle of Waterloo is future in the past.' do not merely indicate the logical form but also have the same meaning as the everyday sentences 'The Battle of Waterloo was future.' (McTaggart, 1927, p. 21).

The sentences 'The Battle of Waterloo is future in the past.' and 'The Battle of Waterloo is past in the present.' have two characteristics. First, the copula 'is' in these sentences is tenseless (McTaggart, 1927, p. 21). This contrasts with the surface grammar of sentences like 'The Battle of Waterloo was future.' where the copula is tensed. Secondly, since the terms 'past', 'present' and 'future' represent A-series characteristics, the predicate 'is future in the past' in a sentence such as 'The Battle of Waterloo is future in the past.' stands for complex two-tensed A-series characteristic (McTaggart, 1927, p. 21).

The Battle of Waterloo was a future event, and is now a past event. This is indicated by sentences like 'The Battle of Waterloos was future.' and 'The Battle of Waterloo is past.'. Given that the sentences 'The Battle of Waterloo was future.' and 'The Battle of Waterloo is past.' are both true, the sentences 'The Battle of Waterloo is future in the past.' and 'The Battle of Waterloo is past in the present.' are also both true. This implies that the event 'The Battle of Waterloo' instantiates the A-series characteristics 'future in the past' and 'past in the present'. The instantiation of these two-tensed complex A-series characteristics by the same event does not lead to the contradiction (Le Poidevin, 1991, p. 25). However, these are not the only complex two-tensed A-series characteristics that the Battle of Waterloo instantiates (McTaggart, 1927, p. 21).

If the A-series is real, the event 'The Battle of Waterloo' will instantiate nine two-tensed A-series characteristics, determining nine A-series facts (McTaggart, 1927, p. 21). These facts are

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[1] In words, the predicate-logic translations would read 'There is a definite x, and x is the Battle of Waterloo and x is future in the past.'; 'There is a definite x, and x is the Battle of Waterloo and x is past in the present.'.

representable through sentences whose logical form is 'The Battle of Waterloo is future in the future.', 'The Battle of Waterloo is past in the past.', and so on. The copulas in these sentences would be tenseless. Some of these two-tensed complex A-series characteristics and the facts they generate are incompatible (McTaggart, 1927, p. 21). For example, the characteristics 'past in the past' and 'future in the future' are incompatible. However, if the A-series is real, the event 'the Battle of Waterloo' will instantiate both characteristics. Tokens or utterances of the sentences 'The Battle of Waterloo is future in the future.' and 'The Battle of Waterloo is past in the past.' will both be true, even if the truth of one sentence is incompatible with the truth of the other. A contradiction is thus generated, this time involving two-tensed complex A-series characteristics.

Claiming that the complex two-tensed A-series characteristics are instantiated at different times in an attempt to solve the contradiction will in fact produce the said contradiction at a different level (McTaggart, 1927, p. 21). Take the two-tensed A-series characteristics 'past in the past' and 'future in the future' as examples. The event 'the Battle of Waterloo' instantiates the first characteristic at the time this chapter is written, while having previously instantiated the second characteristic when some earlier times were present. This is indicated by ordinary sentences like 'It was the case in the past, that there were times at which the Battle of Waterloo had occurred.' and 'It was the case at some times in the past that the Battle of Waterloo would occur in the future.'. Following McTaggart, the logical form of these sentences would be representable through sentences like: 'The Battle of Waterloo is past in the past in the present.' and 'The Battle of Waterloo is future in the future in the past.', where the copula in each sentence is tenseless. As a result, the event instantiates the complex three-tensed A-series characteristics 'past in the past in the present' and 'future in the future in the past'. If the A-series is real, the event 'the Battle of Waterloo' instantiates all 27 such characteristics, producing twenty-seven A-facts representable by sentences like 'The Battle of Waterloo is past in the past in the future.'. The copula in these sentences would also be tenseless. Some of these three-tensed A-series characteristics are incompatible with each other: for example, the three-tensed A-series charateristics 'past in the past in the past' and 'future in the future in the future'. The same is true for some of the facts generated by their instantiation. However, the reality of the A-series requires that the event 'the Battle of Waterloo' instantiates 27 three-tensed A-series characteristics. For that reason, this generates yet another contradiction. Claiming that the inconsistent three-tensed A-series characteristics are instantiated at different times in the past, present, and future elevates the contradiction to another level, ultimately resulting in an infinite regress. The 'obvious reply' does not refute McTaggart's argument.

Some philosophers however, argue that McTaggart's response to the 'obvious reply' only succeeds because he misinterprets the logical form of sentences like 'The Battle of Waterloo is past.'. The following sections consider two such replies. The first argues that McTaggart misconstrues the terms 'past', 'present' and 'future'. The second suggests that the contradiction only arises because of McTaggart's illicit use of tenseless copulas when representing the logical form of sentences like 'The Battle of Waterloo was future.'.

1.3 'Past', 'Present' and 'Future' as indexical terms

As previously discussed, McTaggart argues that if time is real, it is constituted by two series, the A- and B-series. He claims that the former is necessary to the reality of time because it involves events or times that instantiate different A-series characteristics and it allows for change. However, the instantiation of A-series characteristics by events or times generates a contradiction, resulting in the unreality of change and time (1.1). The 'obvious reply' contends that these characteristics are instantiated at different times, and that there is no contradiction. McTaggart rejects this claim, stating that events or times would instantiate even more complex A-series characteristics, several of which would be incompatible (1.2). The following two sections (1.3 – 1.4) outline two further defences of the claim made in the 'obvious reply', i.e. that the tensed sentences that feature in McTaggart's arguments generate no contradiction.

McTaggart's argument lays down that 'past', 'present' and 'future' are terms that represent A-series characteristics instantiated by events or times. Michael Dummett speculates that 'past', 'present' and 'future' are not predicates representing characteristics, and conjectures that they are context-sensitive indexical expressions that relate to time, similar to indexicals like 'today' or 'tomorrow' (Dummett, 1978, pp. 353-354). The terms 'tomorrow' and 'today' do not indicate characteristics, but are token-reflexive expressions that – in a sentence – serve to indicate a particular time at which something would be the case, obtain, or exist (Corazza, 2004, p. 159). The time in question would be evaluated in relation to the context when the token or utterance of a sentence containing any such indexical is produced. In the sentence 'Tomorrow it will rain.' for instance, the indexical 'tomorrow' indicates the 7th of July, if the sentence is uttered or tokened on the 6th of July, and the 25th of December, if uttered or tokened on Christmas Eve. Dummett claims that even 'past', 'present' and 'future' might be context-sensitive indexical expressions (Dummett, 1978, pp. 353-354).

E.J. Lowe (1987) adopts and develops this idea. The rest of the section illustrates how Lowe characterises linguistic expressions such as 'is past' as indexicals, and how he claims that

McTaggart's conclusion does not obtain. This thesis argues that Lowe is incorrect and that linguistic expressions like 'is past' are not indexicals. Moreover, even if Lowe's claim that these particular linguistic expressions are indexicals were correct, McTaggart's conclusion that time is unreal would still be upheld, albeit in a different set-up.

Lowe begins by claiming that the sentences '*e* is present.' and '*e* is happening now.' - where *e* would stand for an event - have the same meaning. He notes that in the first sentence, 'is present' performs the same role as the expression 'is happening now' in the second, and holds that this indicates that the two linguistic expressions have the same meaning.[1] Since 'is happening now' is an indexical, 'is present' is also an indexical. Due to the fact that McTaggart holds that 'past' and 'future' are expressions of the same kind as 'present' (McTaggart, 1927, p. 10), it would be correct to surmise that 'is future' and 'is past' are also indexical expressions. In this sense, 'The Battle of Waterloo is future.' and 'The Battle of Waterloo is past.' would be akin to sentences that contain indexicals, such as 'Christmas is today.' or 'Christmas is tomorrow.'.

In predicate logic, the logical form of 'The Battle of Waterloo is past.' and 'The Battle of Waterloo is Future.' would not be:

$\exists!x$: BofW (x) & P(x)

or

$\exists!x$: BofW(x) & F(x)

where 'P' and 'F' are the predicates 'past' and 'future'. The logical form of 'The Battle of Waterloo is present.' would instead be symbolized as:

$\exists!x \exists t$: BofW(x,*t*) & 'present' (*t*)

where 'present' would be considered an indexical expression.[2] In words the sentence would read: 'There is a definite x and sometime *t*, such that x at *t* is the Battle of Waterloo, and *t* is present'.

The sentence 'The Battle of Waterloo is past.' would be symbolically represented as

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[1] "e is present' means of course 'e is happening now" (Lowe. 1987, p.65)

[2] The translation would be analogical to translations of sentences containing indexlicals like: 'Christmas is today', i.e.: $\exists!x \exists t$: C(x,*t*) & today(*t*). In words this would read: There is a definite x, and x at t is Christmas, and 'today' is time t.

$\exists!x\exists t\, \text{BofW}(x,t)\ \&\ \text{'past'}\ (t)$

In words: 'There is a definite x and sometime t, such that x at t is the Battle of Waterloo, and t is past'.

Given these translations, the truth of a token or utterance of 'The Battle of Waterloo is present.' produced in a particular context, is not necessarily inconsistent with the truth of a token or utterance of 'The Battle of Waterloo is past.' produced in a different context. There is no inconsistency even if they are produced in the same world, provided that the two sentences are tokened or uttered at different times. Understanding 'is future' and 'is past' as indexical expressions would not require complex A-series characteristics (like 'present in the past'), as would be the case with understanding 'is future' and 'is past' as predicates standing for A-series characteristics (Lowe, 1987, p.66). McTaggart's contradiction would not obtain.

Lowe's account is questionable for two reasons. First, it is doubtful whether 'past', 'present' and 'future' are genuine indexical expressions. Second, even if they are considered to be genuine indexical expressions, McTaggart's conclusion regarding the unreality of time might still be upheld, albeit by a different line of argument.

Lowe's assertion that 'is present', 'is past' and 'is future' are indexical expressions relies on the claim that 'is present' has the same meaning as 'is happening how'. However, this is unlikely. For example, consider the sentences 'It will be the case tomorrow that my wedding is present.' and 'It will be the case tomorrow that my wedding is happening now.'. With Lowe's claim in mind, 'my wedding is present' would have the same meaning as 'my wedding is happening now'.[1] Yet, the sentence 'It will be the case tomorrow that may wedding is present.' is indexed with respect to one time only — the time indicated in the sentence by 'tomorrow'. The sentence is stating that, tomorrow, it will be the case that my marriage will be occurring then (i.e. in the date indicated by the indexical tomorrow). Conversely, the sentence 'It will be the case tomorrow that my marriage is happening now.' contains double indexing. The sentence states that it will be the case tomorrow, that I am getting married today (i.e. the day when the sentence is being tokened or uttered).

With this in mind, consider also the sentences 'Regardless of when Peter goes to Russia, Putin is the present President.' and 'Regardless of when Peter goes to Russia, Putin is now the President.'. Suppose Vladimir Putin happens to be the President of Russia whenever Peter goes there. This can be correctly articulated by tokening or uttering the sentence 'Regardless of when

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[1] Given that; "e is present' means of course 'e is happening now" (Lowe. 1987, p.65)

Peter goes to Russia, Putin is the present President.'. However, it is not correct to use 'Regardless of when Peter goes to Russia, Putin is now the President.' to represent that same fact (i.e that whenever Peter goes to Russia, Putin is the president.). Therefore, contrary to Lowe's claim, 'is present' and 'is happening now' do not have the same meaning (see also Smith, 1993, pp. 74-76.).

In addition, accepting that 'past', 'present' and 'future' are indexical expressions, and characterising the logical form of sentences like 'The Battle of Waterloo is past.' in terms of such indexicals will not allow one to effectively challenge the conclusion that time is unreal. This is the case if premise 1 of McTaggart's argument is accepted, whereby the reality of time requires the reality of the A- and B-series, as well as premise 2, which maintains that the only possibility for change involves the A-series. Interpreting 'past', 'present' and 'future' as indexical expressions is consistent with a world in which there is no change and time.

If 'past' and 'future' are indexical expressions, the truth of a token or utterance of 'The Battle of Waterloo is future' produced in December 1208, and that of a token or utterance of 'The Battle of Waterloo is past.' produced in July 1815, do not necessarily imply that the event underwent change. The truth of both tokens or utterances in the different contexts where they are produced would only imply that, from a context which includes a particular time ('1208'), the event 'the Battle of Waterloo' is correctly considered to be a future event. From another context in the same world that includes a different time ('1815'), it is correct to say that it is a past event. The truth of tokens or utterances of 'The Battle of Waterloo is future.' and 'The Battle of Waterloo is past.' produced in these contexts where 'past' and 'future are considered as indexical expressions, is consistent with a picture of the world where there is no change. In effect, it is consistent with a world where events are wrongly considered to move from the future to the present and from the future to the past, but where they actually undergo no change. Instead, if 'past', 'present', and 'future' are interpreted as predicates representing incompatible A-series characteristics, the truth of different tokens or utterances of these sentences at different times would imply and indicate that the event has either lost or gained a characteristic, and has therefore undergone change.

Indeed, Lowe's own characterisation of change and time suggests that these are features of how the world is experienced, rather than how the world presents itself. Change and time are characterised in terms of a series of 'perspectives' which individuals; 'successively and unrepeatedly adopt' (Lowe, 1987, 68). The world is experienced through sequences of; 'spatio-temporal perspectives' (Lowe, 1987, 69), that can be characterized through the formulae *p1* at *t1*, *p2* at *t2*,…*pn* at *tn*, and so on, where *p* indicates a point in space and *t* a time. For example, position *p1,t1* might be 'London Tube, 6.00 am, 14th September 2019': position *p2, t2* 'Piccadilly Circus,

6.01 am, 14th September 2019': and so on. From one perspective, a particular event may appear to be in the past, while from another it may appear to be a future event. Lowe believes that these perspectives account for both the reality for change and of time. However, since these perspectives are intrinsically tied to viewpoints of particular subjects rather than to happenings affecting the events themselves, the legitimacy of Lowe's claim is unlikely. For time to be real, time must be a feature of the world and not simply of our experience of the world or its contents from particular perspectives.[1]

1.4 The tenseless copula

In the previous sections McTaggart's argument was laid out (1.1). The argument holds that the reality of time requires events and times to instantiate incompatible A-series characteristics. This would generate a contradiction. In light of this, McTaggart concludes that the A-series is unreal. In sections 1.2 -1.3, two responses were laid out. One – the obvious reply - holds that there is no contradiction because A-series characteristics are not instantiated at the same time. The other holds that McTaggart's conclusion arises because he misinterprets terms like 'past' and 'future' in sentences like 'The Battle of Waterloo is past.' that feature in his argument. Both responses were found to be unsatisfactory. This section considers another response which holds that the contradiction arises because McTaggart misinterprets the logical form of sentences like 'The Battle of Waterloo was future.'.

McTaggart analyses ordinary tensed sentences like 'The Battle of Waterloo was future.' through sentences like 'The Battle of Waterloo is future in the past.' where the copula is tenseless. The second sentence is supposed to lay out clearly the logical form of the first and to have the same meaning. (McTaggart 1927, p. 21) C.D. Broad claims that the tenseless copulas that feature in sentences like 'The Battle of Waterloo is future in the past.' play a fundamental role in McTaggart's argument for the unreality of time. This is because different sentences containing the same subject, incompatible predicates which the subject instantiates, and a tenseless copula cannot be all true. Yet, McTaggart is mistaken in holding that the logical form of sentences like 'The Battle of Waterloo is past.' contains a tenseless copula. It is this misinterrpeation that gives rise to the contradiction (Broad, 1976, pp. 314-318). The following section presents Broad's argument in

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[1] McTaggart himself admits that we think and talk about things and events in the way in which Lowe describes time: as a passage through various points in time (see McTaggart, 1909, pp. 350-351). Yet, he holds that what we consider to be events undergoing change in time are in fact entities arranged next to each other in an unchangeable manner, which we mistakenly consider as events undergoing change. He calls this arrangement the C-series: an eternal and unchanging arrangement which is mistakenly thought of as a series of events flowing in time (McTaggart, 1927, pp. 30-31).

detail, and suggests that Broad exaggerates the role that tenseless copulas play in McTaggart's argument. Instead, the essential role in the contradiction is played by McTaggart's interpretation of linguistic expressions like 'is past' as predicates representing A-series characteristics.

There are three instances where the copula 'is' may be understood as tenseless. The first refers to sentences wherein a characteristic is predicated of a subject in a way that, if the sentence is true, what it describes would obtain in all possible worlds (Wisdom, 1929, p. 80). Cases in point are sentences like '5 is an odd number.' or 'Scarlet is a shade of blue.'. If these sentences are true, 5 would be an odd number in all possible worlds. Similarly, in any possible world, Scarlett would be a shade of blue.

The copula 'is' may also be understood as tenseless in a manner that is not relative to a time or place, but is relative to a particular world. Consider the sentence 'Water is a liquid that boils at 100o Celsius.'. The truth of this sentence in a world would imply that anywhere in that world water boils at 100o Celsius. This however, does not imply that water boils at 100o Celsius in all other worlds as well. In those possible worlds where water would not boil at 100o Celsius, the tenseless sentences 'Water is a liquid that boils at 100o Celsius.' would be false.

The other instance where 'is' may be understood as a tenseless copula is also relative to specific worlds. However, this use of the tenseless 'is' is conditional and would be used to refer to possibilities that may never occur. Consider the sentence 'Whisky is the winning drink in any party where it is served.' (Wisdom, 1929, p. 80). The truth of this sentence is relative to specific worlds. The sentence may be true relative to world w but not to world $w1$. Moreover, the truth of the sentence at w only implies that whisky will be the favourite drink at any party where it is served in w. It does not imply that whisky will be the favourite drink at any party held in w. The truth of the sentence does not exclude that there could be parties where the drink is not served in w, nor that the custom of holding parties may not even exist in that world. In effect, the truth of the sentence implies only that, relative to w, if parties are held at w and if whisky is served at any of these parties, whisky will be the favourite drink.

The tenseless copula that features in McTaggart's argument is the second type of tenseless copula. If tokens or utterances of sentences containing tensed copulas like 'The Battle of Waterloo is present in the past.' are true, they would be true in all contexts where the tokens or utterances are produced in this same world. This implies that in that world the event will instantiate the two-tensed A-series characteristic 'present in the past' at any time (Broad, 1976, p. 311-312). It would also imply that tokens or utterances of sentences referring to the same event instantiating the other

incompatible A-series characteristic cannot also be true in that world. Yet, if the A-series is real, utterances or tokens of sentences like 'The Battle of Waterloo is past in the past.' and 'The Battle of Waterloo is past in the future.' are also true in the same world. This gives rise to McTaggart's contradiction.

Broad claims that McTaggart's analysis of tensed sentences into tenseless ones is flawed. The logical form of a sentence containing a tensed copula cannot be represented through one that contains a tenseless 'is'. The sentence that would result (e.g. 'The Battle of Waterloo is past in the future.') cannot be considered a paraphrase of the object sentence (e.g. 'The Battle of Waterloo was future.'), having the same meaning as McTaggart claims (See McTaggart, 1927, pp. 26-27; see also Farmer, 1990, p. 314).

This is evident when considering the truth-conditions of the two types of sentences. If two sentences have the same meaning, they would have the same truth-conditions. Yet the truth-conditions of sentences containing tensed and tenseless copulas are significantly different. For example, the sentence having the tenseless copula 'The temperature at which water boils is 100o Celsius.' is true if water boils at 100o Celsius in any context in a determinate world. The truth-conditions of sentences containing tensed copulas are noticeably different. The sentence 'Messi's ball is in Britain.' where the copula is tensed, is true if Messi's ball is in Britain at the time when the sentence is tokened or uttered; iff at the time when the token or utterance is produced Messi's ball instantiates the characterististic 'being in Britain'. The truth-conditions of this sentence do not require that in the same world 'Messi's ball' instantiates the property 'being in Britain' at other times as well (see Savitt, 2001, pp. 263-264).

The same reasoning holds for 'The Battle of Waterloo was future.', and 'The Battle of Waterloo is (tenselessly) future in the past.'. The truth of a token or utterance of the sentence 'The Battle of Waterloo is future in the past.' containing a tenseless copula, implies that the event instantiates the property 'future in the past' at any time in the world in question. In contrast the tensed copula in 'The Battle of Waterloo was future.' would only imply that this event instantiated the characteristic 'future' at some time(s) prior to when the token or utterance is produced. Contrary to what McTaggart claims then, 'The Battle of Waterloo is (tenselessly) future in the past.', cannot be considered as a paraphrase of, and having the same meaning as, 'The Battle of Waterloo was future.'.

Broad argues that McTaggart's contradiction arises only at that part of the argument when he considers tenlesess sentences 'The Battle of Waterloo is (tenselessly) future in the past.', as

legitimate translations of tensed sentences like 'The Battle of Waterloo was future.', and as having the same meaning. But these translations are illicit, and the second sentence does not express the logical form of the first. The contradiction is therefore not genuine.

This thesis insists that Broad exaggerates the role that tenseless copulas play in McTaggart's argument. Even if, unlike what McTaggart claims, 'The Battle of Waterloo was future.' and 'The Battle of Waterloo is (tenselessly) future in the past.' do not have the same meaning and one cannot be considered a paraphrase of the other, the contradiction still arises. It arises if tensed object sentences like 'The Battle of Waterloo was future.' and 'The Battle of Waterloo is past.' are taken to involve the predication of incompatible A-series characteristics of events in the subject-place. This is illustrated in the rest of the section.

Consider Broad's claim that if sentences describing the instantiation of different incompatible characteristics by the same event have tensed copulas, no contradiction is generated (Broad, 1976, 312-314). This would be due to fact that the logical form of sentences like 'The Battle of Waterloo is past.' or 'The Battle of Waterloo is future.' would be similar to that of tensed sentences like 'Messi's ball is in Britain.' and 'Messi's ball is in Argentina.'. In both cases we have two sentences having the same subject, tensed copulas and incompatible predicates being attributed to the same subject. Now in the case of the sentences concerning Messi's ball, there might be no contradiction between true tokens and utterances of 'Messi's ball is in Britain.' and 'Messi's ball is in Argentina.' if these are produced at different times. It would seem that, similarly, there need not be any contradiction between true tokens or utterances of 'The Battle of Waterloo is past.' and 'The Battle of Waterloo is future.' produced at different times. As with characteristics like 'being in Britain' and 'being in Argentina', the characteristics 'future', 'present' and 'past' would be instantiated by the same event not simultaneously but 'successively' (Broad, 1976, p. 313).

The rest of the section argues that even if the logical form of the sentences that concern Messi's ball and those that concern the Battle of Waterloo are to an extent similar - i.e. a characteristic is being predicated in the subject place, and the copula is tensed - there is also a significant difference between them. This difference makes it the case that tokens or utterances of both 'Messi's ball is in Britain.' and 'Messi's ball is in Argentina.' may be true at different times without contradiction, while this may not be the case with tokens or utterances of 'The Battle of Waterloo is past.' or 'The Battle of Waterloo is future.'. The claim will be made that what accounts for the possibility of having tokens or utterances of 'Messi's ball is in Britain.' and 'Messi's ball is in Argentina.' true at different times without inconsistency is not (just) the tensed copulas these involve, but the type of entity in the subject place.

Suppose a token of 'Messi's ball is in Britain.' produced on the 12th of June 2008 is true, and a token of 'Messi's ball is in Argentina.' produced on the 11th of June 2009 is also true. These two tokens are true despite the sentences in question involving different, incompatible, characteristics. They are true because the entity in the subject place would exist at the different B-times indicated by the two dates ('12th June 2008' and '11th June 2009'), and would instantiate the different and incompatible characteristics at these different times. Messi's ball instantiates the characteristics 'being in Britain' on June 12th 2008, and 'being in Argentina' on 11th June 2009. As a result of Messi's ball instantiating these different characteristics at these different times, there is no contradiction between different tokens of 'Messi's ball is in Britain.' and 'Messi's ball is in Argentina.' being true at certain distinct times.

Conversely, the event 'The Battle of Waterloo' can exist at one B-time only, the time indicated by the date '16th June 1815' (McTaggart, 1927, p. 12). The truth of tokens or utterances of sentences 'The Battle of Waterloo is future.', 'The Battle of Waterloo is present.' and 'The Battle of Waterloo is past.' produced at different times then, cannot be accounted for in terms of the event in the subject place existing at different B-times, and instantiating different but incompatible A-series characteristics at these times. The event can only gain or shed characteristics at the only time at which it exists; the time indicated by '16th June 1815'. The truth of these sentences and the successive instantiation of A-series characteristics, can only be accounted for and mapped in terms of the A-series and of A-series chatacteristics.

The event – existing only at one time - would first have instantiated the A-series characteristics 'future', then the A-series characteristic 'present', and now instantiates the characteristic 'past'. This implies that the sentences 'The Battle of Waterloo was future.', 'The Battle of Waterloo was present.' and 'The Battle of Waterloo is past.' are all true. As McTaggart notes, this would in turn imply that sentences like 'The Battle of Waterloo is future in the past.', 'The Battle of Waterloo is present in the past.' and 'The Battle of Waterloo is past in the present.' are also true at the time when the thesis is being written. If tense is accounted for in terms of A-series characteristics, the event 'the Battle of Waterloo' instantiates the two-tensed complex A-series characteristics like 'past in the present', 'present in the past', and 'future in the past'.

Yet, as McTaggart further notes, if the A-series is real, tokens or utterances of nine such sentences - sentences like 'The Battle of Waterloo is past in the past.' and 'The Battle of Waterloo is future in the future.' - will be true at different times. This implies that the event in the subject place instantiates nine two-tensed A-series characteristics. Some of these characteristics, like for instance 'future in the future' and 'past in the past', are incompatible with each other.

Suppose now, contrary to what McTaggart claims and *pace* Broad, that the copula in sentences describing these facts - e.g. 'The Battle of Waterloo is past in the past.' and 'The Battle of Waterloo is future in the future.'. - is tensed. This would imply that the event does not instantiate the two-tensed A-series characteristics concurrently but successively. The contradiction however, will still not be avoided. The event in the subject place cannot instantiate a two-tensed A-series characteristic (e.g. 'future in the future') at one B-time at which it exists, and an incompatible characteristic (e.g. 'past in the past') at a different B-time at which it also exists, as with the sentences concerning Messi's ball. The Battle of Waterloo can instantiate A-series characteristics at the only B-time at which it exists, i.e. July 16th 1815. Their successive instantiation by this event can only be accounted for and mapped in terms of the A-series. The Battle of Waterloo would instantiate the characteristic 'past in the past' when, for instance, the time at which this sentence is being written is present,[1] and would have instantiated the characteristic 'future in the future' when certain times in the past (e.g. the times indicated by 'June 12th 1401') were present.[2] This can be represented by sentences like, 'The of Waterloo is past in the past in the present.' and 'The Battle of Waterloo is future in the future in the past.'. The truth of tokens or utterances these sentences at different times, would imply that the event 'The Battle of Waterloo' instantiates the three-tensed A-series characteristics 'past in the past in the present' and 'future in the future in the past'.

McTaggart would note that tokens and utterances of 27 such sentences representing this event instantiating such three-tensed A-series characteristics - sentences like 'The Battle of Waterloo is future in the future in the future.' and 'The Battle of Waterloo is past in the past in the past.' - will be true (see McTaggart, 1927, pp. 21-22). Even if the copula in these sentences is tensed, and tokens or utterances of these sentences are true at different B-times,[3] the contradiction is still not avoided. Incompatible characteristics like 'past in the past in the past' and 'future in the future in the future' will be correctly predicated of the same event.

The event 'the Battle of Waterloo' cannot instantiate the characteristics 'past in the past in the past' and 'future in the future in the future' at different B-times (as with Messi's ball), since it exists at one time only. The succeeding instantiation of incompatible A-series characteristics like 'future in the future in the future' and 'past in the past in the past' by the event 'the Battle of Waterloo' can only be accounted for in terms of the A-series. This account will involve A-series

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[1] i.e. when the B-time at which this sentence is written instantiates the characteristic present

[2] i.e. when these times instantiated the characteristic 'present'.

[3] e.g. tokens or utterances of 'The of Waterloo is past in the past in the present.' are true when 2022 is present; tokens or utterances 'The Battle of Waterloo is future in the future in the future.' were true when 1814 was present.

characteristics that are more complex (e.g. 'past in the past in the past in the present' or 'future in the future in the future in the past'), - some of which are incompatible - which the same event instantiates albeit existing at one B-time only. The regress will be infinite.

It may be semantically correct, as Broad suggests, that the logical form of sentences like 'The Battle of Waterloo was present.' cannot be represented through sentences that contain a tenseless copula. However, if 'past', 'present' and 'future' are considered to be terms that represent incompatible A-series characteristics, McTaggart's paradox will be generated nevertheless.

1.5 Conclusion

McTaggart's argument for the unreality of time is premised on the claims that time and events are arranged along the A- and B-series, and that the reality of time requires the reality of change. McTaggart maintains that the only change there can be is a change in the tenses of events and times. These tenses are determined by A-series characteristics 'past', 'present' and 'future', which are instantiated by events and times. As such, these A-series characteristics are incompatible. Yet, each event or time instantiates all three characteristics. As a result, McTaggart concludes that the A-series and time cannot be real.

Broad believes that McTaggart's argument is flawed by how he analyses tensed sentences like 'The Battle of Waterloo is future.'. McTaggart would, fallaciously, replace a tensed copula by a tenseless one in sentences that feature in his argument. Yet, Broad exaggerates the role that tenseless copulas play in McTaggart's argument. In fact, it is the A-series characteristics instantiated by events or time that play a major part. Then again, E.J. Lowe challenges McTaggart's claim that 'is past', 'is present' and 'is future' are predicates that represent A-series characteristics, instead suggesting that they are indexical expressions. This would imply that a contradiction is not generated by the truth of different tokens or utterances of sentences like 'The Battle of Waterloo is present.' and 'The Battle of Waterloo is past.'. Lowe's claim that 'is present', 'is past' and 'is future' are indexical expressions is however questionable. Moreover, assuming that they are indexical expressions, the truth of tokens or utterances of sentences which contain different indexical expressions is consonant with a changeless, and therefore timeless, world.

Chapter 2 – The Later Wittgenstein on Language and Meaning.

2 Introduction

In the previous chapter McTaggart's argument was laid out. The current chapter addresses issues that relate to language, rather than time, with reference to Wittgenstein's later philosophy. Specifically, this chapter:

a. provides a contextual overview of Wittgenstein's thoughts on issues regarding language and meaning.

b. indicates the break Wittgenstein made with some of his earlier views on these issues.

c. introduces the notion of language-game, which plays a fundamental role in Wittgenstein's later philosophy.

d. illustrates the role that rules and hinge assumptions play in language-games, and explores what Wittgenstein meant when he claimed that the meaning of a linguistic expression is its use.

The themes discussed and elaborated in this chapter will be used in subsequent chapters to reject McTaggart's argument from a Later-Wittgenstenian perspective (Chapter 3), and to defend a version of presentism from three sentence-related objections. These objections to presentism have to do with the content, ontological commitments, and truth of sentences like 'Napoleon was the First Emperor of France.' (Chapters 4 – 7).

2.1. The background to Wittgenstein's later thoughts

In Wittgenstein's day (1889-1951) and later, many philosophers upheld three theses in relation to the meaning of linguistic expressions:

a) the meaning of linguistic expressions – in the sense of what one grasps or understands in understanding the linguistic expression (Grayling, 1988, p. 83) - is something non-linguistic (i.e. independent of the linguistic expression and its use), which the linguistic expression expresses in natural language. Philosophers can reveal and characterise this meaning independently of the use of the linguistic expression.

b) all linguistic expressions have some meaning – their conventional meaning – which is constant throughout their uses (i.e. which they express in all contexts where the linguistic expression is uttered or tokened). This is something that semantic analysis can characterise.

c) linguistic expressions have meanings which are not fully determined by facts that concern their use, and are independent of such uses.[1]

The last two theses are not always distinguished in relevant literature. However, the second describes an apparent feature of linguistic expressions, while the third is a meta-semantic claim. It is possible to hold that all linguistic expressions have conventional meanings which are constant throughout each and every use (thesis 2), yet believe that this conventional meaning is fully determined by facts that concern their use (against what thesis 3 holds). These theses were not upheld by every philosopher in Wittgenstein's day (or after). However, they have been endorsed by many philosophers, including Wittgenstein in his early phase.

Regarding the first thesis, many philosophers have claimed that what one grasps in understanding a linguistic expression is something non-linguistic: something that is distinct from the linguistic expression itself and from its use, which philosophers can uncover and characterize (Biletzki, 2004. See also Lewis, 1975, p. 3). Consider sentences. Essentially, these are a collection of words strung together according to the grammatical rules of a particular natural language. Some philosophers consider the meaning of sentences to be propositions understood as abstract entities, which are part of the world but have no; 'spatial location [and are distinct from] sentences' (see Merricks, 2007, p. 6). Others maintain that the meaning of sentences are not abstract entities that are part of the world, but are in fact sets of possible worlds (See Lewis, 1970). The meaning of 'The Greeks defeated the Romans.' – what one grasps in understanding the sentence - would be those possible worlds where the Greeks did defeat the Romans. Other philosophers argue that the meaning of a sentence is not an entity like an abstract proposition or a set of possible worlds, but are the truth-conditions of the sentence. It is the truth-conditions of a sentence that would be grasped or apprehended when understanding the sentence in question (See Davidson, 1967).

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[1] The last two theses therefore, are not about what is it that one grasps in understanding a token or utterance of a linguistic expression. However, assuming that what one grasps in understanding the token or utterance of a linguistic expression is something non-linguistic, the second thesis would hold that there is a common non-linguistic meaning that is grasped whenever a token or an utterance of the same linguistic expression is produced. The third thesis would hold – given this assumption – that the fact that a particular linguistic expression expresses a certain non-linguistic meaning is not fully determined by facts concerning the use of the linguistic expression.

The early Wittgenstein characterised the meaning of sentences, such as 'Peter is sitting at the table.' or 'Water is made of atoms.', in terms of 'elementary propositions'. By 'propositions', Wittgenstein is not referring to non-linguistic entities, like the abstract propositions mentioned in the previous paragraph, or to sets of possible worlds. Instead, by 'proposition' he understands a sentence considered with respect to its meaning (Kenny, 1984, pp. 1-7).[1] The Early Wittgenstein held that everyday sentences like 'Peter is sitting at the table.' or 'Water is made of atoms.' can be analysed into further sentences, the most basic of which would be elementary propositions. The meaning everyday sentences like 'Water is made up of atoms.' would have, would be due to the meaning of the elementary propositions in which they can be anlaysed.

Elementary propositions would be sentences made up of Wittgenstein refers to as 'names'. These are not proper names like 'Paul' or 'Mary', but signs that stand proxy for what he called 'simple objects' (Wittgenstein, 1994, p. 5).[2] The meaning of a name – in the sense of what one grasps when understanding the name - would be the simple object for which it would stand proxy. The meaning of an elementary proposition is a thought that represents a 'state of affairs'; i.e. a thought that pictures an arrangement of simple objects (See Wittgenstein, 1994, p. 19). By expressing this thought, the elementary proposition itself would picture the state of affairs in question If the elementary proposition is true, the state of affairs it represents would be part of the world. If not, it would be false. Therefore, the early Wittgenstein implicitly upheld the first thesis. For him it is non-linguistic entities — simple objects that are the meaning of names, and thoughts that represent the state of affairs for these elementary propositions — that are the meaning of the constituents of the linguistic expressions we use in everyday life.

Regarding the second and third theses, most philosophers acknowledge that the use of a linguistic expression in a particular context may influence the meaning or asserted content it has when it is used in that context. The meaning or asserted content a token or utterance of a linguistic expression has when it is produced in particular context, is influenced by various factors. It is influenced by the distinctive features of speakers and listeners, like the intention held by an individual who uses the linguistic expression, or how others interpret the individual. It is also influenced by circumstances and activities where the linguistic expression is used, such as the time, place, and world where the linguistic expression is uttered or tokened (see Silk, 2016, pp. 9-29). An utterance or token of the linguistic expression 'Gas station around the corner.' produced by a

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[1] Hence two different sentences that have the same meaning, like 'The Greeks defeated the Persians.' and 'The Persians were defeated by the Greeks.', would be the same proposition.

[2] Wittgenstein does not clearly state what these simple objects are, although he claims that they are 'ungenerated', 'indestructible' and may combine with other simple objects in what he called 'states of affairs'. (See Wittgenstein, 1994, p.7)

cartographer who is charting buildings in an identified area will have a particular asserted content. This utterance or token would indicate a building located at a specific place that ought to be included in the cartographic exercise. Another token or utterance of the same linguistic expression would have a different asserted content in the context of a conversation between two persons in a car, after the driver notices that this is low on fuel. Here the token or utterance of 'Gas station around the corner.' would not only indicate where the gas station can be found, but also invite the listener to drive in that direction. In each case, contextual features would influence what the participants understand regarding the different tokens or utterances of the same linguistic expression produced in the two different conversations.

Now the second thesis maintains that, no matter how much the context where tokens or utterances of a linguistic expressions are produced influences the meaning and asserted contents these have in each particular situation, these tokens or utterances would share a conventional meaning that is; 'invariable in whatever context the expression may be used' (Kratzer, 1977, p. 337). This would be the 'meaning proper' (Kratzer, 1977, p. 337) of the linguistic expression, which; 'semantic analysis … should capture' (Kratzer, 1977, p240). It can be represented independently of the uses of the linguistic expression through formulae like:

the conventional meaning of linguistic expression x, in any context where x is tokened or uttered, is ø

The existence of a conventional meaning that stays invariable wherever the linguistic expression is used would explain why different tokens or utterances of a linguistic expression are tokens or utterances of the same linguistic expression, despite the difference in their asserted contents due to distinctive contextual features. It explains why, in the previous examples, the two tokens or utterances of 'Gas station around the corner' are tokens or utterances of the same linguistic expressions.[1]

The early Wittgenstein implicitly accepted this thesis. The linguistic expression 'Gas station around the corner.' might be used in various contexts and for a variety of reasons. These contexts may affect the meaning or asserted contents that tokens or utterances of the expression have in each circumstance of use. However, the linguistic expression can be analysed into a number of

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[1] This contrasts with the case of different tokens or utterances of homonymous sentences like a token or utterance of 'Go to the bank.' which instructs an individual to travel to a financial institution in one context, and a token or utterance of 'Go to the bank.' which invites one to move to the side of a river in another

elementary propositions. These elementary propositions would picture a specific state of affairs in any context where 'Gas station around the corner.' is tokened or uttered.

The third thesis is a metalinguistic theory which suggests that the meaning of a linguistic expression is not fully determined by the features of its use in the contexts and circumstances where it is employed, and is independent of such uses (Searle, 1978, 207).[1] That features of use may determine the asserted content of a token or utterance of a linguistic expression in the context where it is produced is uncontroversial. What this thesis claims though, is that these features do not fully determine the meaning of the utterance or token. That linguistic expressions have such context-independent meanings may be supported by the following. Consider someone who finds a scrap of paper with 'Gas station around the corner.' written upon it. That person would understand the meaning of the linguistic expression without having any knowledge about such features as: the intent behind its notation; which gas station it is or was referring to; the nature of the document itself; the person who wrote the sentence; and other features concerning the context in which the sentence was written.

The early Wittgenstein implicitly upheld this third thesis as well. He did recognise that people use the same linguistic expression for various reasons and in a variety of contexts during everyday life. He accepted that ordinary language includes conventions that are highly complex, and that for each context of use; 'a great deal is added … [which] is not said' (Kenny, 1993, p. 60). In the *Tractatus* however, the semantic relevance of such contextual and use aspects is generally ignored. All linguistic expressions have a meaning that is not determined by facts relating to their use. This is their proper meaning. Again, consider the different tokens or utterances of 'Gas station around the corner'. As previously mentioned, for the early Wittgenstein such linguistic expressions can be analysed into several elementary propositions. These are made up of names linked together, and express a thought which pictures some state of affairs. Each elementary proposition expresses the same thought – representing the same state of affairs - irrespective of the context where 'Gas station around the corner.', is used. That each particular elementary propositions depicts a particular state of affairs and only that state of affairs is determined by the fact that each name making up the elementary propositions in question would be a stand-in for a determinate object, and that in the elementary proposition these names are arranged in a determinate way.[2] This is in

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[1] For instance, with regards to sentences, there is consensus amongst a good number of philosophers that their meaning; 'is ultimately determined by the meaning of its constituent words (or morphemes) and the general rules according to which these elements are arranged' (Searle, 1978, 207). The meaning of the constituent words or morphemes, would then be determined according to particular theories each individual philosopher would uphold.

[2] 'Names' and 'objects' understood in the early Wittgenstein's sense, as illustrated above.

no way related to the uses the linguistic expression 'Gas station around the corner.' has in the various contexts where it is/may be employed.

2.2. The Later Wittgenstein

In the previous section, three theses which the early Wittgenstein upheld were laid out (2.1). This section describes Wittgenstein's rejection of the three theses. This will lead to introducing the notion of language-game (2.3), and to the exposition of Wittgenstein's later views about meaning (2.4).

The later Wittgenstein rejects the first thesis mentioned in the previous section, namely that the meaning of a linguistic expression – whatever is grasped in understanding the linguistic expression, and that which the linguistic expression expresses in a natural language – is something non-linguistic (i.e. independent of the linguistic expression and its uses) to be uncovered and characterised independently of its use (Hacker, 1986, p. 129; Grayling, 1991, p. 70). In *Philosophical Investigations*, Wittgenstein ridicules this particular project, comparing it to an individual who tries to understand money according to a product that has been purchased, rather than its use (Wittgenstein, 1995, p. 49). He also came to reject the previous contention that all meaningful sentences we use can be analysed into elementary propositions the meaning of which are thoughts that picture states of affairs. There are sentences which cannot be analysed into elementary propositions, but which are meaningful nonetheless (see Wittgenstein, 1995, pp. 46–47). He also rejected his previous claim that every meaningful word has an entity that is correlated to it, which entity would be the meaning of the word (Wittgenstein, 1995, p. 1). As with sentences, there are perfectly meaningful words which are not correlated to any entity. In the end, Wittgenstein asserts that there are countless kinds of linguistic expressions, including countless types of words and sentences, and it is unreasonable to assume that the meaning of all words or all sentences can be accounted for in the same way: along the same model (e.g. holding that the meaning of any word is an object or an entity see Wittgenstein, 1995, pp. 11-14).

The later Wittgenstein does not deny the second thesis outright. He does not reject entirely the claim that there are some linguistic expressions that have conventional meanings which are constant throughout each use. Cases in point are linguistic expressions that express concepts that include under them objects that share some common set characteristics. An example is the noun 'computer'. In any context where 'computer' is used as a noun, the term would denote a machine that stores and processes data. 'Storing and processing data' are characteristics attributed to all machines included under the noun 'computer', in virtue of which all these machines are grouped

under the same term. These common characteristics would then allow semantic analysis to characterize a conventional meaning the term would have in all contexts of use. Yet, the later Wittgenstein holds that not all linguistic expressions have conventional meanings that are constant throughout their use. This is clearly indicated by his comments on another noun, the noun 'game'.

The noun 'game' indicates several activities, which however do not share a common set of characteristics in virtue of which they are grouped under the same word. Some games resemble others, since they use similar equipment like balls and bats. Other games do not include any objects, but operate using some kind of scoring system and are centered around either winning or losing (for example, the game 'scissors, rock, paper'). Other games do not have points or a contest system (e.g. solitaire). The activities included under the term 'game' then, do not share a common set of characteristics in virtue of which they are grouped together, but share; 'incomplete similarities' (Schulte, 1992, p. 111). What links all of them together is; 'a complicated network of similarities and relationship overlapping and criss-crossing' (Kenny, 1993, p. 163). Wittgenstein calls these overlapping similarities or relationships 'family resemblances'.[1] The fact that the noun 'game' is a linguistic expression the correct use of which does not depend on the presence of common characteristics between all activities falling under the term, precludes the possibility of rigidly drawing a conventional meaning of the word along such lines as:

> in any context where 'game' is used as a noun, its shared conventional meaning is 'an activity that has a determinate set of characteristics *a*, *b*, …*n*.'.

The later Wittgenstein suggests that philosophers should only consider language; 'in its natural environment … not as a system of words or sentences abstracted from use' (McGinn, 1997, p. 39). Here one would find; 'everything that is essential to the actual functioning of language' (Wittgenstein, 1995, p. 46). This led Wittgenstein to reject the third theses: the idea that linguistic expressions have meanings which are not fully established by facts about their use, and are independent of the latter. If linguistic expressions had meanings that are not fully established by facts about their use and are independent of these, these meanings can be characterized independently of the uses the linguistic expressions in question would have. In the opening sections of *Philosophical Investigations* however, Wittgenstein presents several hypothetical situations that aim to demonstrate the futility of characterizing the meaning of linguistic expressions independently of their uses (see Wittgenstein,1995, pp. 53–88; McGinn, 1997, p. 39).

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[1] These resemblances and similarities provide an explanation as to why it is the same word, and not a homonym, that is used on all the occasions where 'game' is used as a noun.

One such example is the *reductio ad absurdum* involved in a hypothetical situation where a buyer attempts to purchase apples by handing a shopkeeper a list with the words 'Five red apples.' written upon. According to the theses which Wittgenstein is rejecting, these words would have a meaning that is not fully established by, and is independent of, facts that concern their use. Through the example, Wittgenstein suggests that if this were to be the case, in order to understand what is written, the shopkeeper would first have to correlate each word in the sentence to the meaning each has independently of its use. He would need to open the drawer marked 'apples' to match the word to these objects. He would then need to consider the meaning of the word 'red' and see which entities falling under the word 'apples' match this, and subsequently go through the; 'series of cardinal numbers' (Wittgenstein, 1995, p. 3) until he arrives at 'five', correlating one red apple to each number. Later he would have to take into consideration what – given the features of his context of use – the sentence means in his specific context, and act accordingly.

Wittgenstein argues that this is obviously not what happens when such events occur. The shopkeeper grasps what is written on the scrap of paper not by correlating each word making up sentence to the meaning it would have independently of its uses, then determining the meaning of the sentence as a whole, and finally working up his way laboriously to see what he should do in his determinate context. He grasps the meaning of the written message by recognizing at once that in his context he has to act in a determinate way. For instance, in the shopkeeper's example there is no issue of; 'what is the meaning of the word 'five'' (Wittgenstein, 1995, p. 3) independently of its employment in determinate situations, but only of; 'how the word 'five' is [concretely] used' (Wittgenstein, 1995, p. 3). The same holds for the other words, as well as for the sentence itself.

While Wittgenstein denies that the meaning of a linguistic expression is not fully established by the facts which govern its use, he does not reject the notion that some linguistic expressions have meanings that are context insensitive in relation to such things like time, place, and intention. The meaning of the proper name 'Napoleon Bonaparte' and of the sentence 'Napoleon fought 40 battles.' used during a history discussion in Bristol and in a similar discussion in Paris will be the same. In both contexts, tokens or utterances of the name and the sentence will have the same meaning. Yet, Wittgenstein maintains that these different tokens or utterances of the name 'Napoleon' and of the sentence 'Napoleon won 40 battles.' do not have the same meaning, because of something that is independent of and unrelated to their use. They have the same meaning because of facts which relate to their use.

The tokens or utterances are both used in the same activity, for reasons that are more or

less similar, to do more or less the same thing.[1] The claim a later Wittgenstenian approach would make is that these features of use alone suffice to explain the meaning of the two tokens or utterance. This is in essence the main tenet of the theory of meaning attributed to Wittgenstein in his later philosophy, which will be discussed in further detail later in the chapter (2.4). Prior to this, the following section describes Wittgenstein's characterisation of the activities where linguistic expressions acquire the meaning they have.

2.3. Wittgenstein's later project and the notion of language-game

As previously mentioned, Wittgenstein rejects the following three theses he previously upheld:

a)   the meaning of any linguistic expression – what we grasp or understand in understanding the linguistic expression - is something non-linguistic (i.e. independent of the linguistic expression and its uses) , which the linguistic expressions conveys in natural language. Philosophers can characterize this meaning independently of the uses of the linguistic expression.

b)   all linguistic expressions have conventional meanings that are context invariant.

c)   the meaning of a linguistic expression is not completely determined by the facts which relate to its use, and can be characterized independently of such uses.

Wittgenstein's philosophical approach to language in his later philosophy supports this rejection of all three theses. This approach will be illustrated in the rest of the section, where the notion of language-game will also be introduced.

The philosophical approach to language Wittgenstein adopts in his later philosophy is fundamentally 'descriptive'. It involves surveying, examining and describing the variegated, idiosyncratic and different uses of various linguistic expressions in the different contexts, situations and activities where they are normally employed. According to Wittgenstein in his later philosophy, linguistic expressions are too diverse in their use, and cannot be streamlined into one model, even if they belong to the same type (e.g. names, nouns, adjectives). An approach that describes the various ways and situations in which linguistic expressions of a particular type are used, would respect this diversity (see McGinn, 1997, p37).

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[1] This is also reflected in the previous example involving a scrap of paper with 'Gas station around the corner.' with no defined context. This will be taken to have a particular meaning because it will be presumed by readers to have had a definite use as part of some activity: e.g. indicating the location of a gas station to the reader.

It might be thought that Wittgenstein is here making an obvious and trivial point; noting that the circumstances where a linguistic expression is tokened or uttered are semantically relevant. For instance, it is generally accepted that, with regard to certain linguistic expressions, the concrete conversational situations determine the communicated contents that tokens or utterances of these linguistic expressions have in different contexts. (These conversational situations include the person/s engaged in conversation, the time, place and world at which a linguistic expression is tokened/uttered or interpreted - see Kaplan, 1989- as well as other features like beliefs speakers and listeners might share - see Stalnaker, 1972.) Thus, contextual features like time and place determine that different communicated contents are expressed by distinct tokens or utterances of 'There are no cats here.'. Peter uttering 'There are no cats here.' in his house Bristol on May 20th 2021, is saying that there are no cats in his house. Wellington's utterance of the same sentence in his London house on June 12th 1805 is saying that there no cats in Wellington's house on June 12th 1805. One needs to be aware of these contextual features (time and place) to understand what Peter and Wellington are saying in each case. Wittgenstein would have no trouble accepting this, but would add that the features of use that are relevant to his descriptive exercise do not involve merely the conversational situations mentioned above.

The descriptive approach Wittgenstein adopts in his later philosophy requires noting the circumstances or occasions when linguistic expressions are employed and what is considered to be their correct use. This includes surveying how people typically respond and react to the use of a linguistic expression, what responses are considered to be correct, and what intentions typically lie behind the use of the linguistic expression (see Malcolm, 1995, p. 164). It also requires indicating the assumptions that people make when employing determinate linguistic expressions.[1]

In particular, Wittgenstein refers to the activities in which linguistic expressions are normally employed which (for various reasons) he compares to games. He calls these activities language-games. Wittgenstein does not provide a precise and accurate definition for this term, nor does he produce a set of characteristics that enables an activity to be classified as a language-game. Admittedly, there are features that are common to all language-games: they are activities, they are governed by rules, and they involve human subjects (Wittgenstein, 1995, p. 12; Wittgenstein, 1995, p. 86). Yet, these features do not exclusively determine that an activity is a language-game. Driving is a human activity that is governed by rules. However, driving itself is not a language-game.

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[1] Wittgenstein adopts this descriptive approach with regards to most philosophical issues. When considering a particular notion, concept or idea in any branch of philosophy, it is appropriate to begin with describing how linguistic expressions are normally used when expressing the said notion, concept or idea.

Wittgenstein considers that any attempt to define 'language-game', in terms of a set of common characteristics – some definition like: 'activity Y is a language-game if it possesses features i, ii, iii, ... n, and is a language-game by virtue of having these features' to be futile (Wittgenstein, 1995, p. 31). As with the term 'game' what is common to different language-games are 'family resemblances' (Wittgenstein, 1995. pp. 31-32). These are interrelating resemblances and connections between such activities (Kenny, 1993, p. 163), which make different language-games; 'more or less related to one another' (Wittgenstein, 1995, pp. 46-47). One group of language-games may share a reasonable number of features with another, while other language-games might only share a few of these features. The impossibility to identify a set of common characteristics for all language-games in virtue of which they are 'language games' explains why Wittgenstein illustrates these activities primarily through examples.

The type of activities that Wittgenstein identifies as language-games varies throughout his work. 'Language-game' was first used as a metaphor in a 1930 exchange on mathematics. Its first appearance in a field unrelated to mathematics was in *Philosophical Grammar*. In this text, language-games are conceived as artificial constructs that are used to illustrate the actual linguistic practices in which we participate when engaging in different undertakings such as purchasing items at the market, discussing ethics, teaching mathematics, and so on (Hintikka & Hintikka, 1989, p. 191). The idea is that by looking at how language functions in these simple models, one will be able to; 'see into the workings of any language [use], however complex it may be' (Hardwick, 1971, p. 77); clarifying and highlighting features that are normally overlooked (Hacker and Baker, 1998, p. 275).

In a subsequent publication *Blue Book*, 'language-game' is not only used to indicate simple artificial constructs, but also unsophisticated forms of language use, like when children start using words. They include; 'activities such as the naming of objects, the repetition of names and actual word-games …by means of which children learn their native language' (Hunnings, 1988, p. 141. See Wittgenstein, 1965, p. 17). Even these unsophisticated use of linguistic expressions help understand how language functions in more complex situations (Hardwick, 1971, p. 10).

Philosophical Investigations has the most extensive and varied list of language-games. At this stage, language-games are no longer just objects of comparison through which the use of language is illustrated, nor are they activities in which young children engage when they are learning to speak. Language-games are now considered as; 'complete systems of human communication' (Hintikka & Hintikka, 1989, p. 237) where linguistic expressions are actually used.[1] It is this mature

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[1] Wittgenstein writes; 'the whole of language and the activity with which it is interwoven, this… [is called] the 'language-game'' (Wittgenstein, 1995, p. 5).

characterisation of language-games - the activities where linguistic expressions are used rather than objects of comparisons or simple models - that this thesis considers throughout its argument.

As examples of language-games Wittgenstein refers to various activities, that can vary from simple engagements where one primarily utters words to do something or get something done, to others that require a more intricate and complex use of language and behaviour. For instance, he mentions activities like the exchanges in the construction industry where a master primarily uses single words like 'slab' or 'mortar' (rather than sentences) to order a subordinate to get her a particular object or material, as an example of language-games. Other language-games are more complex activities, like activities where one uses language to describe the appearance and/or the characteristics of objects around him, as when one uses 'The cat is on the mat.' to describe the whereabouts of his pet to his wife. Others are activities where linguistic expressions are used to speculate and/or report about events, as in a discussion of current affairs, as well as other undertakings where one forms and tests hypotheses, and presents the result of experiments, as in many natural sciences. A different language-game is the activity where language users use linguistic expressions to express their sensations, recall past wishes or dreams (Wittgenstein, 1995, p. 184), or to describe impressions, and articulate their mental state/s, as in psycho-analysis (see Kenny, 1993, p. 165). Language-games are also activities where linguistic expressions are used to act, play, sing, guess, thank, curse, pray or perform a ritual. All these language-games do not comprise only the use of linguistic expressions to do something (such as describing, commanding, praying, and so on), but also the actions and behaviours that normally accompany the use of different linguistic expressions in specific situations and circumstances. Something else that is worth nothing, is that participants who engage in a language-game in various contexts, tend to share standard or typical motives and intentions when using a particular linguistic expression or other in that language-game.[1]

In regard to these examples of language-games, it is important to note that Wittgenstein is not confusing language-games with speech acts: i.e. deeds which we perform by tokening or uttering certain linguistic expressions (for example, promising, which one performs by uttering

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[1] For instance, in the language-game where one uses words like 'slab' and 'beam' to ask an assistant to get her these things, typical intents would be repairing a particular ceiling, covering a newly built room, preparing material for the following day's work, etc. The listener fulfils the speaker's intent if he behaves in a certain way, like taking the things the master asked for and handing them to her. In the language-game where we discuss things around us on the other hand, 'The Cat is on the mat.' is typically used with the intention of indicating what objects exist at a particular location, describing how such objects are related to each other, or answering questions regarding the cat's whereabouts. The typical behaviour produced in relation to the tokening or uttering of 'The cat is on the mat.' in this language-game would include moving to the location where the cat is supposed to be lying, and assessing empirically whether it is indeed lying on the mat.

words like 'I promise to do X', or reporting which one may do through the act of uttering certain sentences). Admittedly, in *Philosophical Investigations*, there is a passage where Wittgenstein does refer to 'lying' and 'reporting' – deeds one may do by uttering certain linguistic expressions – as language-games (Wittgenstein, 1995, p. 21). However, this passage is inconsistent with the rest of Wittgenstein's argument. In other sections of the same text, 'lying' and 'reporting' are clearly indicated as happenings which occur within language-games, rather than being identified as language-games themselves (see Bienert, 1996, pp. 41-111). In fact, the same type of speech act may occur in different language-games. For instance, the act of reporting may occur in language-games where physical objects are described, as well as in language-games where one's mental state is described in psycho-analysis. Similarly, the act of lying, which takes place by merely uttering certain words, may take place in many of the language-games to which Wittgenstein refers. Hence, lying and reporting cannot be considered as language-games, but acts that one may perform through the tokening or uttering of certain linguistic expressions while being engaged in certain language-games.

A single context can include more than one language-game. For example, a conversation at a bar, where Peter bluffs history, John mimics Napoleon, and Mary evaluates aesthetically a picture of the French Emperor, engages these individuals in a number of language-games, like the language-games where historical events are discussed, that where one playfully imitates someone else, and the language-game where paintings are appraised.

Many language-games include linguistic expressions that are associated with time. These might be linguistic expressions that express what we expect regarding the future, or refer to anticipated events (see Wittgenstein, 1995, p. 129). Some linguistic expressions might, on the other hand, be used to refer to events one remembers (Wittgenstein, 1995, pp. 305-306). Others are used to refer to events that an individual believes to have occurred in the past, but which they have not directly experienced.

According to Wittgenstein, language-games contain 'rules' and a particular type of assumption. These features are fundamental to the existence of language-games. They also play an important part in the analysis of McTaggart's argument and in the defence of default presentism later in the thesis. The following section examines these features in further detail.

2.3.i. Hinge assumptions and rules

The previous sections referred to three presuppositions Wittgenstein made in his early philosophy (2.1), which he rejected later on (2.2). Wittgenstein came to believe that linguistic

expressions ought to be considered in the activities where they are normally employed, which activities he called language-games (2.3). This section highlights two important features of language-games. The final sections of the chapter (2.4) refer to Wittgenstein's characterisation of meaning in his later philosophy.

A language-game is an activity where linguistic expressions are used. In *On Certainty*, Wittgenstein refers to a type of sentence, what he calls 'hinge propositions', which represents a certain type of assumption made by participants to language-games (Wittgenstein, 1979 p.52). Hinge propositions are sentences whose content is, in particular language-games, exempted from doubt due to the role these sentences play these language-games (see Misak, 2016, pp. 272-280). In the language-game/s in question they would be accepted with a degree of certainty that is not accorded to other sentences used in the same language-game/s (Pritchard, 2001, p. 4). This thesis calls the assumptions represented by these sentences 'hinge assumptions'. Without these assumptions, the language-game in question would not exist or would collapse. They form; 'the basis of action and … thought' (Wittgenstein, 1979, p. 29) in a language-games and would constitute its ultimate 'foundation' (see Wittgenstein, 1979, pp. 51-52).

Consider language-games where sentences such as 'The cat is on the mat.', are used to determine the physical location of a feline. If Mary is able to truthfully use this sentence to inform Peter that there is a cat in the next room, both participants must make a number of assumptions. For instance, they both must assume that: Peter will see the same cat which Mary saw earlier when he walks into the room; if the cat has not moved, it has not ceased to exist; cats and mats are not constantly replaced by identical copies; and cats can actually lie on mats and not only appear to be doing so (see Wittgenstein, 1995, p. 38; Wittgenstein, 1979, pp. 44-73). Some of these hinge assumptions refer to aspects of the world that are related to time, such as the hinge assumption that the same object will persist throughout time.

Hinge assumptions are relevant to the discussion of McTaggart's argument and default presentism in the chapters that follow. Another feature of language-games that Wittgenstein notes is that in determinate language-games or contexts, linguistic expressions can be used either correctly or incorrectly. The correct or incorrect use of a linguistic expression is determined by what Wittgenstein calls 'rules'.[1] The rules in question are not the grammatical rules of a particular natural language, such as the rule that the adjective comes before the noun in English. (e.g. 'There

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[1] This is indeed another reason why Wittgenstein compares the activities where linguistic expressions are used to games: the fact that both games and language-games contain rules.

is a red ball.' is grammatically correct, while 'There is a ball red.' is incorrect.) They are not guidelines for collaborative action either. Instead, what Wittgenstein calls 'rules' are; 'standards of correctness [and] guides to conduct …for employing [linguistic] expressions' (Hacker, 1986, p. 183) within a particular language-game, and in determinate situations and circumstances, which participants to the language-game implicitly accept (see Wittgenstein, 1995, p. 201; McGinn, 1997, p. 106). This can be illustrated through the following example.

Consider the sentence 'The cat is on the mat', which is frequently used in language-games like the one where we describe things around us in our everyday environs. Participants to the language-game may use the sentence to identify the presence of a feline in an exact location in their surroundings. These language users implicitly accept that the use of this linguistic expression is correct if a cat and mat are related to one another in a certain way, as suggested by the sentence. They concur that the correct use of this sentence in the language-game is established by checking to see if the cat and mat to which the particular token or utterance refers ,are in fact related in a certain way. They would agree that the correct use of the sentence is not verified in other ways like looking in the eyes of the speaker or consulting a manual. Participants to this language-game also accept that the correct response to the original sentence is through the use of sentences like 'Yes, there is a cat on the mat.' or 'No the cat is no longer in the room.'. Sentences like 'Cats have nine lives.' or 'The cat in question is cuddly' would not be an acceptable response. One would be tokening or uttering a sentence where it should not be tokened or uttered.[1]

There is enormous diversity in the rules governing the use of linguistic expressions in different language-games, and one cannot postulate some rule or set of rules common to all language-games (Grayling, 1988, p. 78). The rules of the language-game where objects in space are described are different from those of the language-game where we discuss what is good or evil. A token of 'There is a car in the garage.' produced to describe objects in a particular space abides by the rules of the former language-game. An utterance of 'It is immoral to have cars in the garage.', which is used to make a moral consideration, abides by the rules of the second language-game. The two sentences abide by different rules even if tokens or utterances of the two are produced simultaneously in the same context. (E.g. in a bar discussion where John informs Mary about what is contained in a particular place through the first sentence, and Mary makes a moral observation regarding such state of affairs through the second.)

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[1] Sentences like 'The cat in question is cuddly.' may be used in the same language-game in other circumstances, for example in a context where two people are discussing a particular cat.

The rules that govern the use of a linguistic expression in a language-game also typically establish 'criteria', i.e. conditions that render the use of a particular linguistic expression in a language-game and in determinate circumstances correct (Wittgenstein, 1995, 82-83). Even the criteria for correct use of linguistic expressions are enormously diverse. For instance, the rules that govern the use of 'The cat is on the mat.' in the previously mentioned language-game determine that the criterion which makes the use of the sentence within this language-game and in a particular context correct, is the presence of a cat on a mat in some space determinable from the context. (In contrast, the rules for the correct use of 'The cat is not on the mat.' in the same language-game set the absence of a cat on a mat in the same space as the criterion for correct use.) On the other hand, the rules of the language-game where the words 'slab' and 'beam' are used as a request to an assistant during a repair, determine that the criterion making the use of the linguistic expression 'beam' correct is the existence of some situation where a plank is required to support stone or concrete.

The rules governing the use of linguistic expressions within a language-game are not codified, or mustered consciously. They originate; 'in a complex, piecemeal and undirected fashion' (Priest, 2006, p. 200). Knowledge of these rules is, generally, implicitly exhibited in the behaviour of those who engage in the language-game, and participants to a language-game may indeed be unable to articulate the rules by which they actually abide. Learning how to use a linguistic expression according to the rules of a language-game is primarily a matter of acquiring; 'a technique, entering a custom, leaning a practice' (Misak, 2016, p. 250). People are; 'trained' into following such rules (Wittgenstein, 1995, p.82) rather than explicitly instructed to act according to particular codes or patterns. They learn through a process that requires; 'regularity, repetition or recurring ways of acting' (Malcolm, 1995, p. 145).

The rules that govern the use of linguistic expressions are also not determined by features of the world, by objects (or their characteristics) existing in the world, or by the world itself (Baker and Hacker, 1998, p. 20). Obviously, there are linguistic expressions that are used in some language-games on the presumption that their correct use enables an accurate description of the world, or of things in or aspects of the world as these would exist in the latter. For instance, the rules governing the use of 'There is a cat on a mat.' in the previous example rely on certain presuppositions concerning the characteristics of entities like cats and mats, and properties of the natural world such as gravity. Yet, the rules that govern the use of any linguistic expression are ultimately grounded in our habit of considering certain ways of using determinate linguistic expressions within a language-game and in certain situations correct or mistaken (see Misak, 2016,

p. 258). If participants to a language-game in various contexts accept that, in a determine situation one needs to use a particular type of linguistic expression, or to act in certain ways, behaving in these ways or using the particular type of linguistic expression in a certain way, would amount to abiding by the rules of the language-game (Baker and Hacker, 1988, p. 141).

The rules governing the use of linguistic expressions in a language-game are therefore ultimately; 'valid because [they are] embodied in our practices' (Priest, 2006, p. 203). These practices occur in what Wittgenstein calls 'forms of life'. Wittgenstein does not define 'forms of life', nor does he clearly elaborate on this notion. However, his reference to 'forms of life' indicates that language-games are intimately involved in the majority of daily interactions, from the quite mundane to the highly elaborate. They are the ultimate ground for language-games themselves (Wittgenstein, 1995, 226 & 241). The rules that govern the use of linguistic expressions within a language-game are also relevant to the discussion of McTaggart's argument and to the defense of default presentism.

2.4. No theory of conventional meaning

The previous sections account for Wittgenstein's rejection of the three presumptions that he made during his earlier phase. As a reminder, these three presumptions state that:

a) the meaning of a linguistic expression –what one grasps in understanding the linguistic expression - is something independent of the linguistic expression and its use, which philosophical analysis can unearth. The linguistic expression conveys this meaning in natural language.

b) linguistic expressions have conventional meanings that are common in all contexts of use.

c) the meaning of a linguistic expression is not fully determined by facts that relate to its use. It can be characterized independently of the uses of the linguistic expression.

In his work, Wittgenstein adopts a descriptive approach, focusing on the activities where linguistic expressions are used, which he refers to as language-games (2.3). The previous section focused on two features of language-games: their hinge assumptions and the rules that govern the use of linguistic expressions (2.3.1). These will feature prominently in the discussion of McTaggart's argument, and in the defence of default presentism later in the thesis.

This section addresses Wittgenstein's thoughts on the meaning of linguistic expressions. Due to Wittgenstein's rejection of the first two presuppositions, it is reasonable to assume that

there is little scope to discuss Wittgenstein's thoughts about meaning. However, this is not the case.

As mentioned in sections 2.2 and 2.3, there is no issue for Wittgenstein of what meaning a linguistic expression has independently of its uses in the language-games where it is normally employed. In fact, Wittgenstein never provided a concrete theory of meaning, a theory that either states what is it that we grasp on understanding linguistic expressions of various types, or which systematically; 'assigns definite semantic contents' (Speaks, 2004) to linguistic expressions. However, his contributions to philosophy do include positive views on the meaning of linguistic expressions, and the following section addresses these inclusions in his work.

In *Philosophical Investigations*, Wittgenstein famously claims that for; 'a large class of cases … the meaning of a word is its use' (Wittgenstein, 1995, p. 20). Elsewhere he adds that this applies to other linguistic expressions like sentences (Wittgenstein, 1965, p. 65). These passages seem not merely to suggest that in order to; 'understand the meaning of a [particular linguistic] expression we must look to its use' (Misak, 2016, 253), a view which is uncontentious. They suggest the stronger view that the use of a word or linguistic expression is its very meaning: i.e. what is apprehended or grasped in understanding tokens or utterances of a word or of any other linguistic expression. This could be formulated as the following:

The use of linguistic expression x is ¢. Therefore ¢ is the meaning of x.

Many philosophers do consider this to be Wittgenstein's own theory of meaning (see Hintikka & Hintikka, 1989; Hunnings, 1998). However, characterising Wittgenstein's thoughts as such would be overly simplistic and unsatisfactory. First, by referring to 'most cases', the passage indicates that there are a few exceptions, such as words and other possible linguistic expressions, whose meaning is not their use. In claiming that the meaning of a linguistic expression is 'its use', Wittgenstein would then be expounding what is the 'norm' in relation to most, though by no means all, linguistic expressions (Baker and Hacker, 1998, p. 119).

In addition, Wittgenstein's characterisation of meaning cannot be formulated as 'the use of linguistic expression x is ¢, therefore ¢ is the meaning of x', since a linguistic expression may have more than one use. Consider the sentence 'John is the King of England.'. This sentence may be used to indicate who is the current British monarch, to create the British monarch during a coronation, as well as in numerous other ways. The question arises: which use would be the meaning of the sentence? Further still, a linguistic expression can be used without knowing what the linguistic expression fully means. For instance, one may know that the word 'pariah' may be

used in relation to certain nation states to bear a negative connotation, even without knowing exactly what 'pariah' means.

Moreover, Wittgenstein's rather simple characterisation of 'meaning as use' is quite vague and ambiguous. Using a linguistic expression is, fundamentally, tokening or uttering the linguistic expression in question: i.e. a physical event occurring in a particular context. The suggestion that such an event (the very production of a token or utterance) is what is apprehended when understanding a linguistic expression is crude, incomplete, and incorrect.[1] For starters, each physical tokening or uttering of a linguistic expression is a distinctive act. John's tokening of 'The cat is on the mat.', Peter's repetition of the same sentence elsewhere, and Jane's utterance of 'Napoleon is the first Emperor of France.' are three different and distinct physical events occurring in different contexts. If the word 'use' in 'meaning is use' is understood as referring to the physical act of producing a token or utterance of a linguistic expression, the meaning apprehended on each occasion would be different, since the three acts are physically unique. Yet, it is clear that the first two tokens or utterances fundamentally share the same meaning. Though John's and Peter's tokens are not merely physically but also semantically distinct - the two are distinct events, and refer to different cats and mats - there is an important extent to which they share a common meaning: that there is some meaning which is common to the two tokens. Jane's utterance on the other hand, does not share any meaning with the other two tokens. This similarity in meaning between the first two tokens cannot be explained by the phrase 'meaning as use', if 'use' refers to the physical acts of tokening the sentence, since the production of the two tokens constitute two different physical events.

What Wittgenstein would mean by 'the meaning of a linguistic expression x is its use' is that, generally, linguistic expressions have the meaning they have in view of how language users use the linguistic expression in question: that facts about the type of act (rather than each individual act) involved in tokening or uttering a linguistic expression or other, generally suffice to fully determine whatever it is one grasps in understanding tokens or utterances of the linguistic expression in question.[2] Facts about the type of act involved in uttering or tokening 'The cat is on the mat.' in whatever context the sentence is tokened or uttered – rather than each individual act

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[1] Obviously, facts about this event are necessary to understand the particular meaning of the token or utterance in question. For instance, it is necessary to understand facts about the physical context where the token or utterance 'The cat is on the mat.' is produced to understand which cat is being referenced. Yet, these facts help one grasp what is meant by the token or utterance. They cannot themselves be what is grasped or understood.

[2] Wittgenstein then, would be propounding a theory in metasemantics as this is understood by Kaplan (1989) and Stalnaker (1997), namely; 'the study of what makes it the case that [linguistic] expressions have the linguistic meanings that they do have' (Silk, 2016, p66)

of tokening or uttering the sentence - would determine whatever it is one grasps in understanding this sentence. Similarly, facts about the type of act involved in uttering or tokening 'Napoleon was the First Emperor of France.' are what determines what is grasped or understood whenever one understands this sentence.

The facts that the determine the meaning of a linguistic expression would include what language users seek to do when tokening or uttering the linguistic expression. (For instance, the whether they use the linguistic expression in question to inform, describe, warn, pray, curse, name, or indicate a relation.) They would also include the standard intentions relating to the use of a linguistic expression, what normally justifies the production of an utterance or token of the linguistic expression in question in certain contexts or circumstances, what type behavior is associated to the uttering or tokening of the linguistic expression, and what commitments (if any) one undertakes in uttering or tokening the linguistic expression. The facts that establish the meaning of a linguistic expression also include whatever is taken to establish the correct 'use' of various linguistic expressions; what counts as a proper response to the uttering or tokening of different linguistic expression in determinate contexts; and other elements relating to the use of the linguistic expression in concrete situations.

Regarding the example given in the previous page, the facts about the type of act performed by both John and Peter – as well as by other language users who token or utter 'The cat is on the mat.' – determine whatever it is that one grasps in understanding the sentence, are various. They include the fact that 'The cat is on the mat.' is used to describe the whereabouts of a particular type of creature and its relation to a particular cloth, that the truth of a token or utterance of the sentence is established in a certain manner, that the use of the sentence normally calls for certain determinate responses, and other circumstances relating to the use of the sentence.

This characterisation of Wittgenstein's claim that the meaning of a linguistic expression is its use however, needs further fine-tuning.

2.4.i. Meaning determined by typical use

After referring to the rejection by Wittgenstein of three theses he previously upheld (2.1 – 2.2), and to the descriptive methods he later adopts - concentrating on the activities where linguistic expressions are employed, which he calls language-games (2.3) - the previous section accounted for Wittgenstein's claim that the meaning of a linguistic expression is its use (Wittgentein, 1995, p.20). This thesis maintains that what Wittgenstein means is that facts relating to the use of a linguistic expression generally suffice to determine the meaning the linguistic expression has.

However, this claim that facts about the use of a linguistic expression generally suffice to determine the meaning the linguistic expression has, requires some refining.

A linguistic expression may have different uses in different language-games. Consider the sentence 'John is the King of England.'. In one language-game, the sentence would be used to indicate or describe who is the current British monarch. In another language-game, it would be used to create the monarch. It may have additional uses in other language-games. Each of these uses corresponds with different typical intents one has for using the sentence, and to different typical behaviour and responses. In each case, the use of the sentence is governed by specific rules (Grayling, 1988, p. 77). As such, a new question arises if we accept the claim that facts concerning the use of a linguistic expression generally suffice to determine its meaning: which of these uses determines the meaning of 'John is the King of England.'?

As sated earlier (2.3), during his later philosophical phase, Wittgenstein focuses on the concrete use of linguistic expressions within language-games. The facts that determine the meaning of a linguistic expression are facts that concern the use of linguistic expressions within a language-game (see Grayling, 1988, p. 84). Following on from this, the meaning of a linguistic expression is relative to the language-game, where it is used. If a particular linguistic expression has different and divergent uses in various language-games, the linguistic expression will have different meanings relative to its employments within these different language-games (Wittgenstein, 1995, pp. 1-8). In this sense, the sentence 'John is the King of England.' has one use (crowning the British monarch) and one meaning in a language-game. It has a different use (announcing the King of England) and a distinct meaning in another. In both cases, it is only the facts that concern the use of the sentence that determine the meaning it has relative to each language-game. Thus, Wittgenstein's claim that meaning of a linguistic expression is its use can be formulated as:

facts about the use of linguistic expression x in language game Ω determine the meaning x has in Ω.

If x has an additional use in other language-games, say in language-game $\tilde{\varphi}$, its meaning relative to its use in this language-game will be characterized as:

facts about the use of linguistic expression x in language game $\tilde{\varphi}$ determine the meaning x has in $\tilde{\varphi}$.

To characterise the meaning of x, one would have to describe and map its various uses: the rules that govern these uses; the typical behaviour accompanying these various uses; and other

features that relate to the type of act constituted by tokening or uttering *x* in the various language-games where it is employed.[1]

The various uses of *x* would be related to each other by family resemblances. This explains why it is the same linguistic expression that is used in different language-games and not two homonymous linguistic expressions. Consider again the sentence 'John is the King of England.' when it is used to indicate the current British monarch in one language-game, and when it is used to create the new British monarch in another. The two uses are quite different. Yet, there is a family resemblance between the two. In both cases, John is characterised as a 'British monarch' and is therefore considered to have a number of responsibilities and powers due to his position in society. Moreoever, in both language-games one is correct in using the sentence, if there are protocols that determine that John is the King of England. These comparable features would explain why it is the same sentence, and not two homonymous ones, that is being tokened or uttered in both language-games.[2]

Specifying that the meaning of a linguistic expression is relative to its use in a language-game, and claiming that facts about such use determine the meaning that the linguistic expression would have within the language-games in question, would further explain why different tokens or utterances of 'The cat is the mat.' produced at different times but within the same language-game – as with the example mentioned in the previous section - would share common meaning. Even if Peter is referring to Pixie and John is referring to Tibbles, the two tokens of 'The Cat is on the mat.' are used in the same language-game to describe the position of a certain feline in relation to a certain rug. The same hinge assumptions, and rules governing the use of the sentence are in place in the two instances. The same typical behaviour that followa the tokening or uttering of the sentence, would occur in both cases.

Even the characterisation of Wittgenstein's claim that the meaning of a linguistic expression is its use as:

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[1] The mapping of various uses of linguistic expression in different language-games is philosophically relevant, even in regards to issues that do not directly concern meaning. If there is a need to investigate a concept in any philosophical field, one should interrogate the use of the linguistic expressions which express the concept in question in the different language-games where these linguistic expressions are normally employed.

[2] It is different with two tokens or utterances of 'Cells renew themselves.', where one token or utterance is used to indicate a feature of the basic component living beings in one language-game, and the other serves to indicate an activity of a set of humans forming a branch of some wider group in another language-game. Here we would have two homonymous sentences. The use of the two tokens or utterances would be totally unrelated (see Wittgenstein, 1988, p. 13).

facts about the use of linguistic expression x in language game Ω, determine the meaning x has in Ω.

and:

facts about the use of linguistic expression x in language game $\tilde{\tilde{\omega}}$, determines the meaning x has in $\tilde{\tilde{\omega}}$.

is not totally satisfactory. This is because a linguistic expression may have more than one use in the same language-game.

For instance, consider two separate contexts where people are engaged in the same language-game in a conversation about historical events. In one context, Peter utters 'Napoleon was the First Emperor of France.' to convey historical information and also to bluff and impress others about his knowledge. In another context, Mary utters 'Napoleon was the First Emperor of France.' to provide historical information and to help a friend who is finding it difficult to answer an exam question. The two utterances occur in the same language-game. Yet, they are used differently. One utterance is produced to bluff or impress, and the other to assist a friend. Indeed, within a language-game, the various uses of a linguistic expression are potentially infinite. The question that arises is: which 'use' would determine the meaning of the linguistic expression in the language-game? Given the potentially infinite number of uses of a linguistic expression, it is somewhat difficult to provide an answer to this question. It would therefore seem nonsensical to suggest that facts about the use of a linguistic expression within a language-game determine the meaning of the linguistic expression in question. Wittgenstein's characterisation of 'meaning as use' would appear to be tenuous and impractical.

However, this is not necessarily the case if one qualifies further how the meaning of a linguistic expression in a language-game is determined by its use in such an activity. The same linguistic expression may have several uses within the same language-game. Yet, some of these uses are more typical than others, while others are less frequent, a fact noted by Wittgenstein (Wittgenstein, 1995, p. 56). For instance, in the previous language-game, the sentence 'Napoleon is the First Emperor of France.' is typically used to describe, assert, or inform, or to ratify or refute some assertion regarding Napoleon. These uses relate to typical intentions of participants in this language-game, such as informing a fellow participant, answering a question, confirming an assertion about French history, and other characteristic objectives. Such typical uses are related to the very existence of the language-game. People typically engage in this language-game to inform

others about a particular historical character, to talk about political leaders, to discuss the history of nations and continents, and for other similar purposes.

Apart from these common uses, 'Napoleon was the First Emperor of France.' may also be used within this language-game for less common reasons, such as pretending to be knowledgeable about French history, trying to impress, or assisting a friend during an exam. These are subsidiary and ancillary uses of the sentence compared to the typical ones mentioned in the previous paragraph. Indeed, the sentence 'Napoleon was the First Emperor of France.' has such additional uses in the language-game due to its typical employments. Peter manages to bluff and impress about his knowledge of history through his utterance of 'Napoleon was the Frist Emperor of France.', because he uses the sentence to convey information about a historical character — a typical use of the sentence in this language-game. Likewise, Mary manages to help her friend during an exam by using her token to inform them about Napoleon and his former position, which is a typical use of the sentence in this language-game.

It is therefore facts about the typical uses of a linguistic expression within a language-game that determine the meaning that the linguistic expression has within the language-game, and not any use whatsoever to which the linguistic expression may be put in the language-game. This is what should be understood by Wittgenstein's claim that the meaning of a linguistic expression is its use. Schematically:

facts about the typical use(s) of linguistic expression x in language game Ω, determine the meaning x has in Ω.

Since the same linguistic expression may be used in more than one language-game, its typical use in these other language-games would determine the meaning that it would have in these language-games. Thus:

facts about the typical use of linguistic expression x in language game $\tilde{\varphi}$ determine the meaning x has in $\tilde{\varphi}$.

The same holds for any other uses x might have in other language-games

2.5 Conclusion

The later Wittgenstein rejected three theses which he previously upheld in his philosophical work. These theses claimed that:

a) the meaning of linguistic expressions – what one grasps or apprehends in understanding the linguistic expression - is something non-linguistic (i.e. independent of the linguistic expression and its uses), which the linguistic expression communicates in natural language. This meaning can be unearthed and characterized distinctly from the use of linguistic expressions

b) Linguistic expressions have conventional meanings which are constant, irrespective of their use.

c) The meaning of linguistic expressions is not fully determined by facts about their use. These meanings can be characterized independently of such uses.

In his later philosophy, Wittgenstein holds that the meaning of a linguistic expression cannot be characterised independently from the contexts and activities were these linguistic expressions are used. The activities in question are compared to games. Hence the notion of language-games. Within language-games, linguistic expressions may be used correctly or incorrectly given determinate rules. Language-games also contain a number of hinge assumptions on which these activities rest. The meaning of a linguistic expression is relative to the language-games where it is used and is determined by the facts which relate to its typical use in the language-games in question.

The above insights are pertinent to the forthcoming discussion of McTaggart's argument and to the defense of the version of presentism presented in the thesis. In particular, they are pertinent regarding:

a) the claim that sentences like 'Napoleon was The First Emperor of France.' express abstract propositions that contain past entities like Napoleon himself. This thesis argues that abstract propositions are untenable in light of Wittgenstein's theory of meaning.

b) the claim that sentence 'Napoleon was the First Emperor of France.' is ontologically committed to the existence of Napoleon. The thesis argues that the manner in which the sentence is typically employed does not make the sentence committed to such entity.

c) the claim that the truth of the sentence 'Napoleon was the First Emperor of France.' requires the existence of Napoleon at all. In light of Wittgenstein's account of truth - which focuses on the use of the linguistic expression 'is true' - this thesis rejects the idea.

Chapter 3 – McTaggart's Argument from a Wittgensteinian perspective.

3 Introduction

This chapter considers McTaggart's argument against time from a later Wittgensteinian perspective. In his early and later philosophies, Wittgenstein dismisses most metaphysical theories and arguments, describing them as 'senseless'. As such, this chapter examines the reasons for Wittgenstein's aversion to metaphysics in his later philosophy. These reasons include:

a) the claim that metaphysical debates tend to begin with questions which it does not make sense to ask (3.1).

b) the claim that metaphysical arguments tend to use linguistic expressions in a manner that is inconsistent with how they are typically used in language-games (3.1.i).

These reasons are discussed in 3.1-3.1.i. While it seems that McTaggart's argument cannot be dismissed as nonsensical for either reason, this chapter argues that the manner in which sentences like 'The Battle of Waterloo is past.' are interpreted in the argument is actually inconsistent with how these sentences are typically employed (3.2). It also claims that McTaggart misinterprets sentences like 'The Battle of Waterloo is past.' due to one of his key presuppositions, the eternalist presupposition.

Section 3.3 argues that the typical use of sentences like 'The Battle of Waterloo is past.', as well as that of other sentences that can correctly and simultaneously be used in the same language-games, is committed to a contrary presupposition. It is committed to a variant of presentism, what this thesis refers to as 'default presentism'. Section 3.4 then, argues that presentism in general, and default presentism in particular, successfully counter McTaggart's argument.

However, while it does effectively challenge McTaggart's argument, presentism itself faces many issues. By referring to a later Wittgensteinian perspective, the remaining chapters defend default presentism against objections that relate to the content, ontological commitments, and truth of sentences like 'Napoleon was the First Emperor of France.'.

3.1. Senseless metaphysical questions

Wittgenstein considers many of the problems and debates in philosophy to arise from philosophers' misunderstanding or misusing the linguistic expressions employed in these debates.

Regarding metaphysics then, Wittgenstein considers the entire field of metaphysics to be nonsensical for two reasons. First, debates in metaphysics tend to begin with questions which – he claims – it does not make sense to ask (Wittgenstein, 1965, p. 27). Some examples of these kind of questions include: 'Do numbers exist?', 'Is time real?', 'What is time?', or 'What is the nature of the future?' (Wittgenstein, 1965, p. 109). Questions from contemporary metaphysics that would be considered as senseless from a later Wittgensteinian perspective are questions like 'Do objects have temporal parts?', 'Is there a mereological whole made up of a chair and a table?' or 'Do objects like this table exist, or are there only metaphysical simples arranged table-wise?'. Wittgenstein claims that these questions tend to lead philosophers astray, prompting them to think that there are puzzles or enigmas related to time, numbers or objects. Instead, it is the questions themselves that are misplaced (Wittgenstein, 1965, p. 18).

Questions like 'Is time real?', 'Do numbers exist?', and 'Do tables exist or are there only simples arranged table-wise? are questions that it does not make sense to ask, and do normally occur, in the language-games where the terms these questions contain are normally employed (Pears,1985, p. 106). The language-games in question would not contain the resources to allow one to provide an answer to these questions. In essence, it is because philosophers fail to attend to the typical use of the linguistic expressions included within these questions — how 'time', 'number', 'object', 'parts' and 'chair' are actually used within language-games – that they raise these queries (Wittgenstein, 1965, p. 65).

For instance, Wittgenstein refers to the questions Augustine poses in *The Confessions* in relation to time; questions such as 'What is time?' and 'How is it possible that one should measure time?' (Augustine, 2001, pp. 269-286). Augustine asked these questions after contemplating the possibility of measuring time and events which are no longer or not yet part of the world (Wittgenstein, 1965, p. 26). Wittgenstein claims that these questions posed by Augustine were misleading, and that he asked them because of his inability to attend to the typical uses of terms like 'past,' 'present', 'future' and 'measure' (Wittgenstein, 1965, p. 26). Consider the term 'measure'. If Augustine had examined the typical use of this term more closely, he would have noticed that when the term is used to measure spatial distance, this use requires the length/distance being measured to be part of objects that are part of the world (Wittgenstein, 1965, p. 26). However, when 'measure' is used in relation to time and events, it is used in a manner that is related to, but is also markedly different from, the typical use it has when it is employed to measure spatial distances. So much that when the term 'measure' is used in relation to events, it does not require what is being 'measured' to be part of the world (Wittgenstein, 1965, p. 26). If Augustine had kept

to these concrete uses of the term 'measure', he would not have posed and sought answers to questions like 'What is time?' or 'How is it possible that one can measure an event that no longer or does not yet exist?'

A typical example of a senseless question in contemporary metaphysics is 'Do objects like tables exist or are there only metaphysical simples arranged table-wise?', a problem which is frequently considered by philosophers engaged in debates in mereology. The question is not one that would be typically posed in language-games where the term 'table' features to refer to the piece of furniture where an individual would sit. Consider the language-game where a person describes objects around them in space. Given how 'table' is typically employed in this language-game, the existence of objects like tables and chairs cannot be questioned. The hinge assumptions on which this language-game rests and the rules that govern the use of linguistic expressions in the language-game presuppose that the world contains entities like tables. They also require these entities to have distinct features like not going out of existence when they are not perceived, or not being constantly replaced by identical objects (Wittgenstein, 1979, p. 29). Sensible questions to ask in this language-game are questions like 'Is the table made of wood or iron?' and 'Is there a chair at the table in the next room?'. In relation to such questions, there are rules and criteria that permit one to give an answer to these queries. (Possible answers could be 'Yes, the table is made up of wood.' or 'No there is no chair.'.) On the other hand, the typical use of 'table' in this language-game, the rules governing the use of this word and the hinge-assumptions on which the language-game rests, do not permit one to provide an answer to: 'Do objects like tables exist or are there only simples arranged table-wise?' Essentially, the question is out of place in the language-game, and there is no scope to pose it as such. (Due to the fact the question is misdirected in the first place, there is no scope to use sentences like: 'Yes, there are tables over and above metaphysical simples.' as a response.)

The question: 'Do objects like tables exist or are there only metaphysical simples arranged table-wise?' would also be out of place in other language-games where the term 'table' is used to indicate this piece of furniture. Consider the field of microphysics. Microphysicists are continually engaged in a language-game which considers the possibility that objects like tables, are fabricated of fundamental elements, namely microparticles. Yet, the question 'Do objects like tables exist or are there only metaphysical simples arranged table-wise?' would be out of place even in this language-game. It would never be addressed. Even this language-game lacks rules that determine how to answer the question. Questions that in the language-game where people do microphysics

make sense would include 'How do microparticles link together to form larger objects, like tables?' and 'What forces cause them to be linked together?'.

Since the question 'Do objects like tables exist, or are there only metaphysical simples arranged table-wise?' would be out of place in any language-game where the word 'table' is commonly employed, the later Wittgenstein would dismiss it as a senseless pseudo-question (Hacker, 1986, p. 206).[1] The questions typically raised by scholars of metaphysics are not the only reasons why Wittgenstein criticizes the debates generated in this field of research. Another reason concerns how certain linguistic expressions are used throughout metaphysical debates.

3.1.i. Senseless use of linguistic expressions

The second reason why Wittgenstein dismisses many debates in metaphysics is because philosophers who engage in these debates tend to use linguistic-expressions in ways that are different from, and inconsistent with, the typical uses these linguistic expressions have in language-games. According to his theory of meaning (chapter 2), the typical use of a linguistic expression determines its meaning relative to the language-games where it is normally employed. The use of a linguistic expression in a manner that is inconsistent with its typical use(s) may appear to be meaningful, but in fact is quite the opposite. To expose this non-sense Wittgenstein suggests asking whether linguistic expressions as they are used in metaphysical arguments are ever used in the same way in the language-games in which they are usually employed (Wittgenstein, 1995, p. 48). If the answer is negative, then the linguistic expression is being used in a nonsensical manner.

A prime example of this situation is when philosophers in metaphysics appropriate words with determinate meanings in a language-game or other, and combine them to produce sentences that are out of place in language-games where the words are normally employed. The sentence so produced will not be ungrammatical in terms of the grammar of a specific natural language. Yet, it would have no typical use in any language-game where the words it contains are normally employed. The sentence would fail to be meaningful in spite of its appearance. Consider a sentence from an existing debate in metaphysics, the sentence 'There is a mereological whole made up of a table and a chair.', which features within debates in mereology. Participants to this debate who uphold universalism use this sentence to refer to what they take to be a gerrymandered entity having chair and table as proper parts, and consider it to be true. On the other hand, nihilists, who believe that there are only mereological simples that do not compose other objects, would consider

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[1] But cannot 'table' be used in a language-game with other rules and hinge assumptions? This issue is discussed in section 3.1.ii.

this sentence to be false. Despite their different views, both universalists and nihilists would consider this sentence to be meaningful. However, from a later Wittgensteinian perspective, the sentence 'There is a mereological whole made up of a table and a chair.' is nonsensical, as opposed to being true or false.

From a later Wittgensteinian perspective, the sentence 'There is a mereological whole made up of a table and a chair.' is considered as similar to a sentence like 'Caesar is a prime number.'. The latter is not senseless because it is an ungrammatical string of words, like 'is Peter France of.', or because it is reads as gibberish, like 'Charubba babburaba.'. A characteristic is being predicated of a subject in a way that conforms to the grammar of the English language.[1] Yet despite conforming to the rules of this natural language, when 'Caesar' and 'is a prime number' are combined together in the sentence, this fails to be meaningful. The category mistake that the sentence commits - a characteristic being predicated of a subject that cannot have that type of characteristic predicated of it - is due to it transgressing the rules that establish which sequences of words are; 'licensed and which excluded' (Hacker, 2003, p. 13) in the language-games where 'Caesar' and 'is a prime number' are normally employed. For instance, the linguistic expression 'is a prime number' is characteristically used as a predicate, which is only applicable to numbers in sentences such as 'Five is a prime number.' or 'All multiples of two are prime numbers.'. These sentences have a typical use in language-games like the one where people do mathematics, and are therefore meaningful though possibly false. Likewise, when 'Caesar' is used as the name of a specific entity in a language-game, it cannot be coupled with the predicate 'being a prime number'. (Predicates like 'was a general' or 'was Spanish' may be used in relation to this subject.) Since the sentence 'Caesar is a prime number.' has no typical use in any language-game where the words 'Caesar' and 'prime number' are normally employed, the sentence itself is meaningless (see Anscombe, 1981, p. 115).

The words 'whole', 'table' and 'chair', which feature in the sentence 'There is a mereological whole made up of a table and a chair.', have various uses in a number of language-games. In these language-games, 'table' is typically used to indicate a particular entity (the type of entity one can sit at) and 'chair' is used to indicate another entity (the type of entity one can sit on). In the same language-games, 'whole' has three typical uses. The first is to indicate an entire entity, as in 'The whole chair and the whole table were painted red.' (The sentence indicates that both objects have been entirely painted in one particular colour.) The word 'whole' may also indicate an entire part of an entity, as in 'The whole left side of the chair is painted blue.' Finally, 'whole' may be used to

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[1] Examples Wittgenstein provides are sentences like; 'I feel in my hand that water is three feet under the ground.' (Wittgenstein, 1965, p. 9).

designate a group of entities, as in 'The whole set of furniture in my place consists of a chair and a table.'. However, neither in these sentences, nor in other sentences one may concoct in the same language-games, can the word 'whole' be used to suggest that 'chair' and 'table' form a further object.[1]

Indeed, the typical use of these three linguistic expressions in a language-game, the rules which govern their use, and the hinge assumptions on which these language-games rest, exclude such combinations as 'There is a mereological whole made up of table and a chair.'. For instance, the typical use of 'chair' and 'table' in the language-games where they are typically employed, and some of the hinge-assumptions on which these language-games rest, presume that when an entity like a table or a chair comes in or goes out of existence, it is this object alone that starts/ceases to exist. No other entity, apart from the table or chair, would come into being or go out of existence.[2] Other hinge-assumptions of language-games like the one where people use these sentences in everyday life, also presume the distinctness of the two objects (see Wittgenstein, 1979).

Consequently, in the sentence 'There is a mereological whole made up of table and chair', the words 'chair', 'table' and 'whole' are being used in a way that is contrary to the use they have in the language-games whether the terms are used together (Hacker, 2003, p. 19). The sentence 'There is a mereological whole made up of chair and table' has no typical use in any of these language-games. Since it is the typical use of a linguistic expression in a language-game that determines its meaning, and the sentence has no typical use in any language-game, it is resolutely nonsensical despite appearing to be meaningful.[3]

Similarly, Wittgenstein suggests that many debates in metaphysics involve the use of linguistic expressions that is inconsistent with how they are typically employed in the language-games where they typically feature. (Even though, in other cases, this may not be so blatant as in

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[1] A similar sentence 'There is a whole made up of chair and table.' may perhaps be used in some language-games to indicate an entire object, for instance, in the language-game where art is discussed. This sentence may be used to indicate an artefact composed of chair and table, if some artist intends chair and table to compose some *object d'art*. Even in the language-game where we describe things around us, 'There is a whole made up of chair and table.' may be used, as a joke or for some other kind of reason, if one nails and/or glues together table and chair and forms one messy object. Yet, none of these uses would indicate the gerrymandered entity to which philosophers in mereology refer when they use 'There is a mereological whole made up of chair and table.'. Through the latter sentence, an ordinary chair and table that need not touch/be nailed to each other, and are not parts of an artistic exhibit, are considered as possible proper parts of an entity.

[2] Assuming the table and chair are not part of an artistic exhibit, as in the previous footnote.

[3] This is different from the case of a sentence that has never been tokened or uttered, but which is meaningful because it has a typical use in a language-game. Suppose # stands for a number that has previously never been considered or thought. The sentence '# is a prime number' is meaningful, despite never being tokened or uttered. It is meaningful because it has a typical use in these language-games where words expressing numbers and predicates like 'being a prime number' are typically employed.

the example considered here.). Before examining McTaggart's argument from a later Wittgensteinian perspective, this thesis considers a possible objection to Wittgenstein's claim that sentences, such as 'There is a mereological whole made up of a table and a chair.', are in fact meaningless.

3.1.ii. A digression

Wittgenstein rejects most metaphysical arguments because they tend to originate from nonsensical questions (3.1) and, generally, use linguistic expressions in a manner that is inconsistent with how they are typically used in the language-games where they are usually employed (3.1.i). Before demonstrating how the later Wittgensteinian approach counteracts McTaggart's argument (3.2), this thesis considers a possible objection to Wittgenstein's claim that philosophers in metaphysics use linguistic expressions in a manner that is inconsistent with their typical use, which essentially renders their arguments senseless. This section examines the two reasons that may be forwarded to sustain this objection to Wittgenstein's claim, using the sentence 'There is a mereological whole made up of a table and a chair.' as an example.

The first reason for objecting to Wittgenstein's criticism is that metaphysics, as a field of research, is an activity where philosophers use linguistic expressions for numerous purposes (to establish: the ontological commitments of sentences; what types of entity exist or do not exist; whether words such as 'red' refer to abstract properties; whether objects are proper parts of other entities; and so on). Judging by the continued engagement in this field of research, it would appear that there is in fact a language-game of metaphysics. Within this language-game, the sentence 'There is a mereological whole made up of a table and a chair.' already has a typical use. Due to Wittgenstein's claim that the typical use of a linguistic expression in a language-game determines its meaning, this would imply that the aforementioned sentence is meaningful. Regarding the second reason, assume that the sentence 'There is a mereological whole made up of a table and chair.' is meaningless because it has no use in any of the language-games where the words 'whole', 'table' and 'chair' are employed. This however does not exclude its future use in a language-game where these three words are employed. A language-game may come into being where language users speak of mereological wholes comprised of chairs and tables as proper parts. This typical use would determine that the sentence will be meaningful in this future language-game. The fact that no such language-game exists is a purely contingent circumstance. The argument that the sentence 'There is a mereological whole made up of a table and a chair' is meaningless because it has no typical use in any language-game is therefore weak and circumstantial.

Overall, this objection to Wittgenstein's argument is ill-founded. Consider the first reason, and suppose there is indeed a metaphysics language-game. In this language-game, philosophers engaged in mereological debates claim to understand the words 'table' and 'chair' according to how they are used in non-metaphysical contexts: i.e. how 'table' and 'chair' are used in the language-games in which language users are engaged in non-philosophical contexts, like the language-game where we describe things around us in everyday life. They suppose that the terms 'whole', 'table' and 'chair' as used in metaphysical debates, have the same meaning and express the same concepts as in non-philosophical contexts. The sentence 'There is a mereological whole made up of a table and chair.' would therefore be suggesting that the entities normally included under the concepts 'table' and 'chair' in everyday life form an additional gerrymandered entity (see Effingham, 2013, pp. 152-167).

Now, as stated in the previous section, the typical use of 'table' and 'chair' in language-games where they are used to refer to things around us, allows that objects falling under the concepts these terms express have proper parts, while categorically excluding that they themselves can be proper parts of another entity (see 3.1.i.). If arguments in this supposed metaphysics language-game presume to use the words 'chair', and 'table' with the same meaning these terms have in everyday contexts – as indeed philosophers engaged in metaphysics claim to do - then the sentence 'There is a mereological whole made up of chair and a table.' should be dismissed as meaningless.[1]

The same is also true for any future language-games where these terms might be used. If the two terms will be used to express the same concepts as in their present iteration, the sentence 'There is a mereological whole made up of a chair and a table.' will still be meaningless. For this sentence to have a typical use in a future language-game, the typical use of 'whole', and/or 'table', and/or 'chair' must be fundamentally different from the one they currently have in the language-games where they are employed. This will bring about a change in their meaning (Wittgenstein, 1979, p. 10; Hacker, 1986, p. 189; Hacker, 2001, p. 362). This is similar to the sentence 'Peter is a prime number.' acquiring a typical use in a language-game because 'Peter', 'is a prime number' or both, have radically altered their meaning. (This would be due to a fundamental change in their typical use.) One or the two terms would come to express different concepts. Owing to this

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[1] Wittgenstein makes this point in one of his publications. He writes; 'what is the … use of this expression in ordinary language? … If you now use it contrary to its original use….[it] is as if you were to play draughts with chess pieces and … think that your game…kept something of the spirt of chess' (Wittgenstein, 1967, p. 80).

fundamental change, the combination of subject and predicate in the sentence will become permissible.

However, this takes the sting out of current debates in mereology. In these debates, it is the possibility of entities we currently classify as falling under the concepts expressed by the terms 'chair' and 'table' being proper parts of another entity that is taken into consideration. It is not the possibility of (some of) these terms acquiring a radically different, use, and hence the sentence becoming meaningful in virtue of this change, that is considered. So long as 'table', and/or 'chair', and/or 'whole' has/have the typical use and meaning they currently have, the sentence 'There is a mereological whole made up of chair and table.' is to be considered as nonsensical — despite its apparent meaning (see Wittgenstein, 1998a, p.73).[1]

Before considering McTaggart's argument from a later Wittgensteinian perspective, it is worth noting that Wittgenstein's rejection of debates in metaphysics is dissimilar to the position taken by contemporary Neo-Carnapians like Eli Hirsch. Hirsch would claim that debates relating to sentences like 'There is a mereological whole made up of a table and a chair.' are pseudo-debates where participants are talking past each other. According to Hirsch, these participants are using different 'languages': they are engaged in different ways of using and understanding words, quantifiers and other linguistic expressions, in line with different and contrasting theories and axioms (Hirsch, 2005, p. 82). For example, a universalist would understand the words 'object', 'thing', 'whole' and 'parts' differently from how a detractor of universalism would understand these terms. Therefore, the sentence 'There is a mereological whole made up by this table and a chair.' would have a variety of meanings and truth-values, depending on how different individual understand the terms making it up (Hirsch, 2005, p. 77). If an individual were to understand 'There is a mereological whole made up of a table and chair.' in the same way as a universalist does, then

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[1] The case of 'There is a semantic whole made up of table and chair.' being meaningless as long as the typical use of 'whole', 'table' and 'chair' remains unaltered, is different from the case of sentences like 'I wrote a letter with my milk bottle.'. While this sentence is not normally tokened or uttered given the current properties of bottles and writing pads, it may have a use given some technological advance. It is conceivable to envisage a possible world where a milk bottle can be used to write a letter, marking the surface of some screen with an object like a bottle, a producing a letter through this. Or else there could be worlds where writing implements are attached to milk bottles themselves. In a language-game like the one where we refer to objects around us then, the sentence 'I wrote a letter with my milk bottle.' is false (given current technology) rather than nonsensical.

After all, even in the actual world, the sentence 'I took a photograph with my mobile phone.' was meaningful but false until a few years ago (before the invention of mobile phones with cameras). Today, tokens or utterances of this sentence are true. The features associated with mobile phones have changed, but these changes were not radical enough to bring about an alteration to concepts that the words 'photograph' and 'mobile phone' express. Their current meaning has not changed from their previous iterations, when tokens or utterances of 'I took a photograph through my mobile phone.' were false.

On the other hand, a world where 'There is a mereological whole made up of table and chair.' has a typical use, would be a world where the concepts expressed by one or more of 'whole', 'table' and 'chair' have changed, due to some radical change in the typical use of these terms.

this sentence would be true. If on the other hand, one understands these terms in the way in which someone who subscribes to ordinary language ontology understands them, the sentence will be false. The later Wittgensteinian approach on the other hand, does not deny that the universalist and their opponent are engaging each other. However, it would hold that if by 'table', 'chair' and 'object' the two parties to the debate are meaning what we normally mean by these terms in the language-games where they are normally used, the sentence whose truth is being contested is in fact meaningless.

3.2. McTaggart's argument

The previous two sections addressed the reasons for the later Wittgenstein's rejection of most arguments in metaphysics. These tend to start-off from questions that it does not make sense to ask in the language-games where the linguistic expressions contained in these arguments are usually employed (3.1). They also tend to employ linguistic expressions in a manner that is inconsistent with how these are typically used (3.1.i). The following sections demonstrates how McTaggart's argument can be refuted from a later Wittgensteinian perspective (3.2-3.4). The success of this criticism to McTaggat's argument depends on accepting Wittgenstein's theory of meaning as use as show-cased in the previous chapter. If one accepts this theory McTaggart's conclusion would not follow.

McTaggart's argument does not begin from questions that it does not make sense to ask, and seems attentive to how linguistic expressions are used in the contexts where they are normally employed. While *The Nature of Existence* addresses questions such as 'What is meant by reality or being?' (McTaggart, 1921, p. 1), which would probably be dismissed as non-sensical by the Later Wittgenstein, the argument against time does not begin with such questions. It does not begin with questions like 'What is time?' or 'Does time exist?'. Both in this book and in the 1908 paper 'The Unreality of Time', McTaggart starts with how; 'time appears to us' (McTaggart, 1908, p. 458), with how we ordinarily; 'conceive and talk about time'. (Oaklander, 1994, p. 157)[1] Apparently McTaggart's argument cannot be dismissed as non-sense on grounds that it employs linguistic

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[1] McTaggart uses words as 'observe' (McTaggart, 1927, p. 11), 'appear' (McTaggart, 1927, p. 9) and 'perceive' (McTaggart, 1927, p27) in relation to events that are in the past, present and future, and earlier/later than each other. By this he cannot mean that we observe past and future events (or even many present ones) in the same way as one observes her surroundings in space. What McTaggart means is that we think and talk of events and times in these determinate ways, as being in the past, present and future, and earlier/later than each other.

expressions in ways that are inconsistent with how these are typically used in the language-games where they are normally employed either. The argument includes sentences we use in everyday life like: 'The Battle of Waterloo is earlier than WWII.', 'The Battle of Waterloo is past.', 'The Battle of Waterloo is present.' and 'The Battle of Waterloo is future.'. The argument does not - unlike what is the case for instance in contemporary debates on mereology mentioned earlier – contain sentences like 'There is a mereological whole made up of table and a chair.' that are out of place in the language-games where the terms making up the sentence are employed. McTaggart notes certain features relating to these sentences we use in everyday contexts, and bases his conclusion on these features. For instance, he notes that the truth of a sentence like 'The Battle of Waterloo is future.' implies the falsity of 'The Battle of Waterloo is past.', yet, tokens or utterances of the two sentences are true if time is real. As a result, McTaggart concludes that the reality of time is contradictory.

It seems then, that *prima facie* McTaggart's argument against time cannot be dismissed as nonsensical. However, this section argues that on closer examination McTaggart uses certain sentences that feature in his argument in a manner that is inconsistent with how these are used in the language-games where they are usually employed.

Admittedly, the argument begins with ordinary sentences like 'The Battle of Waterloo is past.' and 'The Battle of Waterloo is earlier than World War II.'. However, the manner in which McTaggart interprets sentences like 'The Battle of Waterloo is past.' is inconsistent with how these sentences are commonly used in the language-games where they are employed. The contradiction generated by McTaggart's argument is attributable to this inconsistency.

McTaggart maintains that in sentences like 'The Battle of Waterloo is past.' a characteristic is being predicated of an event. This would imply that if the sentence is true, the event is part of the world, and would instantiate the characteristic in question. The sentence would be similar to sentences like 'The ball is red.' wherein a characteristic is being predicated of an entity presumed to be part of the world. McTaggart's interpretation of the sentence 'The Battle of Waterloo is past.' is influenced by the 'eternalist presupposition' imbued in the first premise of his argument. This premise proposes that times and events are arranged in two series: in the past, present and future (the A-series), and earlier or later than other each other (the B-series). The premise clearly

presupposes an; 'event ontology' (Lane Craig, 2000, p. 169), whereby each of these past, present and future events or times would be as real as any other event or times.[1]

The eternalist presupposition would imply that the only change there can be if time is real, would be a change in events: from being future, to being present, to being past. (There is no absolute becoming; i.e. no events, objects or entities that come into existence or cease being part of the world (See Broad, 1923, p. 317; Lane Craig, 2000, p. 177). If the world contains all past, present and future events, the reality of time and change requires that in sentences like 'The Battle of Waterloo is future.' the terms 'past', 'present' and 'future' are interpreted as predicates standing for incompatible characteristics that are instantiated or shed by events. This would account for the only change there can be (See Horwich, 2012, p. 11).

The Later Wittgensteinian approach would deny that such sentences as 'The Battle of Waterloo is past.' are akin to sentences like 'The ball is red.', wherein a characteristic is predicated of the entity in the subject-place. It would reject the claim that the sentence 'The Battle of Waterloo is past.' predicates an A-series characteristic of an event that is part of the world. This is because it denies the eternalist presupposition made in McTaggart's argument. The later Wittgensteinian approach would instead claim that the typical use of sentences like 'The Battle of Waterloo is past.', as well as of certain other sentences that are used in the same language-game(s) and context(s), presupposes a version of presentism. This version of presentism is elaborated in the following section. (3.3)

3.3. Default presentism

Wittgenstein considers most arguments in metaphysics to be nonsensical because of the type of question that instigate the initial debate and of how linguistic expressions are normally used in metaphysical arguments (3.1). Section 3.2 claimed that McTaggart's argument should be dismissed for the second reason. Due to the eternalist presupposition he makes in his argument, McTaggart misinterprets sentences like 'The Battle of Waterloo is past.', mistakenly suggesting that they predicate a characteristic of an event which would be part of the world. This section sustains this charge, and argues that the typical use of these sentences in the language-games where they are employed, is based on a different and conflicting presupposition.

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[1] This also follows from McTaggart's characterisation of facts. As stated earlier McTaggart conceives of facts in terms of entities instantiating relations and/or characteristics. A- and B-facts would be constituted by events instantiating characteristics like 'past', 'present' and 'future', and relations like 'earlier/later-than' or 'simultaneous with'. The events in question would have to be part of the world, in order to instantiate these characteristics and relations.

Wittgenstein never explicitly endorsed a particular notion of time, even though, several publication entries suggest that he favoured a presentist perspective.[1] As stated in the Introduction, Wittgenstein believes that philosophy should be concerned with linguistic analysis. In his later philosophy this involves primarily describing the typical use of linguistic expressions in the language-games where these are employed. It should illustrate what purposes participants to a language-game usually have when using the linguistic expressions one is considering, how these linguistic expressions are employed correctly and what is considered as incorrect use, how (in the case of descriptive sentences) their truth is verified, as well as the hinge assumptions on which rest the language-games where the linguistic expression one is considering are used.

Considerations about language however, would also weigh in on what one should believe regarding the world, its contents, and its various aspects, including its temporal aspect. When describing the typical use of some linguistic expression in certain language-games, one would note that this use presupposes that the world contains certain; 'kind[s] of object' (Wittgenstein, 1995, p. 116), or that the world and aspects of the world (including its temporal aspect) exist in definite ways (See Voltolini, 2010, p. 152). Consider the sentences 'The cat is on the mat.' and 'Anything that exists is made up of atoms.', which are used in certain language-games, like the one where people describe things around them in everyday life, and the one where people do physics. The typical use of the first sentence presupposes that the world contains entities that are classified as cats and mats, that it contains a particular cat and a particular mat, and that these are in fact related in a definite way. The typical use of the second sentence presupposes that the world contains atoms and that these structure everything that is present within this world. It is impossible to articulate the typical use of these sentences without indicating what this use presupposes regarding the kind of objects the world would contain, or how this use requires certain aspects of the world to be.

The version of presentism which follows from adopting a Later Wittgensteinian approach will be called 'default presentism'. It is a version of presentism sustained by the use of certain linguistic expressions, rather than an elaborate metaphysical theory, as the versions of presentism upheld by philosophers like William Lane-Craig, Arthur Prior, Craig Bourne, Treton Merricks and some works by Ross Cameron. The typical use of sentences like 'The Battle of Waterloo is past.' which feature in McTaggart's characterisation of the A-series, as well as of certain other sentences that one can use concomitantly in the same language-games as the former, presupposes a variant

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[1] For instance, Wittgenstein claims that the belief that events are spread across time in a manner that is akin to how entities may be spread about in space (as with the A and B series, or in other eternalist characterisations of time), is a misleading source of; 'philosophic puzzlement' (Wittgenstein, 1965, pp. 26-27).

of presentism. Presentism is standardly described as the view which holds that the only entities and/or events contained in the world are those existing at the present time (Lewis, 2004, p. 1). According to this view, dinosaurs and a future granddaughter would not be part of the world. The same is also true for the Battle of Waterloo or World War III.

First, consider a sentence that refers to a past event, 'The Battle of Waterloo is past.'. In the language-games where it is normally employed, this sentence is typically used to refer to an event presumed to have been part of the world, but which is no longer part of it at the time when the sentence is tokened or uttered. For instance, in contexts where they use 'The Battle of Waterloo is past.', participants to these language-games characteristically also employ sentences like 'The Battle of Waterloo no longer is.' - a sentence which clearly states that the event is no longer part of the world. In any context where it is possible to correctly use one sentence, it is also possible to use the other correctly. Even the ways of ascertaining whether one is correct in tokening or uttering 'The Battle of Waterloo is past.' do not presuppose that the event in question is part of the world. The procedures in question require the existence of evidence traceable to the event, but not the event itself. The sentence 'The Battle of Waterloo is past.' then, is used in relation to an event presumed to have been part of the world, but not to be part of it when the sentence is uttered or tokened. Its typical use is to indicate events that were once part of the world; not to indicate characteristics these events would instantiate.

This is also true for the typical use of sentences about future events, for example 'The 2022 election is future.'. This sentence in normally used in language-games like the one where people discuss politics, and the one where they schedule future events. Whenever this sentence is correctly tokened or uttered in this language-game, it is also possible to correctly token or utter sentences like 'The 2022 election is yet to be.'. (There is no context that permits the use of one sentence and not the other.) The sentence 'The 2022 election is yet to be.' clearly asserts that the world does not contain the event in question at the time when it is tokened or uttered.[1] Even the manner in which the truth of sentences like 'The 2022 election is future.' is verified does not stipulate processes and procedures that require the world to contain the event. (It stipulates indicators showing that the event is going to happen and be part of the world.) It presupposes that this event has yet to come into existence; not characteristics that events would instantiate.

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[1] The presence of the linguistic expression 'yet to be' in the sentence is a clear indication of this. This linguistic expression ('yet to be') is not used to refer to something that exists in another location in the same world but which one still has to experience. It refers to something that is presumed not to be part of the world, and which is yet to come into existence.

Consider now a different sentence that refers to a present event, like 'The Syrian war is being fought at present.'. This sentence can be used in several language-games, such as the one speakers engage in when discussing current affairs, or the one where people discuss the history/ies of different nations. The typical use of this sentence presupposes that the event the sentence is about is part of the world. Within these language-games, it is not possible to correctly utter or token this sentence while simultaneously uttering or tokening sentences like 'The world does not contain a war in Syria.'. Instead, 'The Syrian war is being fought at present.' can be correctly tokened or uttered simultaneously with the negation of such sentences (e.g. sentences like: 'It is not the case that the world does not contain a war in Syria.'). Even the method for verifying the truth of 'The War in Syria is being fought at present.' includes procedures that require the world to contain the event (live reporting on the event, correspondents in Syria reporting on events as they happen, etc.).

Therefore, the typical use of sentences that McTaggart adopts to characterise his A-series in the language-games where they are normally employed, as well as of other sentences one may (not) simultaneously utter or token in the same language-games and contexts, presupposes that the world contains only present events or entities.[1] It presupposes - by default - that the world is a presentist world. Past and future events or entities would be events or entities that are no longer or not yet part of the world.[2]

The following section argues that default presentism effectively counteracts McTaggart's conclusion and references some of the difficulties relating to presentism that appear further on in the thesis.

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[1] The typical use of other sentences that feature in McTaggart's argument - sentences like 'The Battle of Waterloo is later than the Battle of Hastings.' that are used to characterise the B-series - is consistent with a presentist picture, However, their typical use does not presuppose presentism. Interpreting this sentence along presentist lines would imply that the world first contained an event then, after the first event went out of existence, it contained another event.

[2] One might argue that this is not a strong enough case for presentism. In the future, a language-game might exist where terms like 'past' and 'future' are used are used in relation to events and entities that will be presumed to be part of the world. In this language-game, it will no longer be possible to use 'The 2020 election is future.' and 'The 2020 election is yet to be.' simultaneously. However, this is a loaded objection. If 'future' and 'past' will start to be used in this way in this language-game, i.e in ways that presume that the event in relation to which these terms are used is part of the world, their typical use will vary considerably from the current one. The concepts expressed by 'past' and 'future' would be different from those that they express currently. Likewise, sentences like 'The Battle of Waterloo is past.' would have a different meaning from the one they currently have. The possibility that 'past' and 'future' will start to be typically used in ways that differ radically from how they are currently used, cannot act as a defense for McTaggart's argument. This is because McTaggart uses 'past', 'present' and 'future', and the sentences in which these feature, with the meaning they had in his day. This is the same meaning they have now.

3.4. Presentism and McTaggart's argument

The first part of the chapter provided reasons why the later Wittgenstein considered many debates in metaphysics to be nonsense (3.1 & 3.2.). These reasons include the claim that metaphysical arguments tend to use linguistic expressions in ways that are inconsistent with their typical use in language-games (3.1.i). Section 3.2 contends that McTaggart misinterpreted some sentences that feature in his argument, like 'The Battle of Waterloo is past.', claiming that these sentences predicate an A-series characteristic of the event in the subject-place. This however is not the typical use they have in language-games where they are normally employed. McTaggart is led astray by the eternalist presupposition embedded within the first premise of his argument. The later Wittgensteinian approach discussed in this thesis should reject this presupposition. It contends that the typical use of sentences like 'The Battle of Waterloo is past.' or 'The War in Syria is present' presupposes default presentism (3.3).

Default presentism – as indeed most versions of presentism - asserts that the world does not contain past and future events or entities, only what exists in the present. If the world contains only events or entities that exist at present, sentences like 'The Battle of Waterloo is past.' or 'The Battle of Waterloo is future.' cannot be interpreted as predicating an A-series of the event in the subject-place. The use of these sentences would only indicate that the event in question is no longer or not yet part of the world at the time when the sentence is tokened or uttered. Since sentences like 'The Battle of Waterloo is past' and 'The Battle of Waterloo is future' would not predicate A-series characteristics of events, but merely indicate which events are no longer or not yet part of the world, no event would instantiate incompatible characteristics. The truth of different tokens or utterances of these sentences, produced at different times, would not generate a contradiction (see Lane Craig, 1998, pp. 125-126). Thus, default presentism avoids McTaggart's paradox.[1]

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[1] The fact that presentism in general poses a challenge to McTaggart's argument, has been acknowledged even by many philosophers who are not presentists. For instance, Robin Le Poidevin reformulates McTaggart's paradox in terms of facts. According to this reformulation of McTaggart's argument, if time is real, the world would contain all tensed facts that obtain at all times. It would contain the tensed facts that obtains in the past 'Napoleon being defeated at Waterloo being future', the other tensed fact that obtains in the past 'Napoleon being defeated at Waterloo being present', and the tensed fact that obtains presently 'Napoleon being defeated at Waterloo being past'. It would contain all these facts even though they are mutually incompatible (Le Poidevin, 1991, p. 30). However, if one upholds presentism, the world would only contain facts that obtain at present (Le Poidevin, 1991, p. 33). If the writing of this sentence obtains in the present, but not the fact that Napoleon is being defeated at Waterloo, the world would contain the former fact but not the latter. Admittedly, some of the facts that obtain in the present do concern past and future events or times. It is a fact that obtains at present that Napoleon's defeat at Waterloo occurred in the past and that there will be outpost on Mars in the future. However, it is only the fact that Napoleon was defeated at Waterloo that

As a theory, default presentism also guarantees the reality for change and time. The world once contained dinosaurs and the Battle of Waterloo. It no longer contains these. At the time of writing this chapter, it contains Big Ben, Barack Obama and the war in Syria. Eventually, it will no longer contain these events and entities, but others in their place. Therefore, from a default presentist perspective, the reality of time is justified. However, there are philosophers who vehemently reject any version of presentism. The remaining chapters in this thesis consider objections levied against presentism, which are raised in relation to sentences like 'Napoleon was the First Emperor of France.', to consider whether these are fatal to default presentism. The thesis considers whether:

a)   these sentences express singular propositions about past and future objects that require the existence of said objects (Chapter 4).

b)   these sentences are ontologically committed to the existence of past entities like Napoleon (Chapter 5).

c)   the truth of these sentences requires the world to contain Napoleon (Chapter 6).

If these objections are sound, the world cannot be considered along presentist lines, regardless of any conclusions drawn in favour of default presentism that involve the typical uses of sentences like 'The Battle of Waterloo is past.' and 'The Battle of Waterloo is yet to be.'. In this light, default presentism would be considered an unsound and ineffective foundation to reject McTaggart's argument.

All three objections will be considered in relation to Wittgenstein's thoughts on language, meaning and philosophy as illustrated in Chapter 2 and the Introduction. Reference will also be made to other ideas from his work that relate to intentional states like belief and to truth. The thesis will argue that each objection can be rebutted if a later Wittgenstenian perspective is adopted. By showcasing Wittgenstein's counterargument to each objection, this thesis will also compare the Wittgensteinian rebuttal to other presentist responses of the objections to presentism.

3.5. Conclusion

This chapter articulated Wittgenstein's rationale for considering many metaphysical debates to be nonsensical. Metaphysical arguments tend to start off from questions that it does not make sense to ask. They also tend to use linguistic expressions in ways that are incompatible with how

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obtains, not the fact that Napoleon is being defeated at Waterloo as well. The latter fact no longer obtains. This generates no contradiction.

they are typically used in the language-games where the linguistic expressions in question as usually employed. This chapter also claimed that McTaggart mistakenly holds that sentences like 'The Battle of Waterloo is past.' predicate an A-series characteristics of an event that would be part of the wrold. In this regard, he was misled by the eternalist presupposition embedded in the first premise of the argument.

However, if the typical use of the sentences that feature in McTaggart's argument is taken into consideration, it will be apparent that this use is committed to a presupposition which is contrary to the eternalist presupposition. In fact, it presupposes a version of presentism, default presentism. Sentences like 'The Battle of Waterloo is past.' would not be used to predicate A-series characteristics of events that are part of the world. Instead, they merely indicate which events were, are, and will be part of the world. This guarantees the reality of time and avoids McTaggart's contradiction.

Chapter 4 – Singular Propositions

4 Introduction

This chapter focuses on criticism to presentism that refers to abstract propositions. Abstract propositions would be entities that exist outside space to which humans may relate in various ways. Specifically, it considers on a type of abstract proposition, singular propositions, which according to philosophers like Bertrand Russell (1903), Jeffery King (2013), and Mark Richard (1990), would have as constituents the entity/ies the proposition is about (together with properties and relations). Sentences like 'Napoleon was the First Emperor of France.' would express singular propositions. Philosophers like G.W. Fitch (1994), Ted Sider (1999) and Michael Rea (2003) argue that the existence of such propositions is incompatible with presentism. If this is the case, presentism – including default presentism - would be untenable, and cannot be used to counteract McTaggart's argument, as was claimed in chapter 3. In short, this chapter:

a)   presents this argument against presentism schematically (4.1).

b)   references two responses from Lane Craig and Thomas Crisp, who deny that singular propositions contain the entities they are about (4.2 & 4.2.i).

c)   details the later Wittgensteinian response to this critique of presentism – a response which rejects the existence of abstract propositions. The chapter will present the most common arguments for the existence of abstract propositions in philosophical literature: arguments that refer to intentional states like belief (4.3) and to the meaning of certain sentences (4.3.i). It argues that from a later-Wittgensteinian perspective the existence of such abstract entities is not justified (4.4 – 4.5.i).

The Wittgensteinian arguments against abstract propositions were not originated by Wittgenstein himself. However, they derive from his thoughts on meaning, as well as from entries in his later work about certain intentional states like belief, hope and desire. This chapter will not contest the validity of Wittgenstein's thoughts on these issues. It will only highlight and indicate how the existence of abstract propositions is not justified, given Wittgenstein's characterisation of intentional states, and his thoughts on meaning.

4.1 The argument against presentism based on singular propositions.

Abstract propositions are entities that, contrary material entities such as my dog and or the Eiffel Tower, do not have a; 'spatial location' (Merricks, 2007, p. 6, note 4), and cannot causally interact with things in the concrete world. They would be entities that:

i)   represent things, situations or states of affairs that may be part of the world. The abstract proposition <Birmingham is the Capital of the UK> represents Birmingham as the capital the of the UK.

ii)   are the bearers of modal properties such as necessity and possibility.

iii)   are the semantic contents of sentences, and/or of tokens or utterances of sentences.

iv)   are the object of various intentional states - i.e. of mental states that are; 'directed at objects or states of affairs' (Searle, 1979, p74) that might exist in the world - such as beliefs, hopes expectations and fears. These intentional states would involve a subject related to an abstract proposition.

According to some philosophers, abstract propositions would also be bearers of truth values.[1] Indeed, philosophers like Russell (1903) and Trenton Merricks (Merricks, 2015, pp. 22-24) claim that propositions are the ultimate truth-bearers: i.e. what is ultimately true or false. They are not true or false in virtue of something else which is true/false. Beliefs and sentences expressing these propositions on the other hand, are true or false in virtue of expressing true or false propositions. Someone's belief that Birmingham is the capital of the UK and the sentence 'Birmingham is the capital of the UK.' are false in virtue of involving or expressing the proposition <Birmingham is the capital of the UK> which bears the truth-value 'false'.

Some abstract propositions are singular propositions, i.e. propositions which are directly about a particular individual, and not about an individual in virtue of the individual falling under a description, or fulfilling a particular condition. These propositions would be about the same

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[1] However, not all proponents of abstract propositions think that these are bearers of truth-values. See King (2007) and Soames (2010).

individual in all possible worlds. The proposition <The foremost spy in World War I was a woman> is about Mata Hari in our world, but may be about someone else in other possible worlds. Therefore, it is not a singular proposition. The proposition <Mata Hari spied for Germany> on the other hand, is about Mata Hari, and about her alone. It is about the same individual in any possible world. It is therefore a singular proposition.

Many proponents of abstract propositions hold that these propositions have constituents.[1] With regards to singular propositions then, some philosophers argue that these propositions would be specifically about one individual in virtue of containing this individual as a constituent. The singular proposition<Mata Hari spied for Germany> would be about the same individual in any context and world because it contains Mata Hari as a constituent (see Kaplan, 1977, pp. 512-514).

Based on this understanding of singular propositions, the argument against presentism can be schematically laid out in the following manner:

Premise 1: sentences like 'Napoleon was the First Emperor of France.' express a singular proposition that is specifically about a particular entity, in this case Napoleon.

Premise 2: if a singular proposition is about x, then x is a constituent of that proposition.

Premise 3: if something is a constituent of something else, then that something must exist. If y exists, and x is a constituent of y, x also exists.

From Premises 2 and 3: singular propositions like <Napoleon was the First Emperor of France> that are about things that do not exist at present, have entities that do not exist at present as constituents. They would therefore contain non–presently existing entities.

Conclusion: given that the world contains entities that do not exist at present, presentism is false. Default presentism would be also erroneous, and should not be used to reject McTaggart's argument.

Presentist thinkers have responded with various counter-arguments. Some have denied Premise 2, arguing that singular propositions do not have the individual entities they are about as constituents. <Napoleon was the First Emperor of France> would not contain Napoleon. This is

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[1] Not all philosophers who believe that there are abstract propositions believe that these have constituents (see Merricks, 2015, pp. 191-216).

the most common response amongst presentist philosophers. Two such responses are considered in 4.2. However, the thesis argues that default presentism ought not to consider these responses to rebut the criticism considered in this chapter.

Presenstists may also deny that there are abstract propositions. The later Wittgensteinian defense of default presentism presented in the chapter is a species of the latter response. It denies the claim that sentences like 'Napoleon was the First Emperor of France.' express abstract propositions that contain the past entities like Napoleon, by rejecting the very existence of abstract propositions (4.4 – 4.5.ii).

4.2. Presenstist Responses by Crisp and Lane Craig

This chapter considers the criticism to presentism which holds that sentences like 'Napoleon was the First Emperor of France.' express a proposition that contains the past entity Napoleon as a constituent. This would imply that the species of presentism that follows from adopting a later Wittgensteinian approach, i.e. default presentism, is false and cannot be used to refute McTaggart's argument. A common response amongst presentist thinkers is to deny that a singular proposition about a particular entity has to contain the entity it is about as a constituent. In what follows two such responses - by Lane Craig and Crisp - are presented. If these responses and the account of propositions they involve are intelligible, they may be used to defend presentism, including default presentism, against the criticism being considered in this chapter.

Both Lane Craig and Crisp accept that there are singular propositions which are specifically about particular individuals. The proposition expressed by 'Napoleon was the First Emperor of France.' is specifically about a determinate individual, and about him alone, in any context and world. The proposition expressed by the sentence 'The man from Corsica was the First Emperor of France.' on the other hand, may denote various individuals in different worlds and contexts. The former would therefore express a singular proposition. The latter would not.

However, both Lane Craig and Crisp claim that the singular propositions expressed by sentences like 'Napoleon was the First Emperor of France.' cannot contain the entities they are about as constituents. Lane Craig argues that if this was the case, there would be insurmountable problems regarding:

1) singular propositions expressed by sentences like 'Donald Duck is a fictional character.'. This would require Donald Duck to be a constituent of the proposition expressed by the sentence, and to be part of the world. Donald Duck would be part

of the world even if the proposition states that he is a fictional character. This is objectionable.

2) propositions expressed by sentences like 'Prester John does not exist.' which deny the existence of an entity, and are true (Lane Craig, 2003, p. 295). Since the proposition is true, Preseter John would not be part of the world. Yet, if this singular proposition is about Prester John he would be one of its constituents. Preseter John would be part of the world. This is contradictory.

Crisp argues that if singular propositions expressed by sentences like 'Napoleon was the First Emperor of France.' were to contain the entities to which they refer as constituents, this would imply the absurd consequence that no object is contingent (Crisp, 2003, p. 233). Consider the singular proposition <Fido is Grey>. This is about Fido, and would therefore contain this dog (Crisp, 2006, p. 234). Now Fido is a contingent being. There are worlds where Fido exists and others where he does not. Consider the sentence: 'If <Fido is Grey> exists and it contains Fido, then Fido exists.'. This sentence is necessarily true. It is therefore true in all possible worlds. The sentence would express the proposition <If <Fido is Grey> exists and it contains Fido, then Fido exists>. This proposition must therefore exist in all possible world. Since the proposition <If <Fido is Grey> exists and it contains Fido, then Fido exists> contains the singular proposition <Fido is Grey>, the latter proposition must also exist in all possible worlds. Yet, <Fido is Grey> would contain Fido as a constituent. Fido would then exist in all possible worlds. But if Fido exists in all possible worlds, he will not be a contingent being but a necessary one. A consequence, which would follow is that no entity that may possibly exist is contingent. This is absurd.

As a result, both Lane Craig and Crisp:

i)   accept that there are singular propositions.

ii)   deny that the singular propositions expressed by sentences like 'Napoleon was the First Emperor of France.' contain Napoleon as a constituent.

This is consistent with presentism including default presentism. The question that both Crisp and Lane Craig would have to face however is: How could it be that in any context of use, 'Napoleon was the First Emperor of France.' expresses a singular proposition that is specifically about Napoleon and about him alone, without containing him?

Crisp does not provide an account that explains this feature of singular propositions. The arguments paraphrased above indicate that he thinks that we should not believe that the proposition expressed by 'Napoleon was the First Emperor of France.' contains Napoleon for the reasons mentioned earlier (i.e. this would imply that there are no contingent entities). Yet, he does not indicate how these propositions can be specifically about Napoleon. This is inadequate. As for Lane Craig, he adopts what he calls a 'Fregean' understanding of propositions. For Frege, the proposition expressed by sentences like 'Napoleon was the First Emperor of France.' would be specifically about one individual, not in virtue of containing the entity to which it refers. If this were the case, the singular propositions expressed by the sentences 'Augustus was the First Emperor of Rome.' and 'Octavian was the First Emperor of Rome.' would be the same, since Augustus and Octavian were the same person. (The proposition would contain this individual, and the property 'being the First Emperor of Rome'.) It would be the same proposition that one would be related to if one believes what is asserted by either sentence. This would imply that a person believing the first sentence cannot simultaneously not believe the second sentence since, the two sentences expresses the same proposition. (According to Frege one cannot simultaneously be and not be related to the same proposition by the relation 'belief'.) However, it is clearly possible to simultaneously believe the proposition expressed by 'Augustus is the First Emperor of Rome.', but not the one expressed by 'Octavian is the First Emperor of Rome.' See Frege, 1948, pp. 210 – 219). Therefore, the two sentences would not express the same proposition.

Frege claims that propositions expressed by sentences like 'Octavian was the First Emperor of Rome.' or 'Napoleon was the First Emperor of France.' contain senses: i.e. ways; 'in which one conceive[s]' (Zalta, 2019) what is denoted by a linguistic expression. These senses exist of their own accord, and may be constituents of propositions (see Fitch, 2013). As to Lane Craig, he follows Alvin Plantinga who interprets Frege's theory to hold that names; 'express properties' (Platinga, 1978, p129). More specifically, the name 'Napoleon' in the sentence 'Napoleon was the First Emperor of France.' would stand for an 'individual essence' of the former leader (aee Plantinga, 1982, p.80). Hence, the singular proposition expressed by 'Napoleon was the First Emperor of France.' contains this individual essence, rather than Napoleon.

An individual essence is a property that is; 'essentially unique' (Lane Craig, 2003, p. 395) to an entity. The entity in question can never lack this property, and it this individual alone can instantiate it (Plantinga, 1978, pp. 131-144). The individual essence will thus be a property that the individual entity in question instantiates in all worlds in which it exists (Plantinga, 1982, p.70). No other individual can instantiate this a property in any possible world. Consider the philosopher Socrates.

Socrates has essentially unique properties like 'being identical with Socrates' as well as all world-indexed properties that concern him (Plantinga, 1982, p.72). These world-indexed properties can be represented through predicates like 'being P-in-*w*', where 'P' refers to an ordinary property, and *w* indicates a particular world (Plantinga 1978, p. 132). An example of this would be the world-indexed property 'being Plato's teacher in the actual world'. Socrates and Socrates alone can instantiate this property. Moreover, he instantiates this property – this individual essence - in all the possible worlds where he exists. An entity may have more than one individual essence. For instance, Socrates instantiates, amongst others, the different individual essences 'being Plato's teacher in the actual world' and 'being Xantipphe's son in the actual world'. [1]

In everyday language an individual essence is expressed by a name or by a definite description that contains predicates expressing the property in question. A case in point of a definite description that expresses an individual essence would be 'the teacher of Plato in the actual world'. This would be a definite description that can fit only one individual entity in any possible world (Plantinga, 1978, p. 134). [2] If there is a proper name which expresses the same property, name and definition would be interchangeable '*salva propositionae*' (Plantinga, 1978, p. 134). Suppose the name 'Socrates' expresses the individual essence that may also expressed by the description 'the teacher of Plato in the actual world.'. The sentence 'Socrates was born in Greece.' would express the same proposition as: 'The teacher of Plato in the actual world was born in Greece.'.

Now contrary to the entity Napoleon, Napoleon's individual essence can exist in all possible worlds. It exists in those worlds in which Napoleon does not exist (and where he never did or will). It also exists in those worlds where Napoleon once existed or has yet to come into being, but where he does not exist at present. This explains why in these worlds too, it is possible to have singular propositions that are specifically about Napoleon, even if Napoleon is no longer or not yet part of these worlds (Lane Craig, 2003, p. 395). Lane Craig therefore provides an account explaining how 'Napoleon was the First Emperor of France.' can express a singular proposition

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[1] Different names that denote the same person, such as 'Octavian' and 'Augustus', express different individual essences that pertain to the same individual (Plantinga, 1978, pp. 135-136). This explains why one may believe the proposition expressed by 'Octavian was the First Emperor of Rome.' but not the one expressed by 'Augustus was the First Emperor of Rome.' (**Plantinga, 1978, pp. 135-136**).

[2] Plantinga notes that most descriptions do not express individual essences. The description 'The first Emperor of France' does not express the individual essence of Napoleon, due to the fact Napoleon falls under this description in some worlds but not in others (Plantinga, 1974, p.81). However, a description of a world-indexed property such as 'The first Emperor of France in the actual world', expresses an individual essence that can be instantiated by only one individual (Plantinga, 1974, p.81).

which is about Napoleon in all contexts where it is tokened or uttered, that is consistent with presentism, including default presentism.

However, Plantinga's characterisation of propositions, which Lane Craig adopts, is not nuanced enough to play the semantic or cognitive role that propositions are usually thought to enact. Platinga's account of singular propositions is susceptible to the objections Frege raises about singular propositions that supposedly contain the entities to which they refer. Consider the name 'Plato' and the essential property: 'being referred to in English by 'Plato' in the actual world' (Plantinga, 1985, p. 350).[1] The latter is a characteristic that only one individual can instantiate in any possible world. No other entity, in any possible world, instantiates this characteristic. Suppose the name 'Plato' and the definition 'the entity referred to in English by 'Plato' in the actual world' express the same essential property. The sentences: 'The entity referred to in English as 'Plato' in the actual world was Socrates' most famous student.' and 'Plato was Socrates' most famous student.' would express the same proposition.

Consider Mary who has sound knowledge of ancient philosophy, and some definite ideas about names. Mary claims that a proper name serves to pick out a specific individual, and no other. Yet, she also contends that a proper name can have such a function only if it is or was actually assigned as a name to a particular person during the person's lifetime. Mary would know that 'Plato' became a name, and is used as a name in English. Yet, because of her knowledge of ancient philosophy, she would also know that in 300 BC Athens 'Plato' was actually a nick-name.

With this in mind, Mary might believe what is expressed by the sentence: 'The sentence: 'The entity referred to in English as 'Plato' in the actual world was Socrates' most famous student.' is true'. She might however, fail to believe what is stated by the sentence: 'The sentence: 'Plato was Socrates' most famous student.' is true.'. She might believe the first sentence but not the second, because she would contend that, though 'Plato' is a proper name, there was no Ancient philosopher who had been named 'Plato'. Mary would hold that the name cannot be used to pick out the individual who was Socrates' most famous student, because he had not been assigned this name in his lifetime. Yet, if the name 'Plato' expresses the same individual essence expressed by the definition 'being referred to (in English) by 'Plato' in the actual world', it would not be possible for Mary to believe one sentence but not the other. It would not be possible for her to believe

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[1] This is a variation of an example Plantinga himself gives involving the name "Thales'. 'Thales' would express in English the property expressed by the description; 'the entity referred to in my language English by 'Thales" (see Plantinga, 1985, p 350).

what is stated by the sentence: 'The sentence: 'The entity referred to in English as 'Plato' in the actual world was Socrates' most famous student.' is true.', but not what is stated by 'The sentence: 'Plato was Socrates' most famous student.' is true.'.

In his paper 'Reply to Diana Ackerman' Plantinga seems to address a similar problem involving an individual with no background in philosophy. This individual believes the proposition expressed by the sentence 'Mark Twain is Mark Twain.' but not the proposition expressed by 'Mark Twain is the entity referred to as 'Mark Twain' in the actual world.'. This is largely owing to the person not being familiar with the philosophical debate about actual and possible worlds. Diana Ackerman claims that this indicates that the proposition expressed by 'Mark Twain is Mark Twain.' is different from the proposition expressed by 'Mark Twain is the entity referred to as 'Mark Twain' in the actual world.' (Ackerman, 1976, pp. 409-412). Since the difference in the sentences is a difference in the term in the predicate place, the name 'Mark Twain' would not expresses the same constituent of a proposition that is expressed by the definition 'the entity referred to by 'Mark Twain' in the actual world'. Plantinga replies that this objection can be effectively countered if one admits that:

i) there are degrees to which one grasps or understands the propositions that sentences express. In an earlier work Plantinga indicated that features like the knowledge one has of a particular science or field of research, may affect the grasp one has of a proposition (see Plantinga, 1974, pp. 85 – 86). Consider the proposition <Particles are made up of quarks>. Physicists will have a firmer and deeper grasp of this proposition than lay individuals.

ii) there is a difference between asserting and/or using competently a sentence, and understanding and/or believing the proposition expressed by the sentence. It is possible to use competently sentences that expresses propositions which we do not understand (Plantinga, 1985, p. 357). Peter can use competently 'Quarks are what particles are made up of.' – in reply to someone who asks 'What are particles made up of?' – even if he does not fully understand the proposition the sentence expresses. (He may not know what a quark is.)

iii) the ability to comprehend a proposition expressed by a sentence is mediated by a person's linguistic ability. Language users may fail to recognize that one and the same proposition is expressed by different sentences because their linguistic ability

may be poor (Plantinga, 1985, p. 357). One may believe 'That unmarried male persons are by definition single.' but not 'Bachelors are by definition single.' if one does not know that in English 'bachelor' means 'unmarried male person'.

In the case of the sentences 'Mark Twain is Mark Twain.' and 'Mark Twain is the entity referred to by 'Mark Twain' in the actual world.' the individual cited in Ackerman's example fails to comprehend that the two express the same proposition, owing to their lack of familiarity with debates in modality. This explains why she does not believe both sentences.

However, Plantinga's retort to Ackerman cannot be adapted to Mary's example. Mary does not fail to understand a proposition because her English is poor, she fails to grasp the concepts expressed by words in this natural language, or is lacking in some field of research. It is largely due to historical knowledge, and to a particular understanding of how proper names function, that she believes what is asserted by 'The sentence: 'The entity referred to in English as 'Plato' in the actual world was Socrates' most famous student.' is true.', but not what is asserted by 'The sentence: 'Plato was Socrates' most famous student.' is true.'.[1] The Plantingan account of singular propositions, which Lane Craig adopts, seems unable deal with this difficulty.

On the other hand, if some propositions contain the individuals they are about, Mary believing the sentence 'The sentence: 'The entity referred to in English as 'Plato' in the actual world was Socrates' most famous student.' is true.', but not 'The sentence: 'Plato was Socrates' most famous student.' is true.' can be easily accounted for. The propositions expressed by the nested sentences: 'The entity referred to in English as 'Plato' in the actual world was Socrates' most famous student.' and 'Plato was Socrates' most famous student.', would be different types of propositions. The former contains the concepts expressed by the terms that make up the description 'The entity referred to in English as 'Plato' in the actual world'. On the other hand, 'Plato was Socrates' most famous student.' expresses a proposition that contains the individual we call 'Plato' as a constituent. Mary would believe a sentence that expresses one proposition, and fail to believe a sentence that expresses a different proposition.

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[1] Retorting that Mary fails to recognize that the two sentences express the same proposition because of a mistaken view/theory about names she upholds, is far-fetched and unacceptable. One may grant and accept that one's grasp of a proposition is a matter of degrees, and depends on one's linguistic ability, or that one may use a sentence she does not understand. Yet, it seems preposterous to hold that one's ability to grasp a proposition depends on what views one harbours about how names function.

4.3. Abstract propositions

The argument against presentism considered in this chapter maintains that there are singular propositions about specific entities which contain these entities as constituents. <Napoleon was the First Emperor of France> would have the past entity Napoleon as a constituent. In light of this, versions of presentism including default presentism would be untenable (4.1). Two arguments rejecting the notion that singular propositions contain the entities to which they refer were presented in the previous section and their limits highlighted (4.2). Proponents of presentism however, may adopt a different response. They may reject the existence of abstract propositions altogether. This is the strategy that will be pursued in the rest of the chapter in defense of default presentism.

The existence of abstract propositions has been rejected by various philosophers for numerous reasons. Some question the plausibility of holding that the world contains abstract propositions and that humans can be related to them through relations like 'belief' or 'hope', while simultaneously denying that humans and other entities that exist in space and time can interact with abstract propositions in other ways, like being causally related to them (see Baker, 2008, pp. 15-16).[1] In addition, a problem concerns how humans can have access and be related to such abstract entities, given that these would exist outside space and time (see Loux, 2002, p. 131).

The prevalent arguments for the existence of abstract propositions on the other hand, refer to the meaning of certain sentences, to the contents of tokens or utterances of some other sentences, and to intentional states like anticipations, belief, hopes, and fears (see 4.3.i and 4.3.ii). They point to 'the explanatory role' that abstract propositions play in philosophical accounts of these intentional states, as well as in accounts outlining the meaning or content of (tokens or utterances of) certain sentences (see Loux, 2006, p. 122). According to these arguments in explaining a number of features of intentional states, and of certain sentences, we cannot not postulate abstract proposition (4.2.i – 4..2.ii). A common strategy amongst philosophers who deny the existence of abstract propositions on the contrary, is to claim that we can explain these features without postulating such abstract entities (see Sellars, 1960 and 1962; Prior 1971, a – c).

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[1] The objection is a variation of the standard nominalist concern regarding abstract entities. It questions the existence of such entities on grounds that these cannot make any difference to, causally interact with, or exert any influence upon, entities that exist in the material world (see Effingham, 2013, pp. 14-15).

The later Wittgensteinian response to the criticism to default presentism being considered in this chapter is similar to these counter-arguments.[1] In light of Wittgenstein's account of meaning as illustrated in Chapter 2, and of entries on intentional states like belief in his later work, it claims that there is no reason to postulate these abstract entities. The following two sub-sections (4.3.i – 4.3.ii) consider the main arguments brought for the existence of abstract propositions in mainstream philosophical literature (see Loux, 2006, pp. 121-130; Soames, 2015, pp. 209-210). The subsections that follow argue that, in light of Wittgenstein's thoughts on language and on intentional states like belief, there are no good reason to postulate abstract propositions (4.4 – 4.5ii). Default presentism then, need not be abandoned in light of criticism that relies on the existence of such abstract entities.

4.3.i. The argument from intentional states

Philosophers who accept that there are abstract propositions generally hold that intentional states like belief, hopes and fears have objects, and these objects are abstract propositions (see Soames, 2015, p. 209). The rest of the section provides an argument for this claim referring to belief. The same argument may be made, *mutatis mutantids*, for other intentional states.

The argument holds that Peter's belief that Birmingham is the capital of the UK has an individual (i.e. Peter) related to an abstract proposition representing Birmingham as the capital of the UK. The most common reasons presented in mainstream literature for thinking that the act of belief requires such a relation are two (see Loux, 2006, pp. 121-130; Soames, 2015, pp. 209-210). The first points to the referents of 'that' clauses in sentences which represent intentional states like 'Peter believes that Birmingham is the capital of the UK.'. The claim is made that the 'that clauses' in these sentences refer to an object that is distinct from the entity in the subject place, in this case Peter. Peter's act of belief would therefore involve a relation – the belief relation – to the object indicated by the clause 'that Birmingham is the capital of the UK'. The object of Peter's belief cannot be the state of affairs Birmingham being the capital of the UK existing in the concrete world, since in the concrete world there is no such state of affairs. The best candidate for the object of Peter's belief would be an abstract proposition that represents Birmingham as being the capital of the UK.[2]

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[1] As to Wittgenstein himself, both in his early and in his later philosophy, he rejects the notion of abstract propositions (see Kenny, 1993, p.20).
[2] Obviously, this would be supplemented by arguments indicating why this object of belief cannot be something else like possible worlds, the truth-conditions of a sentence expressing this belief, etc.

The second argument for abstract propositions from intentional states like belief follows from considerations about the difference between the act and the object of belief. The act of belief is personal. Peter's act of belief that Birmingham is the capital of the UK is Peter's, and Peter's alone. However, what Peter believes (the object of Peter's belief) – i.e. that Birmingham is the capital of the UK - may be common to other individuals (See Loux, 2002, p. 126). If Paul also believes that Birmingham is the capital of the UK, then he shares the same object of belief as Peter. Peter and Paul cannot share this object of belief if it were to exist somewhere that is inaccessible to one another, namely in each other's mind. Their act belief requires some entity that is independent of both. Once again, this cannot be the state of affairs 'Birmingham being the capital of the UK' existing in the concrete world, since no such state of affairs exists. The abstract proposition <Birmingham being the capital of the UK> on the other hand, would exist neither in the concrete world, nor in anyone's mind.[1] It would be the object of belief they would share.

4.3.ii. The argument from sentences and their tokens or utterances

The other most popular arguments for the existence of abstract propositions refer to sentences. The first argument refers to sentences that are different but have the same meaning. Consider the sentences 'The Greeks defeated the Persians.' and 'The Persians were defeated by the Greeks.'. A person who is fluent in English will understand both, and may not accept what is stated by one sentence while rejecting what is stated by the other. This indicates that their meaning is the same. The fact that the two sentences have the same meaning cannot be explained in terms of their syntactic features, which greatly differ. They subject in the two sentences is different, and one sentence is made up of seven words, while the other contains five words. Philosophers like Richard Cartwright argue that abstract propositions account for why the two sentences have the same meaning (Cartwright, 1962, pp. 81-103. See also King, 20013, pp. 764-766; Loux, 2006, p. 123;

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[1] These arguments require additional support indicating why the object of an intentional state cannot be something else like a set of possible worlds (as in Lewis, 1986, p. 53, or Stalnaker, 1976, pp. 79-80), or the truth-conditions of sentences expressing the belief in question. Various arguments are brought in this regard. Scott Soames argues that the common object of two different acts of belief cannot be the truth conditions of sentences expressing these beliefs. Otherwise the beliefs expressed by the sentence 'Octavian was the First Emperor of Rome.' and 'Augustus was the First Emperor of Rome.' would be the same, given that the two have the same truth conditions. Yet, it is clearly possible to believe what is asserted by the first sentence and not the second (Soames, 2015, p. 209). Regarding possible worlds, George Bealer claims that treating possible worlds as objects of belief involves unacceptable implications (Bealer, 1998, p. 5). Suppose the act of belief consists in a relation to a set of possible worlds - those possible worlds where a sentence expressing the belief is true. Consider the sentences '5 is an odd number or snow is white.' and '4 is an even number or snow is white.'. These are true in all possible worlds. If belief consists in a relation to the set of possible worlds where sentences expressing the beliefs are true, the object of the beliefs expressed by the two sentences would be the same (i.e. the set of all possible worlds). Yet, the beliefs in question are clearly different. One may believe what is stated by one sentence, but not what is stated by the other (See also Bealer, 1998, pp. 5 -7).

Soames, 2015, p. 209). The two would express the same abstract proposition, which is independent of either sentence.

The second argument for abstract propositions that refers to sentences is based on the fact that, with regards to certain sentences, different tokens or utterances of the same sentence may say different things and deliver differ contents. The sentence 'I am Hume.' uttered by David Hume is saying something different from 'I am Hume.' uttered by David Hemison (see Fitch, 2013). The first utterance says that Hume is Hume, and is true. The second iteration of the sentence by Hemison says that Hemison is Hume, and is false. This difference cannot be accounted for in terms of the syntactic features of the two utterances, since these are identical. If an abstract proposition is considered as being the semantic content of each utterance, then this difference may be easily explained. Hume's and Hemison's utterances would say different things and have different truth values because they express different propositions.

4.4. The Later Wittgensteinian retort: the meanings of sentences and of tokens/utterances of sentences

To reiterate, the argument against presentism considered in this chapter maintains that there are singular propositions that are specifically about particular objects in virtue of having these as constituents. The proposition <Napoleon was the First Emperor of France> would have as a constituent an entity that does not exist at present. Presentism – including default presentism - would be untenable (4.1). Presentist thinkers may deny that singular propositions contain the entities they are about. Alternatively, they may deny the existence of abstract propositions altogether. This is the course that is pursued in the rest of the chapter.

In 4.2 – 4.2.ii common arguments for the existence of abstract propositions were presented. The following sections argue that, in light of Wittgenstein's thoughts about meaning and of entries in his work about intentional states like fears, beliefs, and hopes, the existence of abstract propositions is unwarranted. Given that Wittgenstein's account of meaning was laid out in Chapter 2, the response to the arguments for abstract propositions that relate to the meaning and contents of sentences will be markedly shorter. This account is presented in this section. The sections that follow then, present the Wittgensteinian response to the arguments for abstract propositions based on intentional states (4.5), and some critical considerations on this response (4.5.i).

The first argument for the existence of abstract propositions based on sentences begins by pointing out that sentences like 'The Greeks defeated the Persians.' and 'The Persians were defeated by the Greeks.' have the same meaning, despite their different syntactical features. The argument holds that this can only be accounted for if an abstract proposition is postulated as the meaning of the two (See 4.3.ii). The Later Wittgensteinian response would deny this. In line with the theory of meaning discussed in Chapter 2, the meaning of the two sentences would be determined solely by facts that relate to the typical use they have in the language-games where they are employed. In language-games like the one where historical events are discussed, the two sentences are typically used in similar situations, for the same purposes, to do the same things. Both classify one set of humans as 'the Greeks', and another as 'the Persians'.[1] Both indicate that the set identified as the Greeks overcame the other group. The fact that, in relation to the same event the two sentences have the same typical use, explains why they have the same meaning. There is no need to postulate abstract propositions.

It could be argued that the two sentences do not really have the same typical use (and hence we need something else to explain their common meaning). One sentence has an active voice, and directly indicates a subject performing an action. The other has a passive voice, and indicates a subject being acted upon by the other. There would be contexts where it is appropriate to use one but not the other. In this situation, the use of the two sentences would not be identical.

In response, it should be noted that the difference in question is not related to typical use, but to a variation in form. As stated above, the typical use of both sentences is to identify a group of people as 'the Greeks' and another as 'the Persians', and to indicate that the former defeated the latter. Either sentence may be used to achieve this purpose. What makes the use of a sentence more appropriate than the other in a particular context is purely a matter of form. Consider the language-game where historical events are discussed, in a context where the Persian wars are being chronicled from a Greek perspective. In this context, it might be more appropriate to use 'The Greeks defeated the Persians.' rather than 'The Persians were defeated by the Greeks.' because this might have a better narrative flow. Indicating how the Persian wars proceeded from the Greek

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[1]This would account for the two sentences having a different meaning from: 'The Greeks defeated the Iranians.'. Even this sentence indicates that the first set of human beings (the Greeks) defeated the other (the Persians or the Iranians). Yet, it does not identify the second set of humans in the same way. This would explain why one may believe 'The Greeks defeated the Persians.' but not 'The Greeks defeated the Iranians.' or vice versa. In a possible world where 'Iranians' and 'Persians' are both names of groups of people but are not used to refer to the same set of people, the sentences 'The Greeks defeated the Persians.' and 'The Greeks defeated the Iranians.' would be used to refer to different events. This would not be the case with 'The Greeks defeated the Persians.' and 'The Persians were defeated by the Greeks.'

perspective however, would not be the typical use the sentence 'The Greeks defeated the Persians.' has in the language-game where historical events are discussed. For the typical purposes for which 'The Greeks defeated the Persians.' is used in language-games like the one where history is discussed – for instance indicating that a certain event involving a group classified as 'the Greeks' and another identified as 'the Persians' occurred, and that this event had a certain outcome - either sentence may be employed.

The second argument for the existence of abstract propositions considered in 4.3.ii relates to sentences, and holds that different tokens or utterances of the same sentence may say different things, deliver different contents, and have different truth values. Cases in point are utterances of 'I am Hume.' produced by Hume and Hemison. This argument for abstract propositions suggests that this difference can only be accounted for if the two utterances are held to express two different abstract propositions.

The Later Wittgensteinian retort would deny that we need to postulate abstract propositions to account for the difference in what the two utterances say and in their different truth-values. It would hold that the typical use of the indexical 'I' in sentences like 'I am Hume.', as well as features relating to the different contexts where utterances of the sentence where produced, suffice to explain why the two utterances say different things. 'I' in 'I am Hume.' is a pure indexical, referring to the speaker through the mere act of tokening or uttering the sentence (Corazza, 2004, p. 172). The use of this indexical in a sentence would point to specific; 'aspects of the context' (Perry, 1997, p. 593), in this case to the person uttering or tokening the sentence. Other contextual features then, like the fact that the speaker is named David Hemison or David Hume (something determined by protocols, registers, and other conventional means), would make it the case that an utterance of 'I am Hume.' produced by David Hume says that he (i.e. David Hume) is Hume. Such contextual features would also determine that an utterance produced by David Hemison says that he (i.e. David Hemison) is Hume. The features in question would also determine that one utterance is true and the other is false. There is no need to postulate abstract propositions to account for this difference.

4.5 The Later Wittgensteinian retort: intentional states

The later Wittgensteinian defense of default presentism rejects the argument against presentism based on singular propositions by rejecting the existence of abstract propositions altogether. This section considers a later Wittgensteinian response to the argument for the existence of abstract propositions that refers to intentional states like belief, anticipations, hopes, and fears, focusing on

the former. As stated in 4.2.i, the claim is made that to explain certain features of intentional states, abstract propositions need to be postulated. The existence of abstract propositions would explain why two or more subjects may have the same object of belief, even if the act of belief is particular to each subject. However, the Later-Wittgenstein perspective presented in this section, denies that the act of belief requires an abstract proposition as its object. It denies that 'that' clauses in sentences like 'Peter believes that Birmingham is the capital of the UK.' nominalize over an entity. It rejects the claim that Peter's belief that Birmingham is the capital of the UK should be characterised in terms of a relation between Peter and the proposition <Birmingham is the capital of the UK> (See Wittgenstein, 2004, p. 45).

Wittgenstein does not clearly lay out a theory of intentional states like beliefs, hopes, fears and expectations (Churchill, 1984, p. 159). According to several passages in his later work, he seems to be more concerned with the opinions of philosophers and psychologists who espouse a misguided approach to these intentional states (Churchill, 1984, p. 145). Yet, there are some entries from his texts which suggest that it is possible to put together a later Wittgensteinian theory of such attitudes. This section seeks to espouse this theory, focusing on belief.[1]

Wittgenstein claims that the act of belief requires; 'a kind of disposition of the believing person' (Wittgenstein, 1995, p. 191). This is indisputable or uncontroversial. It is likely that if an individual believes that there is an incidental fire in their room, she will be disposed to leave the room or to extinguish it. Someone who characterizes belief in terms of a relation between a believing subject and an abstract proposition can easily accept this. (Indeed, it might be held that someone believes – i.e. is related to - a particular abstract proposition because s/he entertains certain dispositions and not others.) However, other entries in his work suggest that Wittgenstein adopts a version of dispositionalism which characterizes intentional states like belief solely in terms of dispositions (see Wittgenstein, 1998a, pp. 9 – 10; Wittgenstein, 2004, p. 9).[2] Therefore a subject entertaining a belief should be characterized only in terms of the subject possessing a set of

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[1] The account would hold, *mutatis mutandis*, for other intentional states like anticipations, hopes and fears (see Wittgenstein, 1988, p. 148).

[2] Given the scarcity of the entries in his work however, Wittgenstein does not address questions which other philosophers address, like 'How are the dispositions to which beliefs amount to be characterized?', 'How are such dispositions related to the entities of which they are dispositions?', 'Are they to be considered as intrinsic properties of such entities?' (see Mumford, 1998 p146-162), or 'Do dispositional properties supervene upon the entities to which they belong?' (see Owens, 2014, p.73).

dispositions (Baker, 2001, p. 180). It is not necessary to postulate a relation between the subject who has these dispositions, and an abstract entity.[1]

Wittgenstein's dispositionalist characterisation of belief would belong to a tradition in philosophy that goes back at least to R. B. Braithwaite (1932-33) and Gilbert Ryle (2000), wherein it is held that to entertain a belief; 'is just to have certain dispositions' (Ryle, 2000, p. 9). These earliest theories suggested that the dispositions to which beliefs boil down are dispositions to behave in determinate ways. To entertain a belief then, would <u>merely</u> be to entertain; 'one or more particular behavioural dispositions' (Budd, 2003, p. 13). Peter believing that Birmingham is the capital of the UK equates to him possessing certain dispositions like the disposition to point to the midlands if someone asks him to indicate the capital of the UK on a map, and to answer 'Birmingham' to anyone who asks him which city is the British capital.

In recent years, philosophers who characterise beliefs solely in terms of dispositions have expanded upon the range of dispositions to include dispositions to make certain presumptions, draw particular conclusions, and to have and express certain feelings (see Owens, 2014, p110). Peter's belief that Birmingham is the capital of the UK would also include the disposition to conclude that someone is mistaken if they state that London is the British capital, to expect to find 'Birmingham' on a list of capital cities of various countries, and to feel surprised once he discovers that London is Britain's capital city. A dispositionalist account of belief can then be characterized as:

> for S to believe that P, is merely for S to be disposed to feel, infer and deduce that, and to act and behave as though, P is the case.[2]

Peter and Paul sharing the belief that Birmingham is the capital of the UK would be tantamount to Peter and Paul having similar dispositions (Baker, 1995, 21). This dispositionalist characterisation of belief however, seems inadequate in light of a number of counter-examples found in related literature. The following two sections lay out four such counter examples (4.5.i), and argue that the dispositionalist characterisation of belief can be refined in ways that address these concerns.

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[1] With regards to unspecified beliefs, these can be accounted for in the following manner. Consider the example of Mary who believes anything the Pope believes. Mary cannot specify most of these beliefs since she does not know everything the Pope believes. However, her belief in everything the Pope says can be characterised in terms of Mary's disposition to assent to and agree with whatever the Pope proclaims or claims to believe.

[2] *Mutatis mutandis*, even intentional states like fears, hopes, and expectations can be characterised in dispositionalist terms: in terms of one being disposed to feel, act or behave in determinate ways.

4.5. Limits of a dispositionalist account of belief

The characterisation of belief as:

> for S to believe that P, is merely for S to be disposed to feel, infer and deduce that, and to act and behave as though, P is the case.

seems inadequate in light of the following four counterexamples. Two are adaptations of classic objections, dating back to the 1960s and 80s. The other two are taken from contemporary literature.

i) The first example is adapted from an objection raised by George Graham (1982) against behaviourism. According to dispositionalism, entertaining a belief would be tantamount to the subject possessing a number of dispositions, including dispositions to produce specific behavior. While on stage, Lawrence Olivier is disposed to behave as though King Richard III is the current King of England. If possessing a belief amounts to possessing a number of dispositions, it would seem that Olivier believes that King Richard III is the current English King. However, this is evidently not the case. If belief is characterized in terms of a relation to a proposition on the other hand, the fact that Olivier is not related to the proposition <Richard III is the current King of England> by the relation 'belief' would explain why he lacks the belief in question despite his disposition (in certain contexts) to act as though Richard of Gloucester is the current King (see Graham, 1982, pp. 142-144).

ii) The second objection is adapted from the work of Eric Schwitzgebel (2019). Consider the situation where Mary has always believed that Stalin is a tyrant. Given the dispositional characterisation of belief, Mary's belief is to be characterized in terms of Mary possessing a number of dispositions. These include the dispositions to answer: 'We need a change of leader' or 'Stalin must go' if someone asks her opinion about political leadership. She would also have the disposition to laugh at or dismiss anyone who praises Stalin, and to object to Stalin being honoured. After being tortured though, Mary starts behaving as though Stalin is a benevolent leader. She will no longer answer: 'We need a change of leader.' to questions about political leadership, or laugh off or dismiss anyone who praises Stalin. If Mary believing that Stalin is a tyrant is characterized solely in terms of dispositions, then it appears that Mary has changed her beliefs since she altered her behaviour (see Schwitzgebel, 2019). Yet, Mary has retained her previous belief about Stalin. On the other hand, if her act of belief is characterized in terms of a relation to the proposition <Stalin is a tyrant>, the change in Mary's behavior despite the constancy of her belief can be easily

accounted for. She retains her belief, despite the change in her behavior, because she is still related to the same proposition by the relation 'belief'.

iii) The third counter-example refers to Putnam's Super-super Spartans (Putnam, 1963). Ordinary people who believe they are in pain are disposed to do react by crying, cringing, and answering 'I am in pain.' to anyone who asks them how they feel. Ordinary Peter would cry and cringe if he believes himself to be in pain. The Super-super Spartans are a group that are brought up disdaining pain and, when in pain, not expressing it through behavior like crying or crawling (Putnam, 1963, pp. 31-34). When Super-super Spartan Peter is in pain, he would believe that he is in pain. Given dispositionalism, he should be disposed cry and cringe when he is in pain. Yet when he believes that he is in pain, Super-super Spartan Peter would not cry or cringe.

When in pain, ordinary Peter and Super-super Spartan Peter would share a similar belief. Yet, if belief is tantamount to possessing a number of dispositions that include dispositions to act and behave in a certain fashion, it would seem that their beliefs regarding whether they are feeling pain vary. This however, is not the case. If on the other hand belief is accounted for in terms of the relation to an abstract proposition, the similarity of their belief may be easily accounted for.

iv) Jack Quinn-Dunn and Eric Mandelbaum (2018) claim that beliefs cannot be characterized exclusively in terms of dispositions because beliefs and dispositions have features that are markedly different. If x possessing the belief *b* amounts to x possessing a set of dispositions *d*, *b* cannot possess characteristics which *d* lacks, or vice-versa. Yet beliefs and dispositions have different features. Quinn-Dunn and Mandelbaum claim that beliefs can cause things to occur. Peter's belief that there is a fire in the room causes him to run out of the room. On the other hand, dispositions are causally inert and require activating conditions (see McLaughlin, 1995, p. 122).[1] The disposition of the glass to break will not cause the glass to break. Something else has to happen for this event to occur. Beliefs and dispositions would then have different characterisics. Given that beliefs and dispositions have different characteristics, belief cannot be characterized merely in terms of dispositions (Dunn and Mandelbaum, 2018, p. 2360).

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[1] That dispositions are causally inert is accepted by many philosophers and psychologists (see Prior, 1985). The claim however, is rejected by some like Stephen Mumford (see Mumford, 1998). For the sake of the argument being considered here, the thesis accepts Quinn-Dunn and Mandelbaum's claim that dispositions are causally inert. The conclusion that beliefs cannot be characterized in terms of dispositions would still not follow.

4.5. ii Dispositions, language-games and *ceteri paribus* conditions.

This section presents a dispositionalist response to each of the previous counter examples. Regarding the first criticism, a dispsitionalist response can be extracted from an entry in *Philosophical Investigations*, where Wittgenstein specifies that the dispositions in terms of which belief should be characterized, frequently require the use of linguistic expressions in determinate language-games (see Wittgenstein, 1995, p. 191. See also Wittgenstein, 2004, p. 12; Wittgenstein, 1998, p. 27). Peter's belief that Birmingham is the capital of the UK consists also of several dispositions that relate to; 'behaviour and word' (Wittgenstein, 1995, p.19). These include the disposition to use sentences like 'Birmingham is the capital of the UK.' and 'London is not the capital of the UK.' in a specific number of language-games, like the one where people discuss political geography, or the language-game where current-events are discussed. It would not however, include dispositions to use these sentences in any/all language-game(s).

Qualifying the dispositionalist characterisation of belief along these lines allows one to account for the Lawrence Olivier's counter example. Olivier's belief about the current British Monarch would include the disposition to use certain sentences in certain specific language-games like, the language-game where current British politics is discussed, and the one where people discuss history. When engaging in these language-games, Olivier is not disposed to act as though Richard III is the King of England. He is not disposed to answer 'Richard of Gloucester' to anyone who queries about the identity of the British Monarch. The language-games where the dispositions amounting to one's belief about the current British Monarch are manifested, <u>do not</u> include the language-game in which actors engage when on stage (Wittgenstein, 1988, p. 165). It is only in this language-game, when performing in certain theatrical productions, that Olivier is disposed to act as though Richard III is the current King of England. As a result of this, Olivier's counter example to dipositionalism can be refuted.

However, relativising the dispositions to which belief amounts to include the disposition to use certain sentences in determinate language-games and contexts but not in others - as in the above retort to the Lawrence Olivier counter-example - does not eliminate the objections to dispositionalism to which the second and third counterexamples refer. Mary used to act as though Stalin was a tyrant, and to use sentences like 'Stalin is a tyrant.' in language-games like the one where people discuss politics. Following her ordeal, she now uses 'Stalin is a great leader.' in the same language-games. Nonetheless, Mary retained her previous belief. The same holds for Super-super Spartan Peter and ordinary Peter, who behave in different ways despite both believing that

they are in pain. When engaging in language-games like the one where people express their feelings, only ordinary Peter will produce the typical behaviour associated to the use of sentences like 'I am in pain'. Unlike what is the case with the actor's counter-example, refining the dispositionalist characterisation of belief to include the use of linguistic expressions in determinate language-game but not others, does not suffice rebut these two counter-examples.

In spite of this, the Mary and Super-super Spartan counterexamples may also be explained along dispositionalist lines. Schwitzgebel argues that the dispositions to which beliefs amount would manifest themselves in determinate behavior given certain *ceteri paribus* (all else being equal) conditions. This holds for any kind of dispositions, not just those to which intentional states like belief would amount to given dispositionalism. Any disposition will manifest itself; 'only under certain circumstances' (McLaughlin, 1995, p. 122). For instance, Benzine has a disposition to ignite at a certain temperature. However, Benzine will only ignite if certain *ceteri paribus* conditions are present, such as the presence of air. Consider the case of benzene stored in an air-tight, sealed, container with no air that is heated externally. Benzine will not ignite, no matter the temperature of the container. In this case, the absence of air is an 'excuser' (see Switzgebel, 2019, p. 254): a condition that does not allow the characteristic related to the disposition benzene has to be manifested.

Equally, the behavior associated to the dispositions to which belief would amount, would also manifest itself given certain *ceteri paribus* conditions. These are conditions related to one's knowledge, and to personal characteristics concerning temperament and character. Given this, it is understandable why Mary changes her behaviour despite retaining her dispositions concerning Stalin being a tyrant. The change in their behavior is due to the *ceteri paribus* conditions, specifically to a change in Mary's knowledge. Mary retained her previous dispositions. However, she has learnt from experience that by behaving in a certain way regarding Stalin, she will invite a certain ordeal. This explains why the behavior associated with her dispositions is no longer manifested. The knowledge she gained as a result of past experience acts as an 'excuser' which prevents the behavior associated to some of the dispositions she harbours from manifesting itself. If Mary had never suffered her ordeal, or in a hypothetical scenario where she loses the knowledge of what will happen to anyone who discredits Stalin, she would still manifest the behavior related to her dispositions (see also Baker, 1995, p. 29).

Regarding the Super-super Spartan example, in *Remarks on the Philosophy of Psychology* Wittgenstein refers to the case of two different people who believe themselves or claim to be in

pain, but where only one shows expressions associated to pain. The other would not show such behavior since he has been; 'educated in this way' (Wittgenstein, 1998a, p.118). Wittgenstein theorises that while the two would use the word 'pain', the two uses of 'pain' in fact express different concepts given the radically different type of behaviour associated to the use of the word in both cases (Wittgenstein, 1998a, p.118). However, the Later-Wittgensteinian characterisation of belief need not go as far as to claim that in referring to the pain experienced by Ordinary Peter and to that experienced by Super-super Spartan Peter, we are using the same word (pain) to express two different concepts. It may deal with this counter-example in terms of the difference in *ceteri paribus* conditions, just as in the case of Mary. The Later-Wittgensteinian dispositionalist approach may grant that Ordinary Peter's belief that he is in pain is akin to the belief of Super-super Spartan Peter, and explain the difference in behaviour in terms of excusers, namely of the notable differences in their temperament and character. Both Super-Super Spartan Peter and ordinary Peter believe themselves to be in pain, i.e. both have similar dispositions to produce determinate behaviour. Yet, their radically different temperaments and characters (due to the different upbringing) imply that they actually behave very differently. The Super-super Spartan's temperament will be the excuser preventing the behavior associated to the dispositions to which his belief that he is in pain amounts from manifesting itself. On the other hand, ordinary Peter has no such excuser. In a hypothetical scenario where they are both ordinary humans, ordinary Peter and Super-super Spartan Peter will both act in the same way when they are in pain.

Regarding the fourth counter-example, a dispositionalist account would reject Dunn's and Mandalebaum's claim that beliefs cannot be sets of dispositions because the former are causally efficacious while the latter are not. Contrary to what Dunn and Mandlebaum hold, beliefs are causally inert. Just as the glass' disposition to break will not cause the glass to break of its own accord, Peter's belief that the room is on fire on its own will not cause him to run away. Something else is required to trigger this behavior. Another individual may share Peter's belief that the room is on fire but not be moved to run out of the room. For instance, a Buddhist monk who wants to commit ritual suicide may entertain the same belief Peter has, i.e. that the room is on fire. The belief that there is a fire in the room on its own however, will not cause him to run away. The Buddhist monk would need something else, apart from the belief that the place is on fire, to flee the room.

Therefore, a dispositionalist characterisation of belief solely in terms of dispositions - a characterisation of belief that Wittgenstein upholds in various entries in his later work - can reject the previously considered counterexamples. Given dispositionalism, the belief that Napoleon was

the First Emperor of France would not have a person related to an abstract proposition. Neither would other intentional atititudes like anticipations, fear and hope (see Wittgenstein, 1988, p. 148). This is consistent with default presentism.

4.6 Conclusion

This chapter discussed the argument against presentism which has the following form:

i)   there are singular propositions that are specifically about particular entities in virtue of having these entities amongst their constituents.

ii)   if x is a constituent of y, then x is a part of the world.

iii)   From i and ii: in the case of singular propositions that are about things that do not exist at present, like <Napoleon was the First Emperor of France>, this would have an entity that does not exist at present as a constituent.

Conclusion: non–presently existing things are part of the world [from ii and iii]. Therefore presentism, including default presentism, is false.

Two arguments that deny premise ii) were considered. Following this, the Later Wittgensteinian response was presented. This denies that there are abstract propositions. Widely-held arguments for the existence of abstract propositions referring to the meaning of sentences and of tokens or utterances of certain sentences, and to intentional states like belief, were considered. The claim was made that in light of Wittgenstein's characterisation of meaning presented in Chapter 2, and of his characterisation of intentional states like belief, the postulation of abstract propositions is unwarranted.

The next chapter considers whether the sentence 'Napoleon was the First Emperor of France.' is ontologically committed to Napoleon, even if this does not express a proposition. The final chapters consider whether its truth requires Napoleon's existence.

Chapter 5 – Ontological Commitments of Sentences about past (future) events or entities

5 Introduction

The objection to presentism considered in this chapter focuses on the ontological commitment of sentences like 'Napoleon was the First Emperor of France.': the entities and characteristics such sentences would be; 'asserting or implying' are part of the world. The objection suggests that sentences about past events or entities are ontologically committed to the entities or events they are about. 'Napoleon was the First Emperor of France.' would be asserting or implying that Napoleon is part of the world. The chapter will first present the issue in detail followed by two possible presentist responses. The first response is based on a particular interpretation of metaphysics in terms of the fundamental-derivative divide (2.2). The second response is based on Prior's tense logic (2.3). The chapter will close with a later Wittgensteinian response to the objection (2.4).

5.1. Logical form, ontological commitment and the Quinean understanding of metaphysics

The criticism to presentism considered in this chapter begins with W. V. O. Quine's characterisation of the primary aim of metaphysics and of the means philosophers should use to attain this aim. Quine claims that the major issue in metaphysics is 'the ontological question', which interrogates what types of entities exist and are part of the world (see Quine, 1948, p.21).[1] The other questions addressed by philosophers in metaphysics - questions like whether the soul exists, or whether a characteristic like 'red' needs to be understood in realist or nominalist terms - are subservient to the main ontological question: 'What exists?' (see Quine, 1948, p. 33).

In order to determine what exists, Quine suggests that we start from sentences that belong to our 'best theories' about the world, and uncover their logical form through predicate logic.[2]

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[1] By 'what entities exist' one should understand, the kind of entities that exist, rather than particular specimens. For instance, one should consider whether ghosts exist, not whether a particular ghost exists.

[2] 'Sentences belonging to our best theories' is an ambiguous phrase. Van Inwagen interprets this as sentences that relate to or are about entities that are part of the world or aspects of the world, which we consider to be true (see Van Inwagen, 1998, pp. 242 - 246).

These sentences should be translated in this fashion, as their logical form or syntactic structure may not be evident from how they appear in their everyday use – i.e. from their surface grammar. (Quine, 1948, p. 33). In these formal sentences, quantifiers, variables and predicates would be introduced as a: 'regimentation' of linguistic expressions, which appear in object sentences (Van Inwagen, 1998, pp. 238-243). Each term of the object-sentence would be characterised clearly according for what it is: whether it is a name, a predicate, a description, a quantifier, or any other type of linguistic expression.

Further still, regimented sentences would also clearly indicate the entities to which the object-sentence is ontologically committed (Ludwig, 2016, pp. 248–249). If a true sentence belonging to our best theories implies or asserts that an entity is part of the world, and that this entity exists in some way or another, the world would contain this entity and it would exist according to how it is represented in the formal sentence.

Each term in the object sentence will be interpreted and translated by different philosophers according to different theories. This will influence the ontological commitments the sentence will be taken to have. Consider the sentence 'Peter is taller than Caesar.'. This sentence will have one logical form or syntactic structure, and determinate ontological commitments, if 'taller than' is interpreted as a relation between Peter and Caesar. It will have a different logical form or syntactic structure, and different ontological commitments, if 'taller than Caesar' is interpreted as a predicate which Peter instantiates.[1] Quine therefore suggests that:

i)   the main objective of metaphysics is to determine what entities are part of the world.

ii)   this objective is achieved through the formal translations of sentences belonging to our best theories using predicate logic. This would reveal their ontological commitments.

The criticism of presentism considered in this chapter accepts Quine's characterisation of the purpose of metaphysics and his suggested methodology. It holds that the translation of 'Napoleon was the First Emperor of France.' is:

$$\exists!x \, N(x) \, \& \, WF(x)$$

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[1] In turn, the sentence will have definite ontological commitments if relations and/or properties are understood in realist, or in nominalist terms. If 'taller than Caesar' is understood as a property in realist terms, it will imply that the world contains the abstract property 'being taller than Caesar'. If it is interpreted as a property but in nominalist terms, it will only be committed to a set of objects that are taller than Caesar.

where 'N' and 'WF' stand for the predicates 'Napoleonizes'[1] and 'was the First Emperor of France', and '!' indicates that there can be at most one entity for which the variable x would stand. In English this would read: 'There is one and only one x, and x Napolonizes, and x was the First Emperor of France'. Thus, even if 'Napoleon was the First Emperor of France.' does not express a singular proposition that has Napoleon amongst its constituents – as per the criticism considered in chapter 4 - this translation would imply that there is an entity which instantiates the predicates 'Napoleonizes' and 'was the First Emperor of France' (see Effingham, 2013, pp. 135-136). Since this entity does not exist at present, presentism – including default presentism - would be false. Default presentism, should not be used to reject McTaggart's argument.

The following sections (5.2 – 5.3.ii) consider two possible ways in which a presentist thinker may respond to this criticism in detail. The first addresses the issue from a meta-metaphysical perspective, and claims that the Quinean distinction between what does and does not exist is not metaphysically important. This argument is laid out in some detail since, though it represents one way in which the criticism to presentism being considered in this chapter may be addressed, it is quite rare to come across such an interpretation of presentism in mainstream literature. The second argument is more common and is referred to in this thesis as 'Operator Presentism'. This retort accepts a Quinean characterisation of the purpose of metaphysics and the manner of attaining this aim, while asserting that the issue facing presentism arises only because the logical form or syntactic structure of 'Napoleon was the First Emperor of France.' is misrepresented in the above translation. The sections in question also consider the shortcomings of these responses. In light of these shortcomings, the chapter suggests that the version of presentism being supported in this thesis – default presentism – should adopt neither response. Instead, it formulates a response based on the later Wittgenstein's own philosophy. This is laid out in 5.4. In many ways, this later Wittgensteinian approach is similar to, but also significantly different from, Operator Presentism.

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[1] Quine states that ordinary proper names are not logically proper names, but truncated definite descriptions. Logically proper names have the entities they denote as their meanings. If this were the case, and if 'Pegasus' is a logically proper name, the winged horse would have to exist (Quine, 1948, pp. 23-24). If instead 'Pegasus' is considered as a truncated definite description, this would not follow. The name 'Napoleon' would also be a truncated definite description. The definite description of Napoleon would be '$\exists!x$ ('was born in Corsica' (x) & 'joined the Paoli movement' (x) & ….) & $\forall y$ (was born in Corsica(y) & 'joined the Paoli movement' (y) & ….. -> x = y))' However, rather than relying on such cumbersome and long descriptions in one's translations, Quine suggests using these; 'artificial and trivial-seeming device' (Quine, 1948, p. 27) of using predicates like 'Napoleonizes' as stand-ins for these descriptions.

5.2. First presentist response – Fundamentalist presentism

The first response to the objection to presentism that will be considered (5.2 and 5.2.1) rejects this objection on meta-metaphysical grounds. This thesis considers three versions of this presentist response despite the fact that it is not consonant with the Wittgensteinian approach from which default presentism – the version of presentism propounded in this thesis - stems. These three versions are being showcased in some depth because they represent relatively unchartered territory in contemporary metaphysics.

As stated in section 5.1, the objection to presentism which refers to the ontological commitments of sentences such as 'Napoleon was the First Emperor of France.', is based on a Quinean characterisation of the purpose of metaphysics and of how this purpose is achieved. It suggests identifying – or (metaphorically) drawing a list of - the types of entities that are part of the world by regimenting sentences which belong to our best theories through the use of predicate logic. However, some philosophers believe this enterprise to be relatively unimportant: that the main purpose of metaphysics is not the ontological quest to establish what exists. These philosophers would suggest that some entities or facts are more fundamental than others: that there is a fundamental realm of facts or entities which somehow accounts for other facts or entities.[1] Rather than identifying which entities are part of the world, the main purpose of metaphysics is to indicate the entities or facts that fundamentally exist or obtain; the entities or facts that account for the other entities and facts that exist or obtain in a non-fundamental manner.

Jonathan Schaffer contends that there is a long tradition in metaphysics, dating back to Plato and Aristotle and passing through Descartes and Spinoza, which articulates the purpose of metaphysics along these lines (Schaffer, 2013, pp. 350-354, pp. 375-376). Within this tradition, questions regarding existence like the one posed by Quine are trivial, whereas questions about fundamentality are interesting. Consider the debate on the existence of numbers. Schaffer argues that the answer to the question as to whether numbers exist is trivial and clearly affirmative. 3 is a prime number while 40 is not. In other words, 3 has characteristics which 40 does not have. The numbers 3 and 40 must therefore exist (Schaffer, 2013, p. 357). But for Schaffer this is not an interesting question. The intriguing question is: whether numbers exist fundamentally or derivatively (i.e. whether or not they exist in virtue of something else). The same is true for most debates in metaphysics (Schaffer, 2013, p. 363). Take the debate between materialism and dualism,

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[1] Cameron holds that this claim intuitive, metaphysically relevant, and theoretically useful. It would enable one to explain the existence or obtaining of all other entities or facts that exist or obtain in the world. (Cameron, 2007, p. 12)

or the issue surrounding the existence of possible and impossible worlds. These topics are only interesting if they are considered in fundamental-derivative terms, i.e. if minds and possible or impossible worlds exist derivatively or fundamentally (Schaffer, 2013, pp. 361-365).[1]

A presentist who supports this understanding of metaphysics may attempt to reformulate presentism along fundamental-derivate lines. The thesis calls this reformulation 'fundamentalist presentism'. Standard presentism maintains that whatever exists and/or any facts that obtain, exists or obtains in the present (Merricks, 2017, p. 119). Given this, Obama would be part of the world, while Napoleon or George the 23rd would not. On the other hand, fundamentalist presentism concedes that there are past and future entities which are also part of the world: that there are facts which also obtain in the past and future. As a result, it is decidedly more permissive than standard presentism regarding the entities and/or facts contained by the world.

Yet, fundamentalist presentism argues that fundamental entities and/or fundamental facts can only exist or obtain in the present.[2] So if the time 10.07 am of the 4th September 2022 is the present, the fundamental entities and/or facts would exist/obtain only at this time. Derivative entities and/or derivative facts may however exist at other times. Similarly, when 10.07am 5th September 2022 will be the present time, fundamental entities and facts will only exist/obtain at this time. When September 5th will be present, derivative entities and facts may also exist/obtain at other past/future times[3]

To be a species of presentism however, fundamentalist presentism must not merely assert that the fundamental entities and/or fundamental facts exist or obtain only at present. If the reality of time requires the reality of change, as McTaggart claims, fundamentalist presentism must also hold that these fundamental entities and/or fundamental facts undergo some change. A list or description of the fundamental entities or fundamenal facts that exist or obtain today would have to be different from a list/description of the fundamental entities or fundamental facts that one could have drawn, say, 300 years ago. Some sort of transition at the fundamental level must obtain if time is a fundamental feature of the world (Williams, 1996, p. 372). Otherwise fundamentalist presentism would be a theory akin to the timeless theory which McTaggart advocates. If the list/description of fundamental entities and/or fundamental facts were to undergo no change, there would be no change and hence no time at the fundamental level: the level that is

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[1] Schaffer lays out the fundamental-derivative distinction in terms of entities. As will be seen further down in the chapter, the distinction can also be couched in terms of facts.
[2] However, it need not hold that only fundamental entities/facts exist/obtain at present.
[3] The claim that what exists/obtains fundamentally exists/obtains at present, requires independent motivation.

metaphysically interesting according to this characterisation of metaphysics.

In this sense, fundamentalist presentism:

- rejects the criticism to presentism considered in this chapter on meta-metaphysical grounds. It suggests that the key issue is not whether entities and facts only exist or obtain in the present, but whether fundamental entities and/or fundamental facts exist or obtain only in the present.

- states that fundamental entities and/or facts exist and/or obtain only in the present. Past and/or future entities like Napoleon or facts like World War III being bloody, may exist or obtain derivatively.

- maintains that the fundamental entities or facts that exist or obtain now, exist or obtain in a way that is in some respect different from the way in which the fundamental entities or facts existed or obtained in the past, or from how fundamental entities and/or facts will exist or obtain in the future.

The fundamental-derivative distinction in metaphysics has been characterised in various ways by philosophers who accept it. In what follows three such characterisations of the fundamental derivative divide (by Schaffer, Kit Fine and Ted Sider), and the versions of fundamentalist presenstism that follow from these, are considered. This should not be taken to imply that Schaffer, Fine or Sider uphold or would uphold the version of presentism that results. (Indeed, Fine and Sider are eternalists.) With the partial exception of Sam Baron, no philosopher upholds any of the three versions of fundamentalist presentism presented. They are nonetheless versions of presentism that may be consistently upheld by a presentist who agrees that the purpose of metaphysics is to characterize the realm of fundamental entities and/or facts. The thesis considers what the ontological commitments of sentences like 'Napoleon was the first Emperor of France.' would be given each versions, and the risks involved in adopting any version of fundamentalist presentism (2.3.1).

5.2.i. Fundamentalist presentism along Schafferian lines

In his work, Schaffer characterises the fundamental-derivative distinction in terms of the grounding of entities. Grounding is a primitive, unanalysable and intuitive notion, involving transitive, irreflexive and asymmetric relations between different kinds of entities (Schaffer 353,

pp. 375-376). Some *x* is a fundamental entity if nothing grounds the existence of *x*. On the other hand, entity *y* is derivative if something grounds the existence of *y*. Fundamental entities; 'form the bedrock of reality' (Effingham, 2013, p. 202), while derivative entities are an; 'ontological free lunch' (Schaffer, 2013, p. 361). In this sense, the object of metaphysics is to discover which entities are fundamental (Schaffer, 2013, p. 351).

In the paper 'Monism, the Priority of the Whole' Schaffer claims that there is only one fundamental entity, the world considered as a monadic whole. The world would be a single entity that has proper parts (Schaffer, 2010a, p. 35). Schaffer gives arguments from physics (Schaffer, 2010a, p. 50), Quantum Mechanics (Schaffer, 2010a, pp. 51-57), diversity (Schaffer, 2010a, pp. 57-60), the impossibility of pluralism to account for the possibility of atomless gunk (Schaffer, 2010a, pp. 61-65), and truth-making (Schaffer, 2005, p. 307) to buttress this claim. In Schaffer's writing on fundamentality then:

1) metaphysics is about the grounding of entities and about defining what entities are fundamental. These fundamental entities ground all the other entities that are 'an ontological free lunch.'

2) there is only one fundamental entity, the world.

Both of these assertions are clearly distinguishable, as Schaffer implicitly acknowledges in the paper 'On What Grounds What'. Here, he characterizes the debate between monism and pluralism along fundamental-derivative lines as being a debate about whether the fundamental entity or entities is/are one or many. Schaffer favours the first possibility, while not dismissing the second as incoherent (Schaffer, 2009, p. 321).

A version of fundamentalist presentism inspired by Scahffer should hold that what exits fundamentally, only exists at present. This would imply that any entities that exist at other times, exist derivatively. However, fundamentalist presentism should not endorse Schaffer's monism, which holds that the world - considered as a mereological whole containing all other entities as parts - is the fundamental entity. If the world is the fundamental entity, this would only exist at present given this version of presentism. This would imply that any entity whatsoever – whether existing fundamentally or derivatively - also exists at present. It is would not be possible that the world (considered as the fundamental entity) exists only at present, but some of its proper parts (the derivative entities) exist at other times. (This would be as incoherent as someone who believes

that there is a mereological whole of bodily parts that is John, John exists in one delimited space s1, and yet there is some part of John that exists outside s1.[1]) It would make fundamentalist presentism akin to standard to presentism, and indistinguishable in terms of consequences.

A fundamentalist presentist inspired by the work of Schaffer which holds that the world is the fundamental entity and that it exists only in the present along with all of its contained derivative entities, would not be in a position to rebut the criticism that is being considered in this chapter. If all the entities there are exist in the present - regardless of whether they are derivative (such as Obama or my desk) or fundamental (such as the world itself) - Napoleon would not be part of the world. Yet, if the true sentence 'Napoleon was the First Emperor of France.' is ontologically committed to the existence of the former leader, this would make this version of fundamentalist presentism untenable. The sentence would be ontologically committed to an entity (Napoleon) that this version of fundamentalist presentism would rule out is part of the world.

However, it is possible to formulate a Schafferian version of fundamentalist presentism that does not consider the world to be the fundamental entity. After all, the claim that metaphysics should be about delineating the fundamental entities that ground all other entities, and the contention that the world is the only fundamental entity, are distinct claims. This Schaffer-inspired versions of fundamentalist presentism would:

1) characterise presentism in terms of the grounding of entities, rather than simply in terms of what exists.

2) maintain that there is a plurality of fundamental entities. These are not grounded in anything else, but ground all other entities.

3) assert that this plurality of fundamental entities only exists in the present and undergoes some form of change. These changes account for the changes that derivative entities undergo.

4) argue that there are derivative entities whose existence is grounded in fundamental entities.

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[1] If it were suggested that only some parts of this mereological whole are fundamental, then it would not be the entire world that is the fundamental entity - which is the position upheld by Schaffer– but only those parts.

These entities exist in the past, the present and the future.

Such a version of presentism would be definitely Schafferian since, as stated, the two claims Scahffer makes - that metaphysics is about the grounding of entities and that the world is the fundamental entity - are distinct claims.[1]

The rest of this section addresses Sam Baron's version of presentism, which is based on an account of fundamentality that is similar to Schaffer's (i.e. in terms of the grounding of entities). Obviously, it is possible to draw other Schaffer-inspired versions of fundamentalist presentism that allow for a response to the criticism of presentism considered in this chapter, provided it abides by the above criteria. Yet, the thesis refers to Baron's version because it is one of the few versions of fundamentalist presentism available in time-related literature.

Baron calls his version of presentism 'Priority Presentism'. In his version, Baron distinguishes between two types of grounding: diachronic and synchronic. Synchronic grounding is when an entity *e* existing at a time *t*, is grounded by another entity *e1* that also exists at *t*. Diachronic grounding is when an entity *e* existing at a time *t*, is grounded in another entity *e1* that exists at a different time *t1*. This distinction implies that entities can be fundamental or derivative in a diachronic or synchronic manner. As such:

e is synchronically fundamental if *e* exists at *t*, and there is nothing at *t* which grounds *e*.

e is synchronically derivative if *e* exists at *t*, and there is something at *t* which grounds *e*.

e is diachronically derivative if *e* exists at *t*, and there is something at some other time *t1* which diachronically grounds *e*.

e is diachronically fundamental if *e* exists at time *t*, and there is nothing at *t* or at any other time *t1* which diachronically grounds *e* (Baron, 2015, p. 329).

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[1] This Schafferian version of fundamentalist presentism should not be mistaken with a presentist version of nihilism - a version of presentism which argues that there are no composite objects like Napoleon, the author of this thesis, a desk, or George 23rd - but the world contains only ontological simples existing in the present. This presentist-nihilist position would deny that the sentence 'Napoleon was the First Emperor of France.' is ontologically committed to the former leader for the same reasons that it would argue that the sentence 'Obama is in Chicago right now.' is not ontologically committed to the former president: i.e. given nihilism, the world cannot contain entities like Napoleon and Obama. It can only contain simples arranged Napoleon-wise or Obama-wise. Conversely, the Schaffer-inspired fundamentalist presentist believes that the world contains both Napoleon and Obama. However, neither would exist fundamentally. Their existence is grounded in other fundamental entities, which only exist in the present.

Thus, an entity or a set of entities can be synchronically fundamental yet be diachronically derivative. Suppose that there is a set of entities **S***e* (a set of properties and particles) exists at a past time *t1*, and that this set of entities grounds the existence of dinosaurs existing at *t1*. This set of entities is synchronically fundamental at *t1*. This is because there is nothing at *t1* that grounds **S***e* (whereas **S***e* grounds the existence of dinosaurs existing at this time). Yet, since **S***e* exists in the past, its existence is grounded in other entities which exist in the present. As a result, **S***e* is synchronically fundamental while being diachronically derivative.[1]

What at present would ground **S***e* would be what Baron calls 'tensed properties' which are instantiated by the world in the present (Baron, 2015, p. 334). An example of these properties would be the property 'having been such to have contained dinosaurs'. The world instantiating these tensed properties would ground the existence of all entities existing at other times. It grounds both those entities which at other times would exist fundamentally (like the set of entities **S***e*) and those that would exist derivatively (the dinosaurs).

On the other hand, the existence of any object in the present - be this synchronically derivative or a synchronically fundamental entity - is not grounded in any entities which exist in the past or future (Baron, 2015, p. 330). In light of this, it is correct to say that no present entity is diachronically derivative. However, there are presently existing entities like Obama or this desk that are synchronically derivative entities. These are grounded in a number of currently existing particles and properties whose existence is not grounded in anything else.[2] The synchronically fundamental entities which presently ground the existence of Obama or this desk, will eventually become diachronically derivative in the future/were diachronically derivative in the past. Thus, 200 years ago and 200 years in the future, the properties and particles that ground the existence of Obama or this desk were/will be grounded in the world instantiating some tensed properties.

Therefore, for Baron, the entities that are ultimately fundamental (responsible for grounding all entities contained by the world) and which exist only in the present are split into two types:

a) currently existing synchronically fundamental entities like particles and properties, which ground derivative entities that exist in the present (like Obama and this desk) and are themselves (as long as they exist in the present) not grounded in the existence anything.

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[1] Diachronically fundamental entities would exist only at present.
[2] In contrast to those entities which are synchronically fundamental at past or future times, like **S***e* at *t1*.

b) currently existing diachronically fundamental properties – what Baron calls tensed properties - whose instantiation by the world grounds the existence of synchronically derivative and synchronically fundamental entities that exist at other times.

A Schaffer-inspired version of Fundamentalist presentism, such as Baron's complex version presented above, would not object to 'Napoleon was the First Emperor of France.' being ontologically committed to the former leader. Since Napoleon exists derivatively, his existence is not metaphysically important.

Schaffer's understanding of fundamentality is characterized in terms of entities. A fundamentalist version of metaphysics may characterise the fundamentalist-derivative divide in terms that do not refer, or do not refer solely, to the grounding of entities. For instance, it may characterise this divide in terms of facts. As such, it is possible to consider other versions of fundamentalist presentism. The following sections presents two such versions.

5.2.ii. Fundamentalist presentism along Finean lines

Fine gives two characterisations of the fundamental-derivative divide. The first is formulated in terms of propositions, reality, and the notion of grounding (Fine, 2001), with the fundamental-derivative divide characterised in terms of the grounding for propositions rather than entities (as in Schaffer's version). The second theorises two levels of reality - metaphysical reality and mere reality - and sentences that describe what exists or occurs on these levels. The thesis presents a version of fundamentalist presentism that is based on his later view.

Fine notes that in some true statements which represent reality or aspects of reality, there are features which do not accurately reflect what is represented. True sentences may represent certain entities (British society), aspects of reality (colours) or even certain facts (murder being evil) that may not exist or obtain in the world. Though such sentences may be true, it may not 'really' be the case that murder is evil, that a particular chair is blue, or that there 'really' is the entity 'British society'. This is because world would not contain moral facts, only people with certain attitudes. It would not contain objects like coloured chairs, but only atoms arranged chair-wise. (This arrangement then determines that we see objects like chairs, which have certain colours.) Also, there would not really be constructs like societies, but only individual humans (Fine, 2008, pp. 267-268). In light of this, Fine distinguishes between what merely exists or what is merely the case - mere reality - and what really exists or what really is the case - metaphysical reality (Fine, 2008, p. 267). Constructs like British society, moral facts like 'murder being evil', and entities like

blue chairs, would exist or obtain at the level of mere reality.

By focusing simply on what exists, the Quinean project does not distinguish what entities exist or what facts obtain at the level of metaphysical reality, and what exists or obtains at the level of mere reality. Uncovering the logical form of sentences like 'The chair is blue.' in terms of predicate logic and the entities to which the sentence is ontologically committed given its syntactic structure, does not indicate if the entities and properties to which the sentence is committed belong to either one level of reality or to the other (Fine, 2008, p. 267). Metaphysics should instead be concerned with the level of metaphysical reality and with the sentences that describe this level of reality.

Fine suggests that sentences describing facts or entities that belong to the fundamental level of reality (Metaphysical reality) should include a primitive sentential operator, the Reality Operator '**R**' (meaning: 'in reality it is the case that'). To give an example, suppose that metaphysical reality contains only atomic particles but no chairs. The sentence:

'The chair is blue.'

describes a fact that obtains at the level of mere reality and is true. However, the sentence

'**R** the chair is blue'

is false because no chair exists at the level of metaphysical reality.

Fine himself is an eternalist (see Fine, 2008, pp. 271-320). Yet, his meta-ontological approach may be appropriated to formulate another version of fundamentalist presentism. As such, a version of fundamentalist presentism that is inspired by Fine would:

a) characterise presentism in terms of mere reality and metaphysical reality.

b) assert that the facts which obtain or the entities which exist at the level of metaphysical reality would only exist or obtain in the present.

This Fine-inspired version of fundamentalist presentism would argue that the facts that obtain or entities that exist at the level of metaphysical reality, which can be described through sentences containing the sentential operator '**R**', would describe entities and facts which exist or obtain only in the present.

As stated in 2.2, fundamentalist presentism requires that the fundamental facts/entities undergo some change. The implies that the set *S* of all true sentences containing the reality

operator '**R**' that describe all the facts that obtain/entities that exist at the level of metaphysical reality today, will be different from the set *S1* of all true sentences containing the reality operator '**R**' that will correctly describe all the facts that will obtain/entities that will exist at the level of metaphysical reality at some other times, say in 3014.

Regarding the objection to presentism considered in this chapter, this holds that 'Napoleon was the First Emperor of France.' is ontologically committed to the existence of Napoleon. This would imply that the sentence 'The world contains Napoleon.' is true. It seems that the Finean version Fundamentalist Presentist might concede this consequence. It seems that this version of fundamentalist presentism might accept that the sentence:

'The world contains Napoleon.'

is true, while holding that:

'**R** The world contains Napoleon.'

is false.

It might also appear, then that this version of fundamentalist presentism can easily rebut the criticism to presentism being considered in this chapter. However, this is not really the case. The Finean version of fundamentalist presentism - unlike what is the case with Schafferian version considered in the previous section - is not really effective to rebut the criticism to presentism being considered in this chapter.

Given how Fine characterizes the distinction between metaphysical reality and mere reality, the difference in truth-value between sentences like '**R** entity x is part of the world.' and 'Entity x is part of the world.' would imply that the entity 'x' is not really part of the world. Instead there would instead be something else (which is not x) that makes it the case that the sentence 'Entity x is part of the world.' is true.[1] If one applies this line of thought to the difference in truth-value between 'Napoleon is part of the world.' and '**R** Napoleon is part of the world.', the former being true and the latter being false would imply that the world does not really contain Napoleon. It would contain something else that accounts for the truth of 'Napoleon is part of the world.', but

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[1] As stated earlier, Fine explains the difference in truth value between 'British society exists.', which is true, and '**R** British society exists.', which is false, solely in terms of the world containing entities individual humans arranged in certain ways. These humans so arranged would make it the case that the sentence 'British society exists.' is true, even if the world does not contain British society (Fine, 2008, pp. 267-268).

not Napoleon. However, the critique to presentism being considered in this chapter is claiming that 'Napoleon was the First Emperor of France.' is ontologically committed to the world containing the past entity Napoleon, not to the sentence 'Napoleon was the First Emperor of France.' being true despite the world not containing this entity. Therefore, the Finean version of fundamentalist presentism does not circumvent the consequences of this criticism to presentism in meta-metaphysical terms, as on the other hand the Schafferian version does. (This concedes that the world contains the past entity Napoleon, but is not troubled by this since Napoleon is not a fundamental entity.)

5.2.iii. Fundamentalist presentism along Siderian lines

Sider also contributes to the debate on fundamentality by distinguishing between how the world exists fundamentally and how we speak or think about the world in everyday language (Sider, 2013, p. 1). He characterises fundamentality, not in terms of the grounding of entities by other entities (Schaffer), or in terms of different types of sentences which represent varying levels of reality (Fine). Sider characterizes the fundamental-derivative divide in terms of 'structure'. Structure is not an entity or construct. Structure is a posit: something that is postulated as underlying phenomena that are part of or obtain in the world. It cannot be defined in terms of, or reduced to, anything else. However, it can be used to explain the phenomena it underlies (Sider, 2013, pp. 15-18). Indeed, postulating structure is justified, due to its suitability for improving our models and theories of the world (Sider, 2013, p. 10).

According to Sider, the world has a distinctive structure which does not obtain by virtue of anything else. Facts about structure are therefore fundamental facts. Facts that are not fundamental and which obtain in virtue of fundamental facts that concern structure/aspects of structure, are derivative facts. (Sider, 2013, p. 5)

The purpose of metaphysics is to find the sub-sentential expressions that 'cut-at-the-joints'. These are linguistic expressions that express notions that can be used to refer to and describe parts or aspects of structure. Sentences that contain only linguistic expressions which 'cut-at-the-joints' can be used to describe fundamental facts (Sider, 2013, pp. 106-115). Suppose 'neutrons', 'electrons', and a particular relation between subatomic particles at a subatomic level called 'R' are all linguistic expressions that 'cut-at-the-joints'. The true sentence 'The neutrons R the electrons.' would describe a fundamental fact (Sider, 2013, pp. 75-76). If 'cat' is not a linguistic expression that 'cuts-at-the-joints', the true sentence 'The cat is on the mat.' does not effectively describe a fundamental fact. Instead, it describes a derivative fact that obtains in virtue of other

fundamental facts (Sider, 2013, p. 108). The relation between non-fundamental and fundamental facts can be articulated by sentences that contain expressions which 'cut-at-the-joints', as well as others that do not (Sider, 2013, p. 110). Amongst the linguistic expressions that 'cut-at-the-joints', Sider refers to linguistic expressions that convey the main concepts of physics, logic and mathematics, as well as to the word 'structure' itself (Sider, 2013, p. 6).

It is important to clarify that Sider is not a proponent of presentism. However, in *Writing the Book of the World*, he alludes to a version of presentism, which he claims is consistent with his characterisation of the fundamental-derivative divide, but in fact it is not (see Sider, 2013, pp. 239-246). Sider maintains that the issue between presentism and competing notions of time. is simply related to whether entities like dinosaurs or outposts on Mars are to be considered as part of the world or not. The issue is whether the existential quantifier 'Ǝ' (which Sider considers to cut-at-the-joints) only quantifies over what exists in the present, or if it also quantifies over entities that would exist at other times.

Yet, this account of the debate between presentism and eternalsim is not consistent with Sider's own characterisation of metaphysics and the role that structure plays in his interpretation. According to Sider, metaphysics is not concerned with the existence of entities like Obama and dinosaurs, but with structure. Even if a dinosaur or Obama are considered to be part of the world, this admission does not amount to much from a Siderian perspective because 'Obama' or 'Dinosaur' do not 'cut-at-the-joints'. Assuming it is true, the sentence 'The world contains Dinosaurs.' would not describe a fact that concerns structure.

A consistent version of fundamentalist presentism along Siderian lines should ignore his explicit characterisation of presentism (where he is still thinking in terms of Standard presentism). It ought instead to develop those insights that are consistent with his account of metaphysics in terms of fundamentality and of structure.

A presentist who accepts Sider's characterisation of the fundamentalist-derivative divide would assert that, among the notions that cut-at-the-joints, there are sub-sentential expressions like 'it is now the case', 'was', 'has been', and 'will be'.[1] With this in mind, the Sider-inspired version of fundamentalist presentism would contend that fundamental facts – specifically those facts that concern structure - are facts that only obtain in the present. These facts can be expressed through sentences that contain sub-sentential expressions like 'it is now the case'. True statements that

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[1] Sider himself claims as much, i.e. that a presentist will hold that these cut-at-the-joints (see Sider, 2013, p. 240).

describe structure and contain sub-sentential expressions like 'was', 'has been', or 'will be', describe fundamental facts that obtained but no longer obtain, or will obtain in the future but do not obtain at the moment. As such, a Sider-inspired version of fundamentalist presentism:

i) dismisses the arguments against presentism considered in this chapter on meta-metaphysical grounds. It asserts that metaphysics should not be concerned with what exists, but instead with the discovery of the sub-sentential expressions that 'cut-at-the-joints'. These can be used to articulate fundamental facts.

ii) maintains that sub-sentential expressions that cut-at-the-joints include expressions like 'it was the case that', 'it will be the case that', and 'it is now the case that'.

iii) asserts that any fundamental facts - which can be described through sentences that contain only sub-sentential expressions that 'cut-at-the-joints - only obtain in the present.

Unlike the Schafferian version of fundamentalist presentism, which involves entities existing at different levels of reality, the Sider version is couched in terms of facts. Moreover, it fares better than the Finean version considered in the previous section in relation to the criticism to presentism that is being considered in this chapter: i.e. the claim that 'Napoleon was the First Emperor of France.' is ontologically committed to Napoleon being part of the world. The Sider-inspired version of Fundamentalist presentism is not effected by the sentence 'Napoleon was the First Emperor of France.' implying or asserting that the world contains the former leader: by this sentences implying that another sentence 'Napoleon is part of the world.' is true. This is due to the fact that names like 'Napoleon' and the predicate 'Emperor of France' do not cut-at-the-joints. The sentence 'Napoleon is part of the world.' would not describe a fundamental fact. Rather, it describes a fact that obtains by virtue of a fact or facts that relate to structure. The Sider-inspired fundamentalist presentist would argue that this fundamental fact/these fundamental facts – which can only be articulated through sentences containing words which express notions that 'cut-at-the-joints' – is a fundamental fact that obtains/are fundamental facts that obtain in the present.

5.2.iv Fundamentalist presentism and default presentism

The criticism to presentism being considered in this chapter is based on a Quinean understanding of metaphysics whereby:

i)   the main purpose of metaphysics is to list the entities that are part of the world.

ii)   the aim is achieved by uncovering the syntactical structure or logical form of sentences belonging to our best theories through predicate logic. As a result, this would reveal their ontological commitments.

The criticism to presentism considered in this chapter claims that sentences like 'Napoleon was the First Emperor of France.' are ontologically committed to past entities like Napoleon. This would imply that presentism is false (5.1).

Despite their inherent differences, all versions of fundamentalist presentism considered above challenge the claim that presentism is false on meta-metaphysical grounds. All the versions considered assert that the world contains a realm of fundamental entities and/or fundamental facts, as well as a realm of derivative entities and/or derivative facts. In essence, they claim that the purpose of metaphysics is to characterise the fundamental realm. Therefore, metaphysics should be primarily concerned with the fundamental entities which ground all other entities (Schaffer): with sentences that effectively represent metaphysical reality (Fine): or with sub-sentential expressions that 'cut-at-the-joints' (Sider). If sentences like 'Napoleon was the First Emperor of France.' are ontologically committed to past entities like Napoleon, this result is not metaphysically intriguing. Napoleon himself is not a fundamental entity (the Schafferian version). The fact 'Napoleon being part of the world' does not obtain at the level of metaphysical reality (Fine-inspired Fundamentalist presentism) or is not a fundamental fact that relates to aspects of structure (the Siderian version). What is important is that the fundamental entities that ground all other entities, or the facts describable by true sentences containing the Reality Operator **R**, or those describable through sentences containing only linguistic expressions that cut-at-the-joints, all exist or obtain at present.

However, default presentism – the version presentism that follows from the Wittgenstenian rebuttal of McTaggart's argument that is being defended in this thesis – should not adopt any version of fundamentalist presentism to rebut the criticism being considered in this chapter. The reasons for this are three.

First, default presentism arises from a later-Wittgenstenian approach to the use of linguistic expressions like 'The Battle of Waterloo is past.'. It is a version of presentism that follows from how these linguistic expressions are typically used in the language-games where they are

usually employed (see 3.3). Fundamentalist presentism involves consequences that are at odds with how these linguistic expressions are typically used. As stated in 3.3, the typical use of 'The Battle of Waterloo is past.' implies that the event Battle of Waterloo (and the entities this involves) or the fact 'the battle of Waterloo is being fought' are no longer part of the world. All the versions of fundamentalist presentism considered above on the other hand, would have no problem with this event (and the entities that constitute it) or fact being part of the world, provided that this exists or obtains at a derivative level.

Moreover, fundamentalist presentism engages with the criticism to presentism being considered in this chapter in meta-metaphysical terms. The Later Wittgensteinian approach on the other hand – from which fundamentalist presentism stems - would dismiss as non-sensical the meta-metaphysical issues concerning the proper aim and method of metaphysics, in relation to which fundamentalist presentism rebuts this criticism to presentism. This is the second reason why default presentism should steer clear of fundamentalist presentism in all its version.

Referring to Dean Zimmerman's 'The Privileged Present: Defending an A-Theory of Time' Baron argues that his version of fundamentalist presentism shares an intuition that, according to Zimmerman, motivates presentism and makes this attractive. This is the intuition that the present is more real than the past (see Baron, 2015, pp. 338-336). However, this is not really the case. This intuition does not support Baron's version of fundamentalist presentism, or any of the other versions considered in sections 2.2.i - 2.2.iii. Indeed, it is antithetical to all these versions. This is the third reason why default presentism should not use fundamentalist presentism to rebut the criticism that is considered in this chapter.

The intuition referred to by Zimmerman holds that the present is more real than the past or future because current events, such as the writing of this thesis, or presently-existing ordinary entities like Obama, are more real than past, or future events or entities, such as Napoleon, George 23rd, the Battle of Waterloo or World War III. Obama is believed to be more real than Napoleon or George 23rd, owing to the fact that the world contains Obama, but not Napoleon or George 23rd (Zimmerman 2008, pp. 211-212).[1] Similarly, with regards to events, we typically think that the world contains the event 'the writing of this thesis', but not the events 'the Battle of Waterloo' or 'World War III'. In terms of facts, intuitively we think that the fact 'Obama exists' obtains, whereas

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[1] From a Later-Wittgensteinian perspective one would add that the typical use of sentences 'The writing of the thesis is present.' and 'The Battle of Waterloo is past.' supports this intuition.

the facts 'Napoleon exists' or 'George 23rd exists' no longer do/do not yet obtain.

While all versions of fundamentalist presentism agree that the present is more real than the past or future, this is not due to the fact that presently existing ordinary objects (or present events or facts that obtain in the present) are more real than past or future ordinary entities (or events or facts that obtained or will obtain in the past or future) as per the intuition in question. The present is more real because it contains a set of entities which grounds all other entities (Schaffer and Baron's versions). Or else, it is considered to be more real because metaphysical reality includes only facts that obtain in the present (Fine's version), or because only sentences containing the present tense operators such as 'now' can be used to describe fundamental facts (Sider's version).

According to all versions of fundamentalist presentism, the three entities involved in the facts 'Obama exists,' 'Napoleon exists' and 'George 23rd exists' (and the three facts themselves) are of equal importance in terms of what exists. They all belong to the non-fundamental level of reality. In the Schaffer-inspired version of fundamentalist presentism (including Baron's own), Napoleon, Obama and George 23rd would all be derivative entities whose existence is grounded in fundamental entities.[1] In the version of fundamentalist presentism inspired by Fine, the sentence '**R** Obama exists.' is just as false as the sentences '**R** Napoleon exists.' and '**R** George 23rd exists.'. Similarly, in the Sider-inspired version of fundamentalist presentism, sentences like 'Obama is part of the world.', 'Napoleon is part of the world.' and 'George 23rd is part of the world.' all fail to represent fundamental facts, since the names 'Napoleon', 'Obama', and 'George 23rd' do not 'cut-at-the-joints'.

While fundamentalist presentism is an interesting and generally an unexposed version of presentism which is not usually considered in relevant literature – hence the lengthy exposition – it is not an option which default presentism should use to rebut the argument against presentism considered in this chapter: i.e. the criticism holding that presentism is false because sentences like 'Napoleon was the First Emperor of France.' are ontologically committed to Napoleon. A defence of presentism against this criticism may choose other options. In what follows, two possible responses – one drawn in light of Prior's tense logic and the other drawing resources from Wittgenstein's own philosophy – are taken into consideration.

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[1] In Baron's own word; 'some present entities - namely the present derivative entitles – are on an equal ontological footing with past and future derivative entities' (Baron, 2015, p. 33).

5.3 Second presentist response – Operator Presentism

Section 5.1 addressed the claim that 'Napoleon was the First Emperor of France.' is ontologically committed to Napoleon and that presentism is therefore false. Sections 5.2 – 5.2.iii considered three versions of a presentist response, fundamentalist presentism, based on a certain meta-metaphysical view: one where the main objective is not to identify entities that are (not) part of the world, but to elicit the entities and/or facts that are considered to be fundamental. Two of these versions of fundamentalist presentism presented are not unsettled by sentences like 'Napoleon was the First Emperor of France.' being ontologically committed to the existence of past entities. This is because entities like the former leader are not fundamental entities. (The existence of Napoleon would not be a fundamental fact.) Fundamental entities and facts would only exist or obtain in the present. Section 5. 2. iv, presented reasons why default presentism should not uphold this response.

However, a presentist may refute the criticism identified in section 5.1 by claiming that the logical form of 'Napoleon was the first Emperor of France.' is misrepresented in the original argument, and asserting that the sentence is not ontologically committed to the former leader. It would reject that 'Napoleon was the First Emperor of France.' should be translated as:

Ǝ!x N(x) & WF(x).

This translation fails to account for an important feature of the sentence 'Napoleon was the First Emperor of France.': the fact that what it describes - namely Napoleon being the first Emperor of France – only obtains at specific times (see Ogihara, 2007, p. 392). Following Prior, the presentist approach that will be considered in this section asserts that tense operators are required in order to capture this characteristic of sentences like 'Napoleon was the first Emperor of France'.[1] The thesis calls this approach operator presentism. The two sections that follow indicate shortcomings of this approach: shortcomings that suggest that default presentism should not adopt operator presentism to rebut the criticism to presentism considered in this chapter.

Prior contends that the logical form of past and of future tense sentences contains the tense operators 'It was the case that' and 'It will be the case that'. These operators are primitive (not analysable in terms of anything else) and can be iterated (Prior, 2010, p. 12). Iterating such

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[1] The thesis considers Prior's characterisation of tense logic since is the one that is most popular amongst presentist philosophers who use tense-logic (see Lewis, 2004, p. 4).

operators determines complex tenses like 'it will be the case that it was the case' or 'it was the case that it will be the case'.

The tensed element in past or future tensed sentences is accounted for exclusively in terms of the application of such tense operators upon present tensed sentences. These tense operators modify the present tense sentences on which they operate to create new sentences from the originals (Prior, 1968, p. 13). The resulting sentences indicate when – in the past or the future - the contents of the original sentence obtain (Lane Craig, 2003, p. 393). The application of the tensed operator 'It was the case' to the present tensed sentence 'Napoleon is the first Emperor of France.' indicates that the contents of this present tensed sentence obtained at times in the past.

The operation of these tense operators on the present tense sentences is indicated in natural language by morphemes and alterations to verbs (Horstein, 1993, p. 8). For instance, the application of the tense operator 'it was the case that' to the present tense sentence 'Napoleon is the First Emperor of France.' is indicated by the modification of 'is' to 'was' in the everyday sentence 'Napoleon was the First Emperor of France.'. That that the activity of tense operators is indicated is indicated in everyday language through these modifications of verbs and morphemes is merely a; 'historical accident' (Prior, 1968, p. 13).

Thus, operator presentism would:

a) support standard presentism, which states that the world only contains entities that exist in the present. [1]

b) accept Quine's claim that the ontological commitments of sentences are captured by uncovering their logical form through predicate logic.[2] The formal sentence produced would be a paraphrase of the everyday language object sentence.

c) maintain that the logical form of tensed sentences like 'Napoleon was the First Emperor of France' includes tense operators.

Philosophers who may be considered as operator presentists include Prior, Craig Bourne (Bourne, 2006, p. 58) and Lane Craig (Lane Craig, 2000, pp. 190-194).

The logical form of 'Napoleon was the First Emperor of France.' includes the tensed

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[1] For Prior; 'The present is simply the real considered in relation to two species of unreality' (Prior, 1972, p. 320).
[2] One should use; 'rationalised language with uniform constructions' (Prior, 1968, p. 13) to determine what these sentences imply or assert regarding the contents of the world.

operator 'it was the case that' and the present tensed sentence 'Napoleon is the First Emperor of France' (Prior, 1968, p. 13). Symbolically, this can be formulated as:

$$\boldsymbol{P}\, [\exists t\ \exists!x\colon N(x,t)\,\&\,FEF(x,t)]$$

'$\boldsymbol{P}$' represents the tense operator 'it was the case that': N(xt) represents 'Napoleonises at t': and 'FEF (xt)' represents 'being the first Emperor of the French at t'. (In everyday language: 'It was the case that, for some time t and for a definite x, x Napoloeonises at t and x is the First Emperor of France at t'.) Given this translation, 'Napoleon was the First Emperor of France.' is not committed to a world that contains the former leader when the sentence is uttered or tokened (Prior, 1957, pp. 32-38). It is committed to the world having contained him at some time t earlier than when the sentence was uttered or tokened. This interpretation is consistent with most versions of presentism, including default presentism.

In contrast to fundamentalist presentism, operator presentism retains the intuitive distinction between present entities like Obama (who would be part of the world), and past or future entities, like Napoleon or George 23rd (who no longer are or are not yet part of the world). However, it presents a series of issues, which this thesis addresses by engaging with two examples in following sections. The first issue arises with relations between objects that exist at different times. Operator presentism has the resources to address this difficulty, provided it admits the existence of abstract properties. The second and more serious issue concerns whether the logical form or syntactic structure of tensed sentences actually includes tense operators as stated by operator presentism. The difficulties operator presentism faces in relation to this issue suggest that default presentism should not refer to this approach to rebut the criticism being considered in this chapter.

5.3.i. Difficulties for Operator Presentism – intra-temporal relations

Consider the past tense sentence:

'Churchill was taller than Napoleon.'.

This sentence seems to refer to a relation between the entities Churchill and Napoleon. It appears that such a relation as 'taller than' can obtain between two or more entities only if these entities are part of the world (see Bigelow, 1996, p. 37). If 'Churchill was taller than Napoleon.' indicates a relation between the former and the latter, the sentence would be ontologically

committed to the existence of these two entities and to them being related with one another by means of the relation 'taller than'. Suppose the sentence is translated as:

$$\textbf{\textit{P}}\,[\exists t\,\exists!x\colon C(x,t)]\ \&\ \textbf{\textit{P}}\,[\exists t1\,\exists!y\colon N(y,t1)]\ \&\ \text{'taller than'}\,(x,y)\ \&\ t \neq t1.$$

where 'C' represents the predicate 'Churchilises', and where the relation 'taller than' holds between x and y in that order. (In words, the sentence would read: 'It was the case that for some time t and for one definite x, x Churchilises at t, and it was the case that for some time $t1$ and for some y, y Napoleonizes at $t1$, and x is taller than y.'.) The translation suggests than an individual, which exists at some time t, is related to another individual, at a different time $t1$. If the existence of a relation involves the existence of the *relatata*, as many philosophers hold (see Heil, 2021, p. 23), Napoleon and Churchill would have to be part of the world.

Operator presentism cannot accept this. Given presentism's claim that the world contains only entities that exist in the present, relations can only occur between entities that are part of the world in the present (see Le Poidevin, 1991, p. 37). When 'May 1st 1815' was the present, relations would have occurred only between entities that existed on May 1st 1815. Similarly, when 'May 2nd 1940' was the present moment, relations would have occurred only between entities that existed on this particular day. Regarding Chuchill and Napoleon, when the world contained Napoleon, it did not contain Churchill, and vice versa. Since both did not exist at the same times, the two could not have been related one to the other.[1] Philosophers who uphold operator presentism must find ways in which the translation of the sentence 'Churchill was taller than Napoleon.' does not imply that the two individuals are or were related one to other .

Bourne contends that the relation 'taller than' in 'Churchill was taller than Napoleon.' does not obtain between entities existing at different times. Rather, it refers to a relation between; 'the relative magnitudes of [the] lengths' of the two objects (Bourne, 2006, p. 98). Therefore, it is a relation between two numbers. (Numbers are for Bourne; 'eternally existing objects'. See Bourne, 2006, p. 98). The translation of 'Churchill was taller than Napoleon' can be formulated as:

$$\exists n\,\exists n'\colon n > n'\ \&\ P[\exists t\,\exists!a\colon C(a,t)\ \&\ n\text{-tall}(a,t)]\ \&\ P[\exists t'\,\exists!a'\colon N(a',t')\ \&\ n'\text{-tall}(a',t')]$$

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[1] The logical form of this sentence cannot be represented as $\textbf{\textit{P}}\,[\exists t\,\exists!x\,\exists!y\colon C(xt)\ \&\ N(xt)\ \&\ \text{'taller than'}\,(x,y)]$ – in words 'It was the case that for some time t and for some definite x and for some definite y, x Churchilises at t and y Napoleonizes at t, and x is taller than y.' - since this implies that Churchill and Napoleon existed together at the same time, and were related to each other by the relationship 'being taller than'.

where *n* and *n'* are numbers, and 'n-tall (_,_)' represents the predicate 'is n-tall at'. (In standard English, this reads as: 'For a number n and a number n', n is larger than n'; and it was the case that at some time t and for a definite a, this a Churchillises at t and a is n-tall at t; and it was the case that for some time t' and for a definite a', this a' Napolonises at t' and a' is n'-tall at t'.')

This Bourne-inspired response avoids the claim that 'Churchill was taller than Napoleon.' is ontologically committed to the world containing both the former and the latter. As such, the world would not contain Napoleon or other past or future entities. However, the sentence would be ontologically committed to abstract entities like numbers.

Bourne's solution is not the only construal that an operator presentist may offer to the problem of supposed relations between objects that exist at different times. Lane Craig claims that the logical form of the sentence 'Churchill was taller than Napoleon.' does not actually include the relation 'taller than', but a monadic property. This would be a monadic property that the individual in the subject place instantiated at some of the times when he existed (Lane Craig, 2000, p. 212). The logical form of 'Churchill was taller than Napoleon.' includes the tense operator 'it was the case that', the one-place predicate 'being taller than Napoleon' (TN), which was instantiated by Churchill. Symbolically, this sentence can be translated as:

P   [∃*t* ∃!x: C(x,*t*) & TN(x,*t*)]

(In words: 'For some time t and for a definite x, x Churchillises at t, and x instantiates the property 'being taller than Napoleon' at t.'.)

The property 'being taller than Napoleon' can be understood as an abstract, yet real, property existing outside of space and time, or in nominalist terms. The former understanding s consistent with presentism but is committed to the existence of abstract properties, aside from concrete entities. On the other hand, if 'taller than Napoleon' is understood in nominalist terms, this gives rise to some pressing issues.

If the predicate 'taller than Napoleon' is understood in nominalist terms – i.e. in terms of objects belonging to definite sets rather than of objects and abstract properties or relations – it would denote a set of entities – a set which existed at *t* and which would have included Churchill-that were taller than Napoleon. This would imply that at *t* there were two sets of entities; those taller than Napoleon, and those not taller than him. For the division of entities along these lines

to make sense, the set of entities not taller than Napoleon must have included Napoleon himself.[1] Yet, operator presentist cannot allow this. When Churchill existed, there was no set of entities that contained Napoleon.

Other attempts to translate 'Napoleon was the First Emperor of France.' in nominalist terms and using tense operators result in similar diffculites. Consider the Inherent Vagueness Approach that Marcin Morzcyki proposes in his publication *Modification*. This approach focuses on the adjective 'tall' rather than predicates like 'being taller than Napoleon', and interprets 'tall' as an adjective which denotes a set of entities (Morzcyki, 2016, pp. 97-105). 'Tall' would have both positive and negative extensions in a variety of contexts, relative to its different presifications (i.e. how the term is specifically understood in each of these contexts). The positive extension would include all things that, relative to a particular presification of 'tall' in a specific context, would be classified as tall. The negative extension would include the entities that, relative to the same presification, are not classified as tall in that context. Relative to different presifications of the same term in different contexts, the same entity may fall in both the positive and the negative extension of the adjective. In a context where the height members of society is discussed, Peter might fall in the 'positive extension' of 'tall' given this presifiction of the term 'tall'. Peter however, may fall in the 'negative extension' of the adjective 'tall' in contexts where the presification refers to the average height of basketball players.

A translation of 'Churchill was taller than Napoleon.' using tense operators and the Inherent Vagueness Approach would determine that the sentence is ontologically committed to it having been the case that, with regards to a particular presification of 'tall', the world contained an entity named Churchill and that this entity fell in the positive extension of this term when it was part of the world. It would also be committed to the world having contained an entity called 'Napoleon' and to this entity falling in the negative extension of the term when it was part of the world. Symbolically:

$\exists$c: *P* [$\exists t$ $\exists$!x: C(x,*t*) & 'tall'(x,*t*,**c**] & *P* [$\exists t1 \exists$!y: N(y, *t1*') & 'tall'(y, *t1*,not **c**)]

where **c** is a particular presifcation of 'tall'. (In words 'For some precisification **c**, it was the case that, for some time *t* and a unique x, x Churchilizes at *t* and x is tall in **c** at *t*; and it was

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[1] This is evident if, by analogy, one considers in nominalist terms the predicate 'being darker than blue'. This would denote the set of entities whose colour is darker than blue. This set however, requires that there is also a different set: the set of entities whose colour is not darker than blue, which would include entities whose colour is blue (see Kirkham, 1995 311). Otherwise this division into these sets would not make sense. Similarly, for entities to be distinguished into the sets of entities that are taller than Napoleon, and those that are not taller than Napoleon, the latter set has to include the former French Emperor.

the case that, for some time *t1* and a unique y, y Napoleonizes at *t1* and y is not tall in **c** at *t1*.') This translation does not imply that Churchill and Napoleon are or were actually related to one another. Nor does it require Napoleon to have existed when Churchill was part of the world. The translation only implies that, with regards to a particular presification of 'tall', the world contained two different individuals which, at varying times t and t1. were respectively categorised in the positive and the negative extension of this presification. It implies that at times t, Churchill existed and was a member of a set of people who fell in the positive extension of 'tall' (given this presification). At another previous time t1, Napoleon existed and fell in the negative extension of 'tall', given this presification of the term.

However, one problem with this translation of 'Churchill was taller than Napoleon.' is that it has ontological commitments which the natural language sentence does not have. Given the Inherent Vagueness Approach's understanding of 'tall', the sentence requires that there are two sets of objects constituting both positive and negative extensions of this term, relative to the times in relation to which the adjective 'tall' is used (See Kirkham, 1995, p. 311). There would be two sets of entities constituting positive and negative extensions of the term 'tall' both at time t, and at t1. Churchill would have fallen in the positive extension at time(s) t, and Napoleon in the negative extension at time(s) t1. For the term 'tall' to have both positive and negative at t and t1 however, there must have been other individuals apart from Churchill and Napoleon at these two times. On the other hand, the existence of other individuals apart from Churchill and Napoleon does not seem to be implied by the natural language sentence 'Churchill was taller than Napoleon.'. In a world where the only entities existing at different times *t* and *t1* are Churchill and Napoleon, the sentence 'Churchill was taller than Napoleon.' would still make sense and possibly be true.

The criticism to operator presentism considered in this section is therefore not insurmountable, if one accepts the existence either of abstract entities like Platonic properties, or numbers. Operator presentism faces far more serious difficulties concerning the translations of some tensed sentences in natural language: difficulties which seem to be insurmountable. These are discussed in the following section. In light of such difficulties, it is suggested that default presentism should not refer to operator presentism to rebut the criticism considered in this chapter. Section 5.4 then suggests that one may concoct a response to the objection to presentism being considered in this chapter from Wittgenstein's own philosophy: a response based on the typical use of sentences like 'Churchill was taller than Napoleon.' rather than tense operators.

5.3.ii Difficulties for Operator Presentsim: Tense-Logic

Operator presentism maintains that the logical form of ordinary past and future tense sentences in natural language includes the tense operators 'it was the case that' and 'it will be the case that' (and possibly their repeated use). These would account for the tensed element of these sentences. However, it is contested whether this is the case: whether; 'natural language tenses are … operators' (Hornstein, 1993, p. 146). Various arguments may be referenced to justify this charge.

For Prior, natural language contains various devices like morphemes and modifications of verbs which indicate and express the operation of tensed operators when applied to present tense sentences. Consider the everyday sentence 'Peter walked.', which includes the morpheme 'ed' that modifies the verb 'walk'. This indicates the operation of the tense operator 'it was the case that' on the present tense sentence 'Peter walks.'. As noted in 5.3, tense operators can be iterated. The operator 'it was the case that' can operate on the sentence 'It was the case that 'Peter walks'.' to produce the perfectly meaningful sentence 'It was the case that {'It was the case that ('Peter walks.')'}.' which indicates a past time at which Peter's walking was already past. Toshiyuki Ogihara argues that, given that the morpheme 'ed' is the everyday language stand-in for the quantifier 'It was the case', this morpheme should be iteratable as well. The sentence 'Peter walkeded.' should be perfectly meaningful. Yet this is clearly not the case. Tense in natural language then, cannot be characterized in terms of tense operators (Ogihara, 2007, pp. 392 -396).

However, a proponent of operator presentism might argue that the reasons why 'Peter walkeded' is not used in English are syntactical and morphological, not semantic. In fact, sentences with the semantic structure 'It was the case that {'It was the case that ('Peter walks.')'}' can be expressed effectively in English through other means, such as through sentences liked 'Peter had walked.'. After all, Prior claims that the fact that the simple past is expressed through morphemes like 'ed' is merely a historical accidental related to the development of this natural language (see Prior, 1968, p. 13). Had the development of English been different, this tense could have been expressed through other means. As a result, Ogihara's objection can be met relatively easily.

In his paper 'Tensed Quantifiers' David Lewis claims that another challenge faced by Priorian tense logic relating to tensed sentences that refer to vague or indefinite number of times

(see Lewis, 2004, p. 7).[1] It seems that these cannot be accounted for by the tense operators 'It was the case that', 'It will be the case that', and the repetition of these operators. Consider the sentence 'There have been many rainy dawns in the past.'. The syntactical form of the sentence cannot be represented as:

$$\textbf{\textit{P}} \,[\exists t \exists x: RD(x \, t)],$$

where 'RD' is the predicate rainy dawn. (In words: 'It was the case that, for some time t and for some x, x is a rainy dawn at t.) A rainy dawn at any time t would make this sentence true. However, the sentence 'There have been many rainy dawns in the past.' requires the world to have contained more than one rainy dawn in order for it to be true. The logical form of the sentence cannot consist of a conjunction of nested sentences (one for each dawn) either. Its logical form cannot be represented as:

$$\textbf{\textit{P}} \,[\exists!t \; \exists!x: RD(x \, t) \; \& \; P \,[\exists!ti \; \exists!y: RD(y \, t1) \& \; P \; \exists!tn \; \exists!z: (\dots)]]^{2}$$

The number of nested sentences of the form '$\exists!t \; \exists!x: RD(x \, t)$' contained in a formal sentence that involves conjunctions would be definite. Yet, the number of dawns indicated in the natural language sentence is indefinite. If the number of nested sentences in the formal sentence is Φ, the translation of 'There have been many rainy dawns in the past.' would be ontologically committed to the world having contained Φ rainy dawns at varying times before the sentence is uttered or tokened. Thus, if the number of rainy dawns that occurred before the sentence was tokened or uttered is $\Phi + 1$, the formal sentence expressing the logical form of 'In the past there have been many rainy dawns.' would be false. On the other hand, an additional dawn would not alter what is suggested by 'In the past, there have been many rainy dawns.' in natural language nor its truth-value. Natural language sentence and the formal sentence expressing its logical form would differ in content, ontological commitment (one is committed to Φ number of dawns, while the other is not), and possible truth-values. However, operator presentism demands that both sentences are equal in all these respects, since the formal sentence is supposed to be a paraphrase of the sentence in natural language (see Prior, 1968, p. 17).

The logical form of 'There have been many rainy dawns in the past.' cannot be represented

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[1] While Lewis mentions this objection, he does not engage deeply with the difficulty. He only refers to the possibility of a presentist attempting to translate these sentences through disjunctions, but does not elaborate whether or not the issue is fatal for presentism (Lewis, 2004, p. 7).
[2] In words: 'It was the case that for a definite t and for a definite x, x is a rainy dawn at t, and it was the case that for a time $t1$ and for a definite y, y is a rainy dawn at $t1$, …and it was the case that for some time tn and for a definite z, z is a rainy dawn at tn….'.

by disjunctions either. Consider the formal sentence:

P[∃!t ∃!x: RD(x t) or P [∃!$t1$ ∃!y: RD(y, $t1$) or P[∃!tn ∃!z: (…..)]]]][1]

Given that the formal sentence contains disjunctions, one rainy dawn at any one of these times would suffice to make it true. One rainy dawn however, does not suffice to make it the case that the natural language sentence 'There have been many rainy dawns in the past.' is true.

An Operator Presentist might attempt to represent the logical form or syntactic structure of 'There have been many rainy dawns in the past.' through the use of time intervals and a different type of operator, referred to as a 'span operator'. A span operator is a primitive operator, that operates on a temporal interval containing a number of times, rather than on particular times (see Lewis, 2004, p. 11). In ordinary language the span operator would be indicated by expressions liks: 'It has been the case that'. The translation of 'There were many dawns in the past' can be schematically presented as:

Hb[| {x : ∃t: rainy-dawn(x,t)} | > m]

where 'm' indicates the threshold for 'many', and Hb the span operator 'It has been the case that'. (In words, 'It has been the case that the number of xs is such that, for some times t, x is a rainy dawn at t, and the number of xs exceeds the threshold for 'many''.) A presentist would specify that when each of the times in the interval was present, entities or events existed at this time, and at this time alone.

This translation still accounts for the tense contents of the sentence in terms of operators. Yet, it requires an operator that is different from the ones used by Prior to account for tense in language (i.e. 'it was the case that' and 'it will be the case that'). These two operators alone, and their various iterations, would not fully capture the tense element of all tense sentences.

Arguably, the most significant challenge to operator presentism relates to the translation of tensed sentences which feature double indexing (Hornstein, 1993, 142-144). Operator Presentism claims that the tensed contents of tensed sentences in natural language are determined by tensed operators operating on present tense sentences. Yet, given certain examples, it is clear

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[1] In English: 'It was the case that for some definite time *t* and for some definite x, x is a rainy dawn at *t*, or it was the case that for some definite time *t1* and for some definite y, y is a rainy dawn at *t1*, or it was the case that for some definite time *tn* and for some definite z, z is a rainy dawn at *tn*….

that tense in natural language is not generated by the application of tensed operators to present tense sentences.

Consider the sentence 'Peter said that Mary will arrive today.'. Given operator presentism, the sentence has the tensed operator 'it was the case that', operating upon the present tense sentence 'Peter says that Mary will arrive today.'. Symbolically, this can be written as:

P [∃!x ∃t: 'P' (x,t) & 'says Mary will arrive today'(x, t)]

where 'P' represents 'is Peter'.[1] The operator P would bind everything to the past at time t. According to this translation, Peter was saying that Mary will arrive on the day in which he uttered or tokened the sentence at t. Yet, this is clearly not what is meant be the natural language sentence 'Peter said that Mary will arrive today.'. The time of Mary's arrival indicated by this natural language sentence is a time during the day when the sentence is token or uttered, rather than a time during the day when Peter spoke. A translation of 'Peter said that Mary will arrive today' that comprises of only tensed operators does not fully capture this feature of this past tensed sentence.[2]

Given such examples, it is highly doubtful whether tense in natural language can be accounted for in terms of tensed operators operating on present tense sentences, as argued by operator presentism. Default presentism should not use this response to address the criticism to presentism discussed in this chapter. The final sections of the chapter lay out a more convenient line of defence - one that refers to the same Later-Wittgenstenian approach from which default presentism itself originates.

5.4. The later Wittgensteinian response

This chapter discusses whether the ontological commitments of sentences like 'Napoleon was the First Emperor of France.' render versions of presentism – including default presentism - untenable. The chapter presented two presentist solutions to this difficulty. Fundamentalist presentism addresses the issue from a meta-metaphysical perspective, claiming that the issue only

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[1] In words: 'It was the case that for a definite x and for time t, x is Peter at t, and x at t says 'Mary will arrive today'.

[2] Representing the logical form of the sentence as 'P [∃t ∃!x: 'is Peter' (x) & 'says F [∃$t1$: 'Mary arrives at $t1$']' (x,t)] & $t \neq t1$' would not capture what is meant by the natural sentence either. (In words: It was the case that for some time t and for a definite x, x is Peter and x says at t that it will be the case that for some time $t1$ Mary arrives at $t1$.') This translation implies that Mary will arrive at a future time $t1$, whereby the future time $t1$ is later than t. This translation does not indicate that the time $t1$ when Mary arrives is a time on the same day when the sentence 'Peter said that Mary will arrive today' is tokened or uttered.

arises because of a misinterpretation of metaphysics itself (5.2). The versions of fundamentalist presentism considered in the previous sections argue that even if 'Napoleon was the First Emperor of France.' is ontologically committed to the existence of the former leader, this should not affect presentism as such. The fundamental entities that ground all other entities (the Schaffer-inspired version): fundamental facts describable by sentences involving the Reality Operator (the Fine-inspired version): fundamental facts concerning structure (the Sider-inspired version); only exist or obtain in the present. Though two version of fundamentalist presentism effectively counter the criticism to presentism considered in this chapter, fundamentalist presentism renounces to one of the most engaging features of presentism, its intuitiveness. Moreover, fundamentalist presentism seems to be incompatible with default presentism, which is the version of presentism that the thesis expounds.

Conversely, operator presentism addresses the criticism relating to the ontological commitments of sentences like 'Napoleon was the First Emperor of France.' through semantics. It argues that the challenges encountered by presentism only arise because the syntactical structure of 'Napoleon was the First Emperor of France.' is misrepresented by omitting tense operators from formal translations. These operators account for the tensed nature of tense sentences. Translations containing such operators demonstrate that 'Napoleon was the First Emperor of France.' is not ontologically committed to the world containing the former leader, but to it having contained Napoleon at some time before the sentence is tokened or uttered. This is consistent with presentism (5.3). However, operator presentism faces numerous challenges regarding whether tense in natural language can really be accounted for by tensed operators. The thesis argues that in light of the difficulties generated by these challenges, default presentism should not use operator presentism as a response to the criticism to presentism that is being considered in this chapter. Instead it suggests a response that follows by adopting a Later-Wittgenstenian approach to the issue of the ontological commitments of sentences like 'Napoleon was the First Emperor of France.'. This is spelled out in the rest of the chapter.

In contrast to fundamentalist presentism, a later Wittgenteinian defence of default presentism against the charge that 'Napoleon was the first Emperor of the French' is ontologically committed to the existence of the former leader does not refute this claim on meta-metaphysical grounds. Wittgenstein tends to consider meta-metaphysical issues as nonsense. However, the later Wittgensteinian approach should not dismiss the issue of ontological commitments of a sentence as a senseless metaphysical concern. As stated in the introduction and in chapter 3, the later Wittgenstein admits that the use of certain linguistic expressions implies that the world contains

certain entities, and that these entities exist in determinate ways. This is relevant to the philosophical method he champions in his later work: describing features of the typical of the linguistic expressions one is considering in the language games and contexts where these are typically employed. Thus, the typical use of 'The cat of is the mat.', in the language-games where the spatial arrangement of objects in everyday life is discussed, presumes that the world contains entities identified as cats and mats, and that these are or can be related to one another in determinate ways. Hence, the issue of whether or not the sentence 'Napoleon was the First Emperor of France.' implies that the world contains Napoleon himself, is one that may be legtimiately considered. It is not an issue that ought to be dismissed outright.

The Later Wittgensteinian approach to establishing the ontological commitments of a sentence would not regiment the sentence in predicate logic. (This would require interpreting the terms making up the sentence according to definite theories and mapping them in terms of objects, relations, properties, quantifiers or operators.) To determine what a sentence asserts or implies regarding the contents of the world, the Later-Wittgensteinian approach suggests describing the typical use of a sentence in the language-games and circumstances where it is usually employed. It considers typical features of use like the purposes interlocutors characteristically have when using the sentence in question, how participants in a language-game judge whether the use of the sentence is correct or not, how a token or utterance of the sentence is verified as true, and similar other features (Wittgenstein, 1980, p. 112). It also considers the hinge-assumptions on which the language-games where the sentence in question is used rest. It is by studying such features of the typical use of a sentence - instead of unearthing its logical form - that this approach determines what the sentence would imply or suggest regarding the world and its contents.

Since a sentence may have different uses in different language-games, its ontological commitments would be relative to the typical use/s it may have in the different language-game/s where it is normally employed. 'Jack Smith is the current President of the United States.' has one typical use and definite ontological commitments in the language-game where current affairs are discussed. Here this sentence is typically used to provide information about the individual, the office of president, American politics, and for similar purposes. Its truth is assessed through browsing the Internet, listening to news bulletins, reading the newspapers, phoning the White House, and other means. The typical use of the sentence in this language-game implies that the world contains entities of a particular kind (human beings) and certain offices (President of the United States). More specifically, the typical use of 'Jack Smith is the current President of the United States.' in the language-game presupposes that the world contains a human being named

'Jack Smith' and that he occupies a certain position as President of the United States.

'Jack Smith is the current President of the United States' may have another typical use and different ontological commitments in the language-game involved in literature. (For instance, in relation to a particular novel that includes a character called Jack Smith, who is the current President of the United States in the narrative.) Here, the sentence is typically used to provide information about a character in a novel. Its truth is not determined by phoning the White House, reading newspapers, or watching news bulletins. Instead, the ontological commitments of the sentence are established by reading the novel in question, to assess whether it contains lines referring to a Jack Smith who in the novel is the President of the US. The typical use of the sentence then, does not presuppose that the world contains a person named Jack Smith who occupies a certain office. It only presupposes the existence of copies of the novel that include certain lines or sentences describing a particular character.

Even the ontological commitments of 'Napoleon was the First Emperor of France.' are established by observing how the sentence is typically used in language-games and in situations where it is typically employed. Participants to the language-games where people engage in historical discussions or where they debate French politics, typically use 'Napoleon was the First Emperor of France.' to convey information about a past individual who occupied a particular office, about French rulers, and for similar reasons. The truth of this sentence is corroborated by searching archives, reading historical volumes, and studying artefacts from Napoleon's time. These help determine whether the world contained a particular individual named Napoleon, whether he occupied a certain office, and whether anyone else occupied the office before him.[1] The typical use of 'Napoleon was the First Emperor of France.' in these language-games does not require Napoleon to be part of the world when the sentence is tokened or uttered. It only requires that he was part of the world at a time before the token or utterance is produced. Therefore, the ontological commitments of 'Napoleon was the First Emperor of France.' are consistent with default presentism. The criticism to presentism addressed in this chapter would be unwarranted. The differences between this later-Wittgensteinian retort, and the two retorts considered earlier are further elaborated in the section that follows.

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[1] The processes of retrieving, verifying, corroborating and dismissing records and evidence in this language-game is based on a number of hinge assumptions, such as the assumption that while there may be tampering with evidence and documents, these do not come into being out of nothing. If a document is found, it is also assumed to have been left behind by human beings and not some intelligent alien species.

5.4.i. The distinguishing features of the Later Wittgensteinian response

One might object that the Later Wittgensteinian response presented in the previous section does not differ sufficiently from operator presentism which was laid out in 5.3. Like operator presentism, it does not address the issue concerning the ontological commitment of sentences like 'Napoleon was the First Emperor of France.' and its compatibility with presentism in meta-metaphysical terms. Moreover, like operator presentism, the Later-Wittgensteinian approach holds that Napoleon and outposts on Mars are simply not part of the world, rather than belonging to a non-fundamental realm of entities or facts.

The main difference between a later Wittgensteinian approach and operator presentism seems to relate to their respective methods of representing the ontological commitments of sentences. As such, operator presentism:

a)   determines the ontological commitments of a sentence by translating it through predicate logic, using symbols representing objects, properties, relations, quantifiers and operators. This requires interpreting the terms making up the object sentence according to particular theories.

b)   adopts a rigid model of accounting for tenses, inspired by Prior. It contends that the syntactic structure or logical form of any past or future tensed sentence has tense operators operating on present tensed sentences.

The later Wittgensteinian approach on the other hand, rejects both of these points. The difference might appear slight. Yet, as will be evident in the rest of the section, it has important implications.

Contrary to b), a later Wittgensteinian approach refuses to adopt a single method whereby any tensed sentence is rigidly interpreted or streamlined according to one model. Instead it would describe how various tensed sentences are typically used in the different language-games and circumstances where they are normally employed: illustrating how the various uses of different tensed sentences resemble and differ from each other, the distinctive rules that govern these different uses, and how different tensed sentences manage to convey their tensed contents in light of such rule-governed uses. It would also describe the different ways in which the correctness of the use of various tensed sentences is established. Through this it would determine what the uses

of different tensed sentences imply or suggest regarding the contents of the world. It would therefore not assume that all tensed sentences share a similar logical form that can be streamlined according to a single pattern. (It should be noted that the difficulties operator presentism faced in relation to sentences like 'Peter said Mary will arrive today.' and 'There were many rainy in the past.' stem from the claim that the tensed contents of all tensed sentences can be accounted form exclusively in terms of the tensed operators postulated by Prior.)

Contrary to a), it does not determine what a sentence is implying or asserting regarding the content of the world by translating the sentence and mapping its constituents according to predicate logic. Instead, it determines the ontological commitments a sentence has relative to its employment in the language-games where it is employed, by describing its typical use(s) in these language-games.[1] This second difference makes the Later-Wittgensteinian approach to determining the ontological commitments of a sentence less theory-laden than operator presentism. This is illustrated through an example in the following paragraph that does not relate to time. (The implications of this for certain sentences that were considered to be troublesome for Operator Presentism – sentences like 'Churchill was taller than Napoleon.' – will be illustrated in the final part of the section.)

Consider the sentence 'Blue is a good colour for a carpet.'. If the ontological commitments of sentences are unravelled by translating the sentence through predicate logic, the sentence will have different ontological commitments depending on how one interprets the terms it contains. If 'blue' is interpreted as a word representing a real and abstract property which may be instantiated by particular concrete entities, the sentence would have one set of ontological commitments. It would be committed to the existence of carpets and to the property 'blue'. If 'blue' is understood in nominalist terms, the sentence would only be committed to the existence of blue carpets.

The Later Wittgensteinian approach to determining the ontological commitments of 'Blue is a good colour for a carpet.' on the other hand, would not require interpreting each term of the sentence according to some particular theory. One would limit herself to assessing what is presupposed by the typical use of the sentence in the language-game/s where it is normally employed: surveying how the sentence is typically employed in language-games like the one where carpet vendors, clients, interior designers, etc. negotiate the sales of carpets or discuss how to furnish a house. One would note that here the sentence is typically used to indicate what type of

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[1] As stated in 5.4, it would describe the purposes language users typically have when employing the sentence, the rules governing the use of the sentence in the(se) language-game(s), how one verifies whether what is said by the sentence obtains, and the hinge-assumptions on which the language-game/s where the sentence is used rest(s).

carpet one should purchase, show what is popular regarding people's choices of carpets, denote which type of carpet fits certain interior design patterns, and similar purposes. The typical use/s of the sentence in these language-games and situations, presupposes only that the world contains a certain type of entity, namely carpets in this case. It does not presuppose that the terms 'blue', 'good' and the other terms that feature in the sentence should be understood in some way rather than another.[1]

This might suggest that the Later Wittgensteinian manner of drawing the ontological commitments of 'Blue is a good colour for a carpet.' is quietly and implicitly committed only to the existence of carpets, and hence to implicitly denying the existence of abstract entities. Such a consequence would make this approach theory-laden, while claiming not to be so. This however is not the case. The sentence 'Blue is a good colour for a carpet.' is only committed to the existence of carpets, given its typical use. This typical use does not presuppose that the world contains abstract properties like 'blue' or 'good' which some carpets instantiate. Yet, it does not imply that there is no such abstract property either. Determining the ontological commitments of 'Blue is a good colour for a carpet.' in a Later Wittgensteinian manner, does not presume or exclude anything regarding whether terms like 'blue' or 'good' stand for a real and abstract property, or not.

Obviously, there are later Wittgensteinian perspectives one could uphold regarding the nature of colours, properties like good, and numbers. The typical use of sentences like 'Colours would (not) exist even if there were no objects.' in certain language-games might suggest that there are definite commitments regarding the nature of colours. However, someone who wants to determine the ontological commitments of 'Blue is a good colour for a carpet.' should only focus

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[1] The sentence 'Blue is a good colour for a carpet.' is ontologically committed to the existence of carpets, even if the person tokening or uttering it is a mereological nihilist engaged in the carpet business, who by 'carpet' does not mean an object but a number of ontological simples arranged carpet-wise. While admittedly this person only intends to use 'Blue is a good colour for a carpet'. as a figure of speech and not with the intention of indicating entities which he believes are part of the world, his use of this sentence in this language-game is still ontologically committed to the existence of carpets. This is because the ontological commitments of a sentence relative to its use in a language-game are based on the typical uses of the sentence in that language-game, not the atypical iterations. The mereological nihilist who uses this sentence not to describe a feature of the entities he presumes are part of the world but as a figure of speech, would be using the sentence atypically. He would be using it in a manner that is fundamentally different from the typical use the sentence has in the language-game involved in carpet business. (This typical use is determined by communities of language users engaged in the language-game, not by the intentions of specific individuals.) Given that his use is atypical, the use of 'Blue is a good colour for a carpet.' by the nihilist carpet vendor in this language-game, does not imply that the sentence is not ontologically committed to carpets when used by such an individual in this language-game. (In *Remarks on the Philosophy of Psychology*, Wittgenstein refers to a similar situation regarding an idealist who does not believe in the external world or in the existence of objects like a table and chair. He notes that this; 'convinced idealist … will [still] teach his children the word 'chair' after all, for of course he wants to teach them to do this and that, e.g. to fetch a chair' (Wittgenstein, 1998a, p. 64). His use of the words 'chair' and 'table' with his children, would thus still be committed to the existence of chairs).

on the typical use of this sentence and need not delve into these issues. She is not required to engage with related questions and problems about theories of qualities, properties or relations.

With regards to these features of the Later-Wittgensteinian approach to determining the ontological commitments of sentences enable it to avoid the issues which operator presentism faces in relation to sentences like 'Churchill was taller than Napoleon.'. To determine the ontological commitments of this sentence from a Later-Wittgensteinian perspective, one need not translate it in predicate logic and map it over numbers, relations or predicates (which then one would interpret according to definite theories). Instead one should enquire and describe:

i)   how the sentence is typically used?

ii)   what this use implies or asserts regarding the contents of the world?

The typical use of 'Churchill was taller than Napoleon.' presupposes and implies that the two individuals existed before the sentence was uttered or tokened, and that these individuals had certain physical characteristics when they were part of the world. The use of the sentence is also committed to existence of records of the heights of the two individuals, and to the practice of of comparing these figures. The truth of the sentence implies that there is an existing record of Churchill's and Napoleon's respective height.[1] It would imply that the number measuring the height of Churchill is larger than that measuring the height of Napoleon. whether one should consider numbers of abstract entities or not, is irrelevant to determining the ontological commitments of the sentence.

Therefore, the typical use of this sentence is not ontologically committed to the world containing Churchill and Napoleon, or to them being related to each other. It is perfectly consistent with the world having that contained Napoleon at one time, and Churchill coming into existence at a later time when Napoleon had already gone out of the world. It does not require 'tall' to be interpreted as a relation, a term that features in predicates like 'taller than Napoleon', or an adjective representing a characteristic. The typical use of the sentence is also not committed to any particular understanding of relations, properties, predicates or numbers.

5.5. Conclusion

This chapter discussed whether sentences like 'Napoleon was the First Emperor of France.' are

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[1] This is also in line with the later Wittgensteinian account of truth statements about past entities or events (see chapter 7).

ontologically committed to the existence of past entities such as the former leader himself. This would suggest that presentism – including default presentism - is false and cannot be drawn upon to refute McTaggart's conclusion. This chapter also considered two presentist responses. Fundamentalist presentism maintains that even if the sentence is committed to the existence of Napoleon, this should not affect presentism, since metaphysics has to do with the fundamental entities or facts. Even if Napoleon exists, he does not exist fundamentally. His existence is not a fundamental fact. The different versions of fundamentalist presentism considered in this chapter assert that the fundamental entities grounding all other entities: the fundamental facts described through sentences involving the Reality operator: the fundamental facts that concern structure: all exist or obtain in the present. Two versions of fundamentalist presentism provide a satisfactory response to the issue raised in this chapter. However, unlike standard presentism, fundamentalist presentism is counterintuitive. Moreover, it is incompatible with the version of presentism that is espoused in the thesis, i.e. default presentism.

Operator presentism argues that the issue related to the sentence 'Napoleon was the first Emperor of France.' only arises because the logical form of this sentence is misinterpreted. Following Prior, it maintains that the logical form of this sentence contains tense operators, which are omitted from the aforementioned criticism. However, the exclusive reliance of operator presentism on Priorian tense logic has a certain disadvantage, owing to difficulties in sustaining the claim that tense is exclusively determined by tensed operators operating on present tense sentences, as suggested by Prior. Default presentism should not use this approach to rebut the criticism to presentism being considered in this chapter.

Finally, a later Wittgensteinian approach was also considered. This approach identifies the ontological commitments of 'Napoleon was the First Emperor of France.' by focusing on the typical use of the sentence in the language-games where it is typically employed. It notes that the typical use of 'Napoleon was the First Emperor of France.' is not committed to the world containing Napoleon, but to the world having contained him. This is consistent with default presentism.

The following two chapters discuss whether the truth of the sentence 'Napoleon was the first Emperor of France.' requires the world to contain the former leader himself.

Chapter 6 – Truth and Presentism

6 Introduction

The major criticism that is levelled against presentism relates to the truth of sentences about events or entities that do not exist or occur in the present. The claim is frequently made that sentences about past entities or events like 'Napoleon was the First Emperor of France.' can only be true if the world contains entities like the former leader. This seems to be implied by theories such as Truth-making and 'Truth Supervenes on Being'. These theories are discussed in sections 6.1 and 6.2. The claim has frequently been made by a number of philosophers that the problems presentism faces regarding the truth of such sentences rules out presentist responses to McTaggart's argument (see Mozersky, 2016).[1] If this criticism is sound, default presentism would be an untenable response to McTaggart's argument.

It seems that a presentist – including someone who would uphold default presentism - is required to explain how the world contains only present events or objects, and yet it is possible to have true sentences about past and future entities and events. As in the previous chapters, some of the responses provided by presentist thinkers in mainstream literature are elicited (6.3). If any of these responses is reliable, then the thesis would need to consider whether it is compatible with default presentism, so that it can be used to rebut the criticism being in considered in the chapter. However, the thesis will indicate an objection that may be raised against these accounts which these cannot successfully deflect. This suggests that none of the presentist responses considered in this chapter ought to be used to defend default presentism against the criticism based on truth.

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[1] One might think that this issue is the same as the one discussed in the previous chapter. If 'Napoleon was the First Emperor of France.' is ontologically committed to Napoleon and to him instantiating the property 'being First Emperor of France' and is true, it would seem that it is obvious that Napoleon instantiating the property 'being First Emperor of France' is what accounts for the truth of the sentence. Yet, the two issues are actually different, at least if ontological commitments are established in Quinean manner - i.e. translating sentences in terms of predicate logic - and not in terms envisaged by philosophers like Cameron - where the ontological commitments of a sentence are those entities which would make the sentence true. (In Cameron's own words; 'What are the ontological commitments of a theory? For Quine, it is those things that must be said to lie within the domain of the quantifiers of the sentences … I hold that the ontological commitments of a theory are just those things that must exist to make true the sentences of that theory.' See Cameron, 2010a, p. 4.) This is evident if one considers a sentence like 'All murder is evil.' and supposes that this sentence is made true by some physical characteristics of human beings. Streamlining the sentence in predicate logic, will produce sentences like

'$\forall x: murder(x) \longrightarrow evil(x)$.'

(In everday English: 'For all x, if x is an act of murder, then x is evil.'.) If by the ontological commitments of the sentence one understands the entities that account for the truth of a sentence, the entities that account for the truth of sentences like 'Murder is evil.' (in this case humans having certain characteristics) would not be indicated by the formal sentence '$\forall x: murder(x) \longrightarrow evil(x)$.'.

The following chapter then, provides a later Wittgensteinian response to this criticism. This response is both compatible with default presentism, and does not suffer from the short-comings of the responses laid out in 6.3.

6.1 Truth-making

It is obvious and trivial that the sentence 'Fido is grey.' is true if and only if the world contains the entity Fido, and Fido has a certain colour (grey). This is not controversial. Truth-making however, would claim that there is a more; 'substantive way in which truth depends on the world or on things' (Merricks, 2001, p. xiii). Not merely there would be a trivial correlation between the truth-bearer - whatever is true[1] - which is expressed by the sentence 'Fido is grey.', and the existence of some entity – the truth-maker. This truth-bearer would be true by virtue of the mere existence of this entity. Truth-makers and truth-bearers would be related to each other by the relation 'making true' (Armstrong, 2004, p. 9).

Truth-making maintains that this is the case for all true truth-bearers, not just the one expressed by the sentence 'Fido is grey.'. Truth-making then, upholds 'Truth-maker Maximalism': the claim that for any true truth-bearer, there is; 'some portion of reality' (Armstrong, 2004, p. 5) - its truth-maker - that makes the truth-bearer true via the truth-making relation between them. In this sense, there are no 'brute truths', meaning no truth-bearers that are true without there being some entity that makes them true in virtue of the relation 'making tree' between them (Cameron, 2008a, p. 410).[2]

The relation 'being true' which obtains between truth-makers and true truth-bearers is a necessary relation. In any world where truth-maker and truth-bearer exist, the two cannot not be related one to the other via the relation 'making true'. Suppose that in a world *w* true tokens or utterances of 'It is now spring.' can be produced only when true tokens or utterances of 'The apples are red.' can also be produced. Undoubtedly, in *w* there is a correlation between the truth of 'It is now spring.' and apples becoming red. Yet, if there are worlds where 'It is now spring.' is true, but where there are no apples, or where this truth-bearer is true when apples become brown, the relation between the truth-bearer and red apples would not be a necessary relation. Apples

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[1] Various candidates have been put forward as truth-bearers: propositions, beliefs, sentence-types, and tokens or utterances of sentences.

[2] The thesis refers to a truth-maker in singular terms, but some truth-bearers can have more than one truth-maker. Truth-makers involving Fido, Obama, or this pen may make true the truth-bearer expressed by the sentence 'Something exists.'. A truth-maker involving Aristotle and the property 'being a Greek philosopher' on the other hand, may make true a number of truth-bearers, like the truth-bearers expressed by the sentences 'A Greek philosopher exists.' and 'Aristotle is a philosopher.'.

becoming red would not be the truth-makers (or a constituent of the truth-maker) of the truth-bearer expressed by 'It is now Spring.'. If on the other hand, the truth-maker of the truth-bearer expressed by 'Fido is grey.' is a particular entity involving grey Fido, there can be no world where the truth-bearer 'Fido is grey.' exists and is true, but where the entity involving grey Fido (and hence grey Fido himself) is not part of that world (see Armstrong, 2004, p. 9).[1]

The entities that can be truth-makers have to have certain features. These are discussed in the section that follows.

6.1.i Truth-makers

As stated in 6.1., Truth-making holds that any true truth-bearer is true in virtue of some entity - the truth-maker - to which it is related by the relation 'making true'. An entity can be a truth-maker only if it has a number of characteristics. The first characteristic an entity has to have to be the truth-maker of a particular truth-bearer is sufficing to make the latter true. If x is the truth-maker for truth-bearer b, x has to suffice to make b true. If x requires something else to make b true, say another entity y, then $x + y$, not x, would be b's truth-maker. This is the sufficiency condition.

As indicated in the previous section, true truth-bearer and truth makers are related to each other by ties of necessity. For an entity to be the truth-maker of a truth-bearer, it is not enough that there are bonds of necessity between the two: that the entity postulated as truth-maker exists in any world where the truth-bearer is true. Entities that are considered as truth-makers of truth-bearers must also meet a 'relevance condition' in order to be truth-makers. Suppose there are worlds containing truth-bearers and numbers, and assume that truth-bearers about numbers are made true by numbers and their characteristics. In any such world the truth-bearer '2 + 3 = 5.' would exist, and be true. In all these worlds the number 8 would also exist. There is therefore a necessary link between the existence of the number 8 and the truth of '2 + 3 = 5.'. You cannot have a world where the number 8 exists and the truth-bearer in question is false, or where the truth-bearer is true and the number 8 does not exist. Yet, the number 8 is not the truth-maker for the truth-bearer '2 + 3 = 5.'. That the number 8 is not the truth-maker of the truth-bearer in question follows from what is said or represented by the truth-bearer '2 + 3 = 5'. This truth-bearer has to do the numbers 2, 3 and 5 being specifically related to each other in a determinate way, not

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[1] If the truth-maker of a particular truth-bearer is an entity x, and x can be more than one entity (e.g. 'Plato', 'Aristotle' etc. can be truth-makers for truth-bearers expressed by sentences like 'A philosopher exists.'), then you cannot have a world where the truth-bearer in question is true, yet there is no entity of the type one may put in the place-holder indicated by x;

with with the number 8. The existence of the number 8 is in no way related to the truth of 2 and 3 adding up to 5. An entity considered as the truth-maker of a particular truth-bearer then, must not merely be related to the latter by ties of necessity. The entity indicated as the truth-maker for a particular truth-bearer would have to be relevant to the truth of the truth-bearer in light of what the truth-bearer represents (Smith, 1999, 288). This is the relevance condition that entities considered as truth-makers must meet.

Truth-makers are entities. Yet, ordinary entities like this desk or chair cannot be truth-makers. Consider the truth-bearer expressed by 'There is a book on my shelf.'. The existence of a book and of my shelf are not sufficient to make the truth-bearer true. The two could exist, but no book be on the shelf and hence the truth-bearer be false. The entities 'book' and 'my shelf' then, are not the truth-makers of this truth-bearer. They do not suffice to make this truth-bearer true. David Armstrong holds that truth-makers are complex entities which he calls states of affairs. These are made up of concrete particular entities like my book and desk, and abstract properties and/or relations (Armstrong, 2004, pp. 39-48). The truth-maker of the truth-bearer expressed by 'There is a book on my shelf.' would be the state of affairs 'a book lying on my shelf'. This entity would be made up of the book and the shelf (and also a determinate relation), but would be distinct from both objects (Armstrong, 2004, p. 49). Even the truth-maker of the truth-bearer expressed by 'Fido is grey.' would not be the entity Fido as such. (Fido could exist and be red.) It is rather the state of affairs 'Fido being grey': a state of affairs that has Fido and the abstract property 'grey' as constituents.

Other philosophers argue that truth-makers are tropes (see Mulligan, Simons and Smith, 1984, p. 308). Tropes are; 'particular ... instances of a property [e.g. Fido's greyness]' (Campbell, 1997, p. 500), or certain other particulars like events (e.g. Peter's slip), processes (Peter walking down the corridor) or moments (Peter's skidding, a moment in the process of slipping. see Smith, 1999, p. 274). The existence of these tropes depends on the existence of concrete objects like Fido and Peter (see Mulligan, Simons and Smith, 1984, pp. 290-294). If the trope 'Fido's greyness' is the truth-maker of the truth-bearer expressed by the sentence 'Fido is grey', this trope could not exist if there were no Fido. The trope in question exists at (some) times and places in which Fido exists. It would not exist at those times where Fido may have had a different colour, or when Fido is not

part of the world. It would be this trope that would be related to the truth-bearer expressed by 'Fido is grey.' via the truth-making relation. [1]

Entities and/or properties or relations postulated as constituting truth-makers should also respect an 'ontological sensibility condition'. Whether one thinks truth-makers are states of affairs or tropes, these should not require entities or properties that belong to; 'dubious ontologies' (Sider, 2001, p. 40). No entity, property, relation or trope should be postulated *ad hoc*, simply to account for the truth of particular truth-bearers. If truth-makers are states of affairs made up of entities and/or properties or relations, these would be entities and properties or relations it would make sense to believe are part of the world for reasons other than truth-making. Similarly, if one believes truth-makers are tropes, it must be tropes it makes sense to think are part of the world for reasons which are not providing truth-makers for particular truth-bearers.

To resume then:

> A true truth-bearer is made true by an entity, a truth-maker.

> The two would be necessarily related to each other.

> The existence of the truth-maker would suffice to make the truth-bearer in question true.

> What is considered as a truth-maker of a truth-bearer must be relevant in light of what the truth-bearer represents.

> Ordinary entities cannot be truth-makers, though they may constitute these.

> Truth-makers must include entities and/or properties or relations that it makes sense to admit in one's ontology for reasons other than truth-making.

Regarding the truth-bearer expressed by 'Napoleon was the First Emperor of France.', the most obvious truth-maker would be some state of affairs involving Napoleon instantiating the characteristic 'having been First Emperor of France.'/some trope 'having been the First Emperor of France' which Napoleon instantiates. Each possibility requires the existence of Napoleon. Presentism, including default presentism, cannot accept this, since Napoleon does not exist at present. But the truth-bearer expressed by 'Napoleon was the First Emperor of France.' is true

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[1] This chapter does not intend to analyse whether truthmakers are states of affairs or tropes. Instead, it refers to states of affairs and tropes because they are the main contenders proposed by philosophers. It considers what follows for presentism in either case in relation to the truth of 'Napoleon was the First Emperor of France.'.

and, given truth-maker maximalism, it cannot lack a truth-maker. The world would have to contain Napoleon. Default presentism would therefore be false.

6.2. Truth Supervenes on Being

Truth-making then, is the principle that any true truth-bearer is made true by some entity which, merely by existing, makes the truth-bearer in question true via the truth-making relation (6.1). Truth-making however, faces a number of issues. One concerns finding truth-makers for truth-bearers that deny the existence of entities. Take the truth bearer expressed by 'There are no unicorns.'. Given Truth-making, there must be some entity - some state of affairs or some trope - that merely by existing makes this truth-bearer true. It is hard however, to see what the truth-maker of the truth-bearer expressed by 'There are no unicorns.' can be. Another issue concerns general truths. It seems that the truth-maker for 'All ravens are black.' cannot be a state of affair made up of all black ravens, since this state of affairs could exist and the truth-bearer still be false if, in addition to the state of affairs made up by all black ravens, there is a yellow raven. Nor can the truth-maker of 'All ravens are black.' be some trope, since tropes are by definition particulars that individuals instantiate. These issues are a matter of debate both between philosophers who uphold Truth-making, and between them and others who do not uphold Truth-making. Some philosophers who uphold Truth-making (e.g. Mellor, 2003, p. 213; Smith, 1999, pp. 285-286) address these issues by holding that not all true truth-bearers have truth-makers: that some truth-bearers are true despite there being no truth-makers that make them true. This would imply renouncing to Truth-Making maximalism, even though it is Truth-Making maximalism that renders Truth-making distinctive from obvious claims, like the claim that the truth of 'Fido is grey.' depends on the existence of grey Fido. Others attempt to supply truth-makers for truth-bearers that concern general truths and for those that assert the non-existence of things (see Armstrong, 2004, p. 74; Martin, 1996, p. 59). However, some other philosophers who themselves adopt Truth-making like George Molnar deny that any of these solutions is adequate (see Molnar, 2000, pp. 75-84). The thesis does not consider whether these difficulties are fatal to Truth-making or not. It notes that there are such issues and that these might induce someone who wants to hold to the intuition that truth depends non-trivially on what exists, to seek different approach to truth than Truth-making. One such approach is Truth Supervenes on Being.

Something, call it x, supervenes on something else, call it y, if any change in x necessarily requires that there be a change in y. Truth Supervenes on Being holds that truth consists of a; 'relation between some supervenient property' of truth-bearer - the property truth - and 'a

subvenient base' (Molnar, 2000, p. 82). The truth of true truth-bearers would supervene on what exists in a world given the entities that are part of the world and the relations or properties these instantiate (see Lewis, 2003, p. 25). The entities and properties or relations in question would be the type of entities and properties it makes sense to believe the world contains (see Bigelow, 1988, pp. 130-133; Lewis, 1992, pp. 215-219).

If truth-bearer **b1** is true in world W1 but false in W2, then W1 and W2 must differ either in the entities they contain, or in the relations or properties that are instantiated by (at least) some of these entities. If the truth-bearer expressed by 'Polar bears are white.' is true in world W1 but not in world W2, then world W1 and W2 differ either in respect of (some of) the entities they contain, or in (some) the characteristics or relations that (at least some of these entities) instantiate. For instance, W2 may contain no polar bears or these polar bears would not be white. Contrariwise, if worlds W1 and W3 are exactly alike in relation to the entities that exist in each and to the properties or relations these instantiate, **b1** cannot be true in one world but false in the other.

Despite their differences, Truth-making and Truth Supervenes on Being share a number of features in the way in which they characterise truth. Both hold that there are no brute truths that; 'float free of the world' (Sider, 2001, p. 36). Both agree that the truth of true truth-bearers depends on what exists. Both hold that true truth-bearers are related to that in virtue of which they are true - a truth-maker in the case of Truth-making, or the world in the case of Truth Supervenes on Being – by relations of necessity[1]. Given what exists, necessarily, some truth-bearers are true and others false (Armstrong, 2004, p. 5). Both accept that; 'there can't be a difference in truth without a corresponding difference in what exists to explain the difference in truth' (Cameron, 2010, p. 1). If a truth-bearer **b** is true in one world but false in another, there must be some difference in what exists (or in how what exists, exists) in these worlds to account for the different truth-values of **b**.

Philosophers who accept Truth-Supervenes on Being tend to point to two advantages this theory has over Truth-making. The first is that Truth Supervenes on Being requires only ordinary entities like my book and my shelf, (and that these be related in a certain way), to account for the truth of true truth-bearers like the one expressed by sentences like 'There is a book on my shelf.'

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[1] If a particular truth-bearer **p** is true in a world because it supervenes on what exists in that world, there cannot be an identical world where the truth-bearer **p** also exists, but where **p** is false.

It does not require further entities like the states of affair 'a book on my shelf', or that one refers to tropes.

Lewis also claims that Truth Supervenes on Being avoids the issues Truth-making faces in relation to truth-bearers that deny the existence of things and those that concern general truths. Unlike Truth-making, Truth Supervenes on Being does not hold that every true truth-bearer has a (at least one) particular entity (the truth-maker) that would make it true. The truth-bearer expressed by 'There are no unicorns.' is true in world W but not in world W1 not because in W there is some entity that makes the truth-bearer true in W, but because the two worlds would differ regarding the entities these contain and/or the properties or relations these entities instantiate. Nothing else is needed to account for the difference in the truth-value of this truth-bearer in these different worlds (see Lewis, 2001, pp. 606-610). Similarly, 'All swans are white.' is true in world W1 (but not in the actual world), because it supervenes on the entities W1 contains.

Truth Supervenes on Being however, faces a number of issues. One might hold that Truth Supervenes on Being is merely making a trivial point by holding that two worlds that differ in the entities they contain and the properties or relations these instantiate will differ in the truths that obtain in both. Take the truth-bearer expressed by the sentence 'The Eiffel Tower exists.'. This is true in the actual world and in all worlds that are like ours in terms of the entities these contain and the properties relations they would instantiate. This is obvious but also trivial. It fails to indicate how the truth of this truth-bearer substantially depends on what exists. The truth-bearer expressed by 'The Eiffel Tower exists.' is also true in world W4 which is like the actual world in every respect except for one; in W4 New York is the US capital. If Truth-Supervenes on Being merely holds that the truth-value of a truth-bearer cannot differ in two worlds that are alike in respect to the entities that exist in each and to the properties or relations they instantiate however, it will fail to account for this feature of truth-bearers. It will fail to account for the fact that the same truth-bearer might be true even in worlds that differ in respect to some of the entities they contain and the properties or relations these entities instantiate because these differences are not relevant to the truth of the truth-bearer in question.

Philosophers who uphold Truth Supervenes on Being may fine-tune their account of how the truth of true truth-bearers depends on what exists by holding that the truth-bearer expressed by 'The Eiffel Tower exists.' is true in any world that contains what the truth-bearer is; 'appropriately about' (Merricks, 2007, p. 90), i.e. the Eiffel Tower. The truth of this truth-bearer would only supervene on the entity/ies the truth-bearer is about. If one limits the supervenience base to the entities the truth-bearer is appropriately about though, some of the difficulties encountered by

Truth-making remerge. In relation to truth-bearers like those expressed by 'There are penguins.' one may indicate a set of entities on which the truth of this truth-bearer would supervene, namely the group of penguins. In relation to truth-bearers expressed by sentences like 'There are no unicorns.', however one cannot indicate some entity or set of entities which the sentence is appropriately about, on which its truth would supervene. If one claims that 'There are no unicorns.' is true in our world because it supervenes on all entities that make up the world, and one the relations or properties these instantiate, difficulties crop up. Call the set of all entities that are part of the world and the relations or properties these instantiate s1. The truth of the truth-bearer expressed by 'There are no unicorns.' would then supervene on a relevant set of entities, namely set s1. Suppose however that there is a world W0 which contains all entities the actual world contains, and that these instantiate all properties or relations they instantiate in the actual world. W0 then contains s1. W0 though, also contains a unicorn. If in our world 'There are no unicorns.' is true because it supervenes on s1, this truth-bearer would have to be true in W0 as well, since even W0 contains s1. Yet, in W0 this truth-bearer is false. Someone who upholds Truth Supervenes on Being would then have to include something else in the ontology of our world apart from s1 that would exclude the existence of unicorns: something like a property 'these being all the entities there are'. But then, ordinary entities like my desk, Obama and the properties these instantiate, will no longer suffice to account for the truth of some truth-bearers. Truth Supervenes on Being would no longer require ordinary entities in one's ontology, which is one of the attractive features of Truth Supervenes on Being.

This chapter will not discuss whether Truth Supervenes on Being may be successfully reformulated in order to address these challenges. Instead it focuses on what are the consequences to presentism, including default presentism, if one adopts this approach to truth. Truth Supervenes on Being seems to be incompatible with these versions of presentism (see Sider, 2001, p. 367; Tooley, 1997, pp. 234-4; Lewis, 1992, p.219). Consider the truth-bearer expressed by 'Napoleon had two eggs for breakfast on the 15th June 1804.'. Suppose that there are two worlds that are exactly alike regarding the present entities they contain, and the properties and/or relations these instantiate. These would be all the entities these worlds would contain given presentism. The two worlds would have to be alike regarding the truth values of the truth-bearers that are true in both. Now suppose that only in one world the truth-bearer expressed by 'Napoleon had two eggs for breakfast on the 15th June 1804.' is true (in this world Napoleon had two eggs for breakfast on that day). In the other world it is false since here Napoleon ate something else. Given that the two worlds are alike in terms of the objects they contain at present and the properties or relations these objects presently instantiate, and assuming presentism, the truths that obtain in one should also

obtain in the other. Yet, in one world 'Napoleon had two eggs for breakfast on the 15th June 1804.' is true, while in the other it is false. Since the truths that obtain in both worlds are different, the two worlds cannot really be alike regarding the entities they contain, and the properties or relations these instantiate. The two worlds must contain entities that exist at other times apart from those that exist at present. It would because of these other entities that exists at times other than the present that the truth of the sentence supervenes on what exists in one world but not in the other. Presentism, including default presentism, would be false.

6.3. Presentist responses – properties that the world instantiates

Truth-making asserts that there are truth-makers that make truth-bearers true simply by their existence (6.1). Truth Supervenes on Being argues that the truth of true truth-bearers supervene on what exists, in light of the entities contained within the world and the relations or properties these instantiate (6.2). Both theories raise concerns regarding presentism and the truth of sentence 'Napoleon was the First Emperor of France'. The truth of this truth-bearer seems to require the existence of the former leader.

The first two presentist responses considered in this thesis contend that presentists can supply truth-makers or a supervenience base for the truth of 'Napoleon was the First Emperor of France.' by postulating monadic properties that the world would presently instantiate. John Bigelow holds that there are Lucretian properties, like the property: 'being such as to have had Napoleon as First Emperor of France', which the world would instantiate (see Bigelow, 1996). The world instantiating this property would be the truth-maker for the truth-bearer expressed by 'Napoleon was the First Emperor of France.'/the truth of this truth-bearer would supervene on what exists given that the world instantiates this property. This is consistent with most versions of presentism, including default presentism.

Sider calls Lucretian properties 'suspicious' because they do not affect how entities that are presently part of the world or the world itself exist at present, which is the only time at which any being would exist given presentism (see Sider, 2001, p. 41). This is because an entity instantiating a property normally requires that, at the time at which the entity instantiates the property, this entity exists in some particular way or another. Socrates instantiating now the property 'wisdom' implies that now Socrates exists in a definite way, i.e. being wise. It implies that he would exist in a different if way he had to shed this property and instantiate a different one. Lucretian properties on the other hand, make: 'a difference [only] to how things were' (Tallant and Ingram, 2012, p. 265). The world instantiating the Lucretian property: 'having had Napoleon as the First Emperor

of France' now is; 'not a matter of what the world itself is like' (See Sider, 2001, p. 41) at present, which is the only time at which the world would exist given presentism. The world would exist in the same way it does if it were to instantiate the Lucretian property: 'having had Joseph as the First Emperor of France'.

Postulating Lucretian properties the world would instantiate to account for the truth of a true truth-bearer is something that may also be repeated for any true truth-bearer. This would make Truth-making and Truth Supervenes on Being trivial. The truth-bearer expressed by 'Murder is evil.' might be said to be true because the world instantiates the Lucretian property: 'being such that Murder is evil'. There may also be a Lucretian property: 'being such that Boris Johnson is the Prime Minister', the instantiation of which by the world – rather the Johnson's existence and him occupying a certain office- would suffice to make true/provide a supervenience base for the truth-bearer expressed by 'Boris Johnson is the Prime Minister.'. This seems to defeat the purpose of both Truth-making and Truth Supervenes on Being, which is to substantiate the intuition that what is true depends non-trivially on entities it makes sense to think are part of the world, and on the properties or relations these entities instantiate.

In 'Truth-makers for Presentists' Cameron indicates another type of property that would account for the truth of truth-bearers expressed by sentences like 'Napoleon was the First Emperor of France.', distributional properties.[1] Distributional properties determine; 'how a thing is across some region' (Cameron, 2015, p. 137), and were introduced by Josh Parsons. The properties Parsons mentions determine how the thing that instantiates them exists across a region of space, as well as at each sub-region of this area. Consider a table which is black in some areas and red, green and blue in others. The table is black, red, green and blue at these various points because the property 'tartan' is distributed along its surface. The instantiation of this property would determine both that the table is coloured tartan across its surface and that it has the various colours it has at its different sub-regions and parts along its surface.

Parsons claims that distributional properties are fundamental, i.e. that they cannot be reduced to a conjunction of non-distributional properties. Take once again the property tartan. Tartan would not be fundamental if it were reducible to a conjunction of non-distributional properties: if, with regards the previously mentioned table, the colour of its surface emerges out of a combination of coloured; 'point-sized objects…spatially arranged in the right way' (Parsons, 2006,

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[1]Cameron formulates his argument in terms of Truth-making. It can however be reworked in terms of Truth Supervenes on Being.

p. 6).[1] If tartan were a property that emerges out of such an arrangement of coloured point-sized objects, there would be no world where the property is not reducible such a conjunction of coloured point-sized objects. This would have the implication that in all worlds, matter and material objects are made out of unextended points (Parsons, 2006, p. 7). But this is false. There are worlds where material objects are made up of gunk. In these worlds, each part of any object would be extended (otherwise that part would be a point) and divisible (Parsons, 2006, p. 8). If any of these parts of an object is coloured, each part of such object would instantiate the colour properties it instantiates distributionally. In such a world, the table instantiating the distributional property tartan is also made up of gunk and not of unextended points. The tartan of the table would not arise out of a conjunction of unextended points, since there would be no such unextended points. The distributional property tartan is therefore not reducible to a conjunction of non-distributional properties. It is fundamental.

Apart from colour, Parsons claims that there are also distributional properties that concern heat and density. Something that is hot at one end and cold at the other instantiates the distributional property: 'being hot at one end and cold at the other'. Something that has a particular uniform density of x kg/m3 across it, instantiates a distributional property that establishes this density uniformly across it.

Cameron asserts that there are similar distributional properties that concern how a thing exists in time. These properties determine how an entity is at various times throughout its existence (Cameron, 2010, p. 66). These distributional properties are instantiated at present, which is the only time at which anything exits given presentism. Their instantiation however, determines not merely how the thing that instantiates them exists now, but also how it was/will be when other times at which it existed or will exist, were or will be present (Cameron, 2015, p. 136). Such distributional properties would have the form: 'being born in 1968... being born in Hawaii... being five feet tall at time t... being six feet tall at time t1…'. Suppose this distributional property is instantiated by Obama. As anything that is part of the world, Obama would exist only at present. Yet, there will be other times at which he existed or at which will exist. The distributional property Obama instantiates, determines how he exists at all these times (Cameron, 2010, pp. 70-72). It is in virtue of Obama instantiating (now) this distributional property that he is now a retired President, that he was born in Hawaii in 1968, and that he will be in Tokyo next month. The instantiation of such a property by an entity provides truth-makers or a supervenience base for all

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[1] These objects would be unextended and point-sized; 'so small [that] they [cannot] have distributional properties' (Parsons, 2006, pp. 5-6).

true truth-bearers concerning how the entity was, is, and will be. A truth-bearer referring to a past fact or event concerning Obama, (an event or fact which that is no longer part of the world given presentism), is made true by Obama instantiating the distributional property he instantiates now/supervenes on what exists in this world given that Obama now instantiates this distributional property.[1]

Regarding truth-bearers that concern entities that are no longer part of the world, Cameron refers to distributional properties the world instantiates, which determine all events that occur in it through time. The world instantiating such properties would make true all true truth-bearers concerning how the world was, is and will be. These include the truth-bearer expressed by the sentence 'Napoleon was the First Emperor of France.'. If one accepts Truth Supervenes on Being, the truth of the truth-bearer expressed by this sentence would supervene on what exists given that the world instantiates such a distributional property. This is compatible with most version of presentism, including default presentism.[2]

Since Cameron's distributional properties also determine how something exists at present and not merely how the thing was or will be, they do make a difference to how an entity is at present, which is the only time at which things exist given presentism. In this respect they fare better than Bigelow's Lucretian properties. It is dubious however, whether either Bigelow's or Cameron's accounts of the truth of sentence about past entities/evetns are consistent with the requirements set by either Truth-making or Truth-Supervenes on being. A *desideratum* of both theories is that no entities or properties are postulated *ad hoc*, simply to account for the truth of certain truth-bearers. Truth-making demands truth-makers that require entities and/or properties or relations it makes sense to admit in one's ontology for reason other than truth-making (the Ontological Sensibility Condition). Similarly, Truth Supervenes on Being holds that the truth of true truth-bearers supervenes on what exists in a world given the entities it makes sense to think the world contains and the properties or relations these instantiate for reason that are unrelated to the truth of true truth-bearers. Both Bigelow and Cameron on the other hand, seem to postulate their properties simply to provide truth-makers/a supervenience base for truth-bearers about the past (see Ingthorsson, 2016, p. 132). Even if Cameron's distributional properties do not determine merely how the world was, but also how it is and will be, it is highly dubious whether one would

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[1] Following Parsons, Cameron claims that distributional properties that concern time are also fundamental, primitive, and; 'cannot be broken up into simpler components' (Cameron, 2010, p. 70). A distributional property that concerns how a thing exists across time therefore, is not a conjunction of properties like: 'being born in 1968', 'being born in Hawaii', 'being five feet at time t', etc. (Cameron, 2011, p. 68).

[2] Cameron later abandons presentism. In *The Moving Spotlight* he upholds a tensed eternalist view.

postulate such properties unless it were to provide truth-makers/a supervenience base for true truth-bearers about the past or future. This seems inconsistent with the gist of either Truth-making or Truth-Supervenes on Being.[1]

A more important objection may be raised against both Bigelow's and Cameron's account of the truth of truth-bearers expressed by sentences like 'Napoleon was the First Emperor of France.': an objection which holds that these accounts may imply certain absurd consequences.[2] This objection is discussed in 6.4. Before the chapter considers another presentist response to the problems raised to presentism by the truth of sentences like 'Napoleon was the First Emperor of France.' - Bourne's erastzer account.

6.3.i. Presentist Responses: erastazer presentism

Bourne seeks to provide truth-makers/a superveniece base for truth-bearers about the past or the future by postulating an *erastazer* time series.[3] While the objects the world contains exist only at present, the present time would not be the only time there is. The world would also contain other times. These times are not constituted by things like this table, that chair, or Obama, or by events, but, amongst other things, by propositions. Propositions are for Bourne; 'primitive abstract objects' (Bourne, 2006, p. 52) which can describe things or situations that may exist in the world, and are capable of being true or false. Propositions can be of two types, embedded and unembedded. Unembedded propositions are propositions that contain the present tense operator or no operator at all. Examples are <Peter is drunk> and <Peter is now drunk>. Embedded propositions are propositions that contain past or future tense operators applied to an unembedded present tensed proposition. The proposition <It was the case that <Napoleon is now the First Emperor of France>>, would be an embedded proposition containing the operator 'It was the case that' operating upon the unembedded proposition <Napoleon is now the First Emperor of France>. (This is the proposition expressed in everyday language by the sentence 'Napoleon was the First Emperor of France.')

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[1] If one is an eternalist on the other hand, the state of affairs 'Napoleon being First Emperor of France' or the trope 'being first Emperor of France' instantiated by Napoleon, would exist at some past times. These would exist or obtain for reasons which are not related to the truth of the truth-bearer expressed by 'Napoleon was the First Emperor of France.'. They would not be postulated *ad hoc*. They would nonetheless serve as truth-makers/provide a supervenience base for the truth of this truth-bearer.

[2] This would suggest that it is inadvisable for default presentism to use either account to defend itself against the objection being considered in this chapter.

[3] Bourne is a presentist who subscribes to truthmaking (Bourne, 2006, p. 5). However, his account can be expressed in line with Truth Supervenes on Being.

For Bourne, time is made up of consistent sets of unembedded propositions,[1] along with a particular date (for instance, '18th of June 1815')[2] and the relation of this date to other times (for instance, 18th of June 1815 being earlier than 19th of June 1815, and later than 15th of June 1815. See Bourne, 2006, p. 64). The set of propositions<The Battle of Waterloo is going on>, <The soil is wet in Belgium>, <King George is praying for victory>, and all unembedded propositions that were true on the 18th of June 1815 - which together provide a complete and exhaustive description of the world at that time - along with the date '18th June 1815', and its relation to other times, constitute the time '18th June 1815' (Bourne, 2006, p. 54). Some unembedded propositions that are part of this particular set can figure in other times. For instance the proposition <it is raining> figures in many times.

The present time would be the only set of unembedded propositions that is 'concretely realized'. By this Bourne means that the propositions making up this set would describe all things, events, and happenings that are part of the world (Bourne, 2006, p. 54). The set of propositions containing <I am at my computer writing>, <Boris Johnson is the Prime Minister>, <There is fighting in Afghanistan> and other propositions which - together with the date '26th September 2021' and the position of this time in relation to other times - constitute the time '26th September 2021', would be concretely realized. This is because 26th September of 2021 is the present, and the world contains me writing at the computer, Boris Johnson at 10 Downing Street, fighting in Afghanistan, and all other events or entities represented by the propositions making up this time.[3] On the other hand, the set of propositions containing <The Battle of Waterloo is going on>, <The soil is wet in Belgium>, <King George is now praying for Victory>, and other proposition which, together with the date '18th June 1815' and the position of this time in relation to others, constitute the time '18th June 1815', would not be concretely realized. Most of the things, happenings and events these propositions describe are no longer part of the world. Both times however, are part of the time series.

The *erastaz* series that constitutes time contains various past times and the present arranged one after the other by what Bourne calls 'E-relations'. These relations are similar to the 'earlier than' relation that according to McTaggart link events along the B-series (Bourne, 2006, p. 54). E-relations however, are; 'not genuine earlier than relation[s] since [they do] not relate ... spatial-temporal objects' (see Bourne, 2006, p. 54). They do not relate objects like myself, the table, and Napoleon that would exist at different times given eternalism. What these E-relations would relate

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[1] For instance, sets that do not contain both the propositions <It is now rainy> and <It is now sunny>.
[2] Bourne does not specify what a date is.
[3] The time when this part of the thesis was being written.

are 'times', i.e. sets of abstract entities like propositions, dates, and location of times. Not all sets made up of propositions, dates and positions of times, are part of the time series, but only those that are E-related to the present time - the only time that is concretely realized (see Bourne, 2006, p. 57). The past times that are E-related to the present are those sets that contain unembedded propositions that were all true when the dates these times contain were present. Consider two possible sets of consistent propositions, together with the date '18th June 1815' and the position of this set in relation to other times (the date and position would be the same in both sets). Only one such time would be E-related to the present. Suppose one of these times is made up of the set of propositions <The Battle of Waterloo is going on>, <The soil is wet in Belgium>, <King George is now praying for Victory>...etc., together with the date '18th June 1815' and the location of this date. All these propositions were true when the 18th of June was present. Together, all these propositions describe the world exhaustively at this time. This set would be part of the *erastaz* series. Consider another time made up of the set of propositions <The Battle of Waterloo is going on>, <The soil is wet in Belgium>, <William the Conqueror is now praying for Victory> etc., together with the date '18th June 1815', and the location of this time in relation to others. Only some of these propositions were true on the 18th June 1815. This set would not be E-related to the present time. It would not be part of the time series.

The future is conceived by Bourne as a series of branching times, E-related to the present. It consists of series of sets of propositions together with dates, and the positions of these dates in relation to other times. One of these branches will eventually become the present. The propositions that make up this time will be concretely realized when it becomes present. The other branches will be detached from the trunk and go out of existence.

For Bourne, this *erastaz* time series accounts for the truth of true truth-bearers about the present, past and future (Bourne, 22006, p. 55).

- True truth-bearers about presently existing entities are made true by the entities which they are about existing at present in some particular way/supervene on what exists because the entities they are about exist in a particular way in the present time. The truth-bearer expressed by 'Boris Johnson is the Prime Minister of the UK.' is made true by a truth-maker containing Johnson/supervenes upon what exists, given the existence of Boris Johnson, and him occupying a particular office.

- True truth-bearers about past entities like the one expressed by 'Napoleon was the First Emperor of France.', are made true by a number of times containing the unembedded

proposition <Napoleon is the First Emperor of France> being E-related to the present time. In terms of Truth Supervenes on Being, the truth of 'Napoleon was the First Emperor of France.' would supervene upon what exists given the inclusion of the un-embedded proposition <Napoleon is the First Emperor of France> in one or more past times that are E-related to the present time (see Bourne, 2006, p. 51). Contrariwise, the absence of the proposition <William the Conqueror is the First Emperor of France> from any set of propositions that is E-related to the present time, makes the truth-bearer expressed by the sentence 'William the Conqueror was the First Emperor of France.' false/implies the falsity of this truth-bearer.

- True truth-bearers that are about the future, e.g. the truth-bearer expressed by 'There will be a dawn tomorrow.', are true in virtue of the presence of the unembedded present tensed proposition <There is a dawn now> in all future sets of propositions that are E-related to the present time, and which contain tomorrow's date. The presence of such a proposition in these branches would constitute the truth-maker for/provide a supervenience base for the truth of 'There will be a dawn tomorrow.'.

The truth of propositions that concern the past and the future then, do not require the world to contain concrete entities that do not exist at present.

Bourne's account seems to suffer from the following shortcomings. If one accounts for truth in terms of Truth-making - the theory of truth Bourne actually adopts - his truth-makers fail to meet the Relevance Condition mentioned above (6.1.i), whereby would-be truth-makers must be entities that are relevant to the truth of their truth-bearer in light of what these truth-bearers represent. As David Sanson and Ben Caplan highlight, what seems relevant to the truth of the truth bearer expressed by 'Napoleon was the First Emperor of France.' is the entity Napoleon and the property 'being the Frist Emperor of France' (Sanson and Caplan, 2010, p. 35). For Bourne however, it is abstract times linked together through a relation, rather than Napoleon and the property 'being First Emperor of France', that feature in the truth-maker.

If Bourne's *erastaz* presentism is re-worked in terms of Truth Supervenes on Being, his account of the truth of 'Napoleon was the First Emperor of France.' would forfeit one of the attractive features of this theory of truth: that Truth Supervenes on Being requires only ordinary entities in its account of truth. Times made up of propositions and dates are not ordinary entities. More importantly Bourne's account (just like Bigelow's and Cameron's) also falls foul of the objection that is discussed in the following section.

6.4. The All-powerful being objection

This chapter introduced Truthmaking (6.1) and Truth Supervenes on Being (6.2), followed by the criticism to presentism based on these theories of truth. This holds that a sentence like 'Napoleon was the First Emperor of France.' is made true by a truth-maker that includes Napoleon/supervenes on what exists only if Napoleon is part of the world. Presentism, including default presentism, would be inacceptable. In the previous sections (6.3 – 6.3ii) presentist responses by Bigelow, Cameron and Bourne were provided. These attempt to provide truth-makers/a supervenience base for the truth-bearer expressed by 'Napoleon was the First Emperor of France.' in terms that do not require Napoleon, but only entities that exist at present.

Bigelow's, Cameron's and Bourne's separate accounts suggest that the world instantiating properties, or abstract propositions connected to one another by E-relations, suffice to provide truth-makers or a supervenience base for the truth of sentences like 'Napoleon was the First Emperor of France.'. This section argues that these accounts are susceptible to a major criticism, owing to their interpretation of the truth of sentences about past entities or events. This argument includes the following presuppositions:

a)   the presentist claim that the world contains only what exists in the present.

b)   the intuitive claim that the truthbearer expressed by 'Napoleon was the First Emperor of the France.' is true in a world if and only if at some earlier time(s) t1, the world in question contained Napoleon and he was the first Emperor of the French. This applies to all truthbearers which concern past entities and events.

The objection is worked out first in relation to accounts that seek to provide truth-makers/a superveneince base for true truth-bearers about the past in terms of the world instantiating properties. It considers Bigelow's account, which refers to Lucretian properties, to make the exposition as clear as possible. However, the objection can also be adapted to Cameron's account in terms of distributional properties.

Given Bigelow's account, there is a Lucretian property 'having had Napoleon as the First Emperor of France'. The world instantiating this property suffices to make 'Napoleon was the First Emperor of France.' true or to provide a supervenience base in what exists for the truth of this truth-bearer, even if at present the world does not contain Napoleon. This holds for any truth-bearer about the past. Now suppose that there is an All-powerful being that can create things or bring about any situation, provided these are possible, generate no contradiction and are not

illogical. This being can make things instantiate properties provided this does not imply a contradiction or illogical situations. It seems that it is possible that this being can create the world 1 minute ago, and make it instantiate the Lucretian property 'having had Napoleon as the first Emperor of France' even if the world just came into being, and never contained Napoleon. It can do the same for all true truth-bearers that are about entities or events that supposedly existed more than 1 minute ago.[1] It seems that one cannot rule out a possible world where this happens. Given Bigelow's account, this would suffice to make true/provide a supervenience base in what exists for the truth of the truth-bearer expressed by 'Napoleon was the First Emperor of France.', as well as for similar truth-bearers about supposedly past entities that never existed in the world in question. But this absurd and violates presupposition b). Hence, attempts to provide a truth-maker/supervenience base for 'Napoleon was the First Emperor of France.' and other true truth-bearers about the past that require only the world instantiating properties at present are unsatisfactory. Presentism, including default presentism, should not recur to such accounts to address the criticism that is being discussed in this chapter.

In response it can be suggested that it this argument against Bigelow's and Cameron's accounts that is not convincing. As previously stated, the All-powerful being cannot bring about something that is not possible, contradictory or incoherent. There are potential limits to what properties the All-powerful being can cause the world to instantiate. The claim might be made that there cannot be possible worlds which instantiate the Lucretian property 'having had Napoleon as the first Emperor of France.' or properties concerning other past events or entities, unless the world contained Napoleon (and he was the first Emperor of the French), or the other past events or entities relating to the Lucretian properties the world instantiates. The following two paragraphs would indicate the reason why such a world cannot exist.

Consider first the truth-bearers expressed by the sentences 'All elephants are blue.', 'Some balls are concomitantly green all over and red all over.' and '7 + 5 = 9.'. These truth-bearers are all false in our world. Assuming Truth-maker or Truth Supervenes on Being, the three would be false in our world because in our world there would be no truth-maker for any/none would supervene on what exists, since there are no blue elephants in our world, 7 and 5 add up to 12 not 9, and nothing can be both green all-over and red all-over.[2] Similarly, the truth-bearers expressed by 'There are no artic penguins.' would be true in our world because it has a truth-maker/it

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[1] In Cameron's version, it would be a distributional property which contains 'having had Napoleon as First Emperor of France' amongst its features. This being would make the world instantiate this distributional property now, even though the world never contained Napoleon.

[2] Indeed, the second and third sentences are false in all possible worlds.

supervenes on what exists. Suppose however that there are properties: 'being such that all elephants that exist are blue', 'being such that there are balls that are concomitantly green all over and red all over', 'being such that $7 + 5 = 9$', and 'being such that there are artic penguins'. Our world instantiating the first three properties would seemingly make true/provide a supervenience base for the truth of 'All elephants are blue.', 'Some balls are concomitantly green all over and is red all over.' and '$7 + 5 = 9$'. Our world instantiating the fourth property would imply that the sentence 'There are no artic penguins.' is false since there would be a truth-maker/supervenience base for the negation of this sentence. Yet, it is reasonable to believe that this All-powerful being cannot make a world instantiate any property whatsoever. It is reasonable to hold that his being cannot make our world instantiate the properties 'being such that all elephants that exist are blue', and 'being such that there are artic penguins'. This is because this world contains elephants that are not blue, and does not contain artic penguins. Likewise, the All-powerful being cannot make our world instantiate such properties as 'being such that $7 + 5 = 9$' and 'being such that there are balls that are green all over and red all over' either. This is because in no world you can have anything that is green all over and red all over, and given the properties of the numbers 7, 5 and 9.[1] A world that instantiates the properties: 'being such that all elephants are blue' and 'being such that there are artic penguins', but which contains grey elephants and no artic penguins is therefore an impossible world. Similarly, there can be no worlds that instantiate the properties 'being such that $7 + 5 = 9$' and 'being such that there are balls that are green all over and red all over'.

It can be suggested that, by parity of reasoning, since this All-powerful being cannot have a world instantiate any property whatsoever, this being cannot make a world instantiate the Lucretian property 'having had Napoleon as the first Emperor of France' if Napoleon or the entities/events in question never existed. (Similarly, it cannot make the world instantiate Lucretian properties about any past events and entities that were never part of the world.) So if a world instantiates a Lucretian property like 'having had Napoleon as the first Emperor of France', Napoleon, or the event or entity the property concerns, must have been part of that world. In the case of Napoleon, he must also have been the first Emperor of France.[2]

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[1] On the other hand, there would be nothing to prevent the All-powerful being from making our world instantiate properties like 'being such that there are grey elephants', 'being such that $7 + 5 = 12$', 'being such as to contain Antarctic penguins' and 'being such as to contain balls that are green all-over'. This is because of the existence in our worlds of grey elephants, penguins in the South Pole and balls that are green all-over, and also because pf the properties of the numbers 7, 5 and 12.

[2] In the case of Cameron, the being in question cannot make our world instantiate now a distributional property which has 'having had Napoleon as the First Emperor of France' amongst its features, if in our world Napoleon never existed and/or he never was the First Emperor of France.

However, this retort is not really effective. Assume that the All-powerful being cannot really make our world instantiate properties like: 'being such that all elephants are blue', 'being such that $7 + 5 = 9$', 'being such as to contain artic penguins' and 'being such that there are balls that are concomitantly green all over and red all over'. This being would be prevented from making our world instantiate these properties in virtue of how the actual world, or of how entities in the world, exist. There would be something in existence that would stop the All-powerful being from having our world instantiate properties like 'being such that all elephants are blue', 'being such that $7 + 5 = 9$', 'being such as to contain artic penguins' and 'being such that there are balls that green all over and are also red all over'. The existence of an arctic circle without penguins and of elephants that are not blue in our world, as well as the properties of the numbers 5, 7 and 9, and the impossibility of an object like a ball being concomitantly green all-over and red all-over in any world, would act as blockers: i.e. situations or entities that prevent an All-powerful being from making the world instantiate a particular Lucretian property.

In the case of truth-bearers that are about past entities and of Lucretian properties on the other hand, there would be nothing in a world at present - the only time at which anything exists given presentism - to stop this being from making this world instantiate the property 'having had Napoleon as the First Emperor of France' even if the world in question never contained Napoleon. There would be no blockers that stop an All-powerful being from making a world instantiate Lucretian properties that concern beings and events that were never part of the world in question. This is evident if one considers the following.

Consider two worlds w and w1 which are identical in terms of the entities they contain and the characteristics or relations instantiated by these entities in the present - the only time at which entities exist, according to presentism. Consider the Lucretian property: 'having had Napoleon as the first Emperor of the French'. In world w, Napoleon was the first Emperor of the French. In w1, which is identical to world w regarding presently existing entities, there was however no first Emperor of the French (despite containing literature that refers to this position, monuments, etc.). This world was only created by the all-powerful being a moment ago.

World *w* would instantiate the Lucretian property: 'having had Napoleon as the first Emperor of France'. This would make true/provide a supervenience base for the truth of 'Napoleon was the First Emperor of France.'. However, given that *w1* is exactly like world *w* in terms of the entities that exist at present[1] and the properties or relations they instantiate, there

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[1] All entities that there would be, given presentism.

would be nothing – no blockers - that would stop the All-powerful being from making this world instantiate the Lucretian property 'having had Napoleon as the first Emperor of France'. Since *w* can instantiate this Lucretian property, *w1* can instantiate this Lucretian property as well. 'Napoleon was the First Emperor of France.' would therefore be true in *w1*, even if in this world Napoleon never existed and never was the First Emperor of France. But this is absurd. This would also hold for other Lucretian properties that concern other events or entities that would supposedly have existed in the past in both worlds, but which existed only in *w*.

The same objection can be raised against Bourne's *erastazer* time series. As stated, Bourne accounts for the truth of 'Napoleon was the First Emperor of France.' in terms of times (sets of unembedded present tensed propositions, together with a date and the location of the time along the time series) being E-related to the present time (Bourne, 2006, p. 54). So the truth-bearer expressed by 'Napoleon was the First Emperor of France.' is made true by/supervenes on what exists given the existence of times containing the proposition <Napoleon is now the First Emperor of France>, and these times being E-related to the present time. Bourne does stipulate that unembedded present-tensed propositions contained in past times that are E-related to the present were true when the dates they contain were present. Their truth-makers/supervenience base at the time would therefore have required the entities they are about to have existed when these times where present. (Thus, the truth-maker/supervenience base of <Napoleon is now the First Emperor of France> when this proposition was true, would have required Napoleon, implying that the world in question did contain Napoleon at the time.) Yet, that it is these times (i.e. those containing sets of propositions that represent how the world actually was when the dates they contain were present) that are E-related to the present time in a particular world, and not some other times (e.g. sets containing unembedded propositions referring to events or facts which never occurred or obtained, like the proposition<Joseph is now the First Emperor of France>), would be a brute fact. There would be nothing at present in the world in question - the only time at which anything exists given presentism - that determines that it is times that contain only propositions that were true when the dates these sets of propositions contain were present (rather than some other times that also include the same time and unembedded propositions that were false) that are E-related to the present time.

Assume that there is this All-powerful being that can E-relate sets of propositions. There would be nothing in the world in question that would prevent this being from E-relating to the present time, some times containing unembedded propositions that are consistent with one another, but which were not true when the date they contain was present (see Mozersky, 2008, p.

136). Suppose the All-powerful being wants to make a number of times containing dates between 1804 and 1815 and the unembedded proposition <Napoleon is now the First Emperor of France>, E-related to the present time in a world that never contained Napoleon. There would be nothing in existence which would stop this being from doing so. This would make <Napoleon was the First Emperor of France> true/provide a supervenience base for the truth of <Napoleon was the First Emperor of France> in that world, even if Napoleon never existed in this world. The possibility of the All-powerful being making it the case that 'Napoleon was the First Emperor of France.' is true in a world that did not contain Napoleon therefore, cannot be ruled out given Bourne's *erastaz* presentism. *Mutatis muntandis* the All-powerful being might create a world 1 minute ago, but concoct times made up of sets of propositions, dates and positions of the sets in question, in a manner that would imply that many truth-bearers that describe a myriad of past events that were never part of this world, are true. Bourne's account cannot rule this out.[1]

The three presentist accounts of the truth-bearer expressed by 'Napoleon was the First Emperor of France.' considered in this chapter then, cannot eliminate the possibility of an All-powerful being creating a world 1 minute ago, and making it the case that this truth-bearer is true, even if the world in question never contained Napoleon. They cannot rule out that there is such a possible world. Default presentism should not use these accounts of truth to rebut the criticism to presentism that is discussed in this chapter.

6.5. Conclusion

The criticism to presentism considered in this chapter holds that true sentences like 'Napoleon was the First Emperor of France.' require a truth-maker/supervenience base that contains Napoleon. Since most versions of presentism – including default presentism - hold that Napoleon is not part of the world, this notion of time would be mistaken.

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[1] Bourne, does refer to the possibility of the universe springing into being a short while ago, and claims that if this had to be the case, E-relation: 'simply [would] not hold' (Bourne, 2006, p. 57). There would be no E-relations linking the time containing the date '1812' and the proposition <Napoleon was the First Emperor of France> (amongst others), to the set of unembedded propositions that are true now, if the world was created a minute ago. Given however that a proposition like <Napoleon was the First Emperor of France> is true, the world cannot have sprung into being a short-while ago (say, 1 minute ago).

Bourne's argument however, is not really sound. There seems to be nothing that may block the All-powerful being from creating sets containing dates and propositions about entities that were never part of the world (or indeed of any world). Following this, all the All-powerful being needs to do is make it the case that a past-tensed proposition about an event/entity that was never part of a world is true in that world, is to E-relate such a set of propositions to the set of unembedded propositions that are true at present. Given how Bourne characterizes E-relations – i.e. relations that do not link concrete entities but abstract entities like propositions – there is nothing to imply that by their very nature these can only E-relate unembedded propositions that were true in a particular world.

The chapter considered three responses, by Bigelow, Cameron and Bourne. These claim that presentists can provide truth-makers for/a supervenience base for the truth of 'Napoleon was the First Emperor of France.' that do not require past entities like Napoleon to be part of the world. The final section of the chapter argues that the truth-makers/supervenience base these accounts indicate is inadequate because of certain absurd consequences it may imply.

Chapter 7 – Wittgenstein and Truth

7 Introduction

The previous chapter presented the argument against presentism based on truth. The argument has the following structure:

i)   Premise 1: the Sentence 'Napoleon was the First Emperor of France.' is true.

ii)   Premise 2: the truth-maker of 'Napoleon was the First Emperor of France.' requires Napoleon/the truth of 'Napoleon was the First Emperor of France.' supervenes on what exists only if the world contains Napoleon.

iii)   From i and ii: the truth of 'Napoleon was the First Emperor of France.' requires that Napoleon be part of the world.

Conclusion (From iii): since Napoleon has to be part of the world, presentism – including default presentism - is false and cannot be used to defeat McTaggart's argument.

The same chapter considered three responses from presentist literature by Bigelow, Cameron and Bourne. These denied Premise 2, presenting accounts whereby one can have truth-makers for the sentence in question/the sentence supervenes on what exists even if the world does not contain Napoleon. The three accounts however, were unable to rule out the absurd possibility of an All-powerful being making the sentence true/making it the case that the sentence supervenes on what exists, even if Napoleon never existed. Because of this, default presentism should not refer to any such account to counter the criticism based on truth.

This chapter showcases a Later-Wittgesntenian response to the criticism against presentism based on truth. This response denies that the truth of 'Napoleon was the First Emperor of France.' requires the world to contain Napoleon, and follows from how Wittgenstein characterizes truth in is later philosophy. Specifically, it follows from how he characterizes the truth of sentences like 'Napoleon was the First Emperor of France.'.

Three undertakings are attempted in the chapter. First a later Wittgensteinian account of

truth is provided (7.1). As with other aspects of Wittgenstein's later philosophy considered earlier, the chapter will not be arguing for the soundness of the Wittgensteinian account of truth *per se*. It will not present arguments why one should prefer this account of truth ahead of others. It will however consider what follows from this account in relation to the arguments against presentism based on truth.

Section 7.3 argues that, given the later Wittgensteinian characterisation of truth, one can account for the truth of 'Napoleon was the First Emperor of France.' without requiring the world to contain the former leader. This is consistent with default presentism. The chapter also details two consequences regarding the truth of sentences about past events or entities, which stem from the later Wittgensteinian perspective: the rejection of the principle of bivalence and the idea that the past is open in relation to certain sentences (7.3.i).

Finally, the chapter illustrates how the later Wittgensteinian characterisation of the truth sentences like 'Napoleon was the First Emperor of France.' is not susceptible to the all-powerful being objection (7.4 – 7.4.ii).

7.1. Wittgenstein and Truth

In his later philosophy Wittgenstein demonstrates a; 'lack of interest in truth as an independent topic of inquiry' (Williams, 2004, p. 266), relegating it; 'to a minor, non-functional, role' (Dummett, 2014, p. 19). Truth for instance, plays no role in Wittgenstein's account of meaning.[1] Moreover, the Later Wittgenstein does not explicitly adopt a theory of truth. He does not directly address questions like: 'What are truth bearers?' or 'How does truth relate to the world?'. Nonetheless, there are sufficient sparse entries in his later work that allow one to draw what would be a Later-Wittgensteinian account of truth. This account of truth has three core commitments:

i)   the linguistic expressions 'is true' and 'is false' are not predicates comparable to predicates standing for fundamental properties like the predicate 'is charged'.

ii)   the linguistic expression 'is true' or 'is false' serve exclusively to endorse or reject the use of a sentence in determinate language-games and contexts, according to determinate rules and criteria.

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[1] In contrast to theories of meaning like the truth-conditional theory of meaning, where one apprehends the meaning of a sentence by grasping the conditions that would render it true (see Dummett, 2014, p. 15).

iii)   the criteria determining whether the use of 'is true' and 'is false' to endorse a sentence is correct may vary, depending on the sentence in relation to which 'is true/is false' are used and the language-game where they are employed. Some, but not all, of these criteria may be characterized in terms that refer to the entity/event the sentence is about.

Each commitment is explained separately in the following sections.

7.2. The linguistic expressions 'is true' and 'is false' do not stand for properties akin to fundamental properties

For Wittgenstein 'is true' and 'is false' are merely linguistic expressions used in relation to sentences, or tokens or utterances of sentences. Sentences like 'It is true that there are no ghosts.' and 'That Winter begins in November is false.' would merely have the linguistic expressions 'is true' or 'is false' employed in relation to the sentences 'There are no ghosts.' and 'Winter begins in November.'.

The linguistic expressions 'is true' and 'is false' would not be predicates that indicate an; 'objective cut in reality' (Effingham, 2013, p. 62). They would not be akin to predicates that stand for what Lewis calls 'fundamental properties': properties that would feature in any account or theory that describes how in reality the world or entities in the world exist. Take the property expressed by the predicate 'is charged' which features in theories in physics. This property is exemplified by entities like electrons and protons, and requires the electron or proton experiencing a particular type of force. Now suppose that theories of physics feature in accounts of how the world really exists. The predicate 'is charged' would feature in these accounts (see Lewis, 1986, 60). It would therefore stand for a fundamental property.

This is not the case with the predicates 'is true' and 'is false'. These linguistic expressions are rather akin to predicates like 'being a jazz player' predicated of 'Bill Clinton' in the sentence 'Bill Clinton is a jazz player.'. They would express what Lewis calls 'abundant properties': properties an entity exemplifies merely by being the member of a particular set. Thus, Bill Clinton possesses the abundant property 'being a jazz player' merely because he belongs to the set of entities that are jazz players. Obama and Jack Grealish, would not exemplify this property since they are not members of this set. Abundant properties like 'being a jazz player' would not feature in theories or accounts that the describe how the world is in reality. The property 'being a jazz player' would not even feature in accounts describing how in reality entities like Clinton, Grealish and Obama exist.

As with predicates like 'being a jazz player', the use of 'is true' and 'is false' in relation to some sentence would merely indicate that the sentence in question belongs to the set of true sentences or to the set of false sentences. The section that follows illustrates what determines that certain sentences belong to either of these sets.

7.2.i. The linguistic expressions 'is true' and 'is false' serve only to endorse or refute the use of sentences

Sentences that belong to the set of true sentences are those in relation to which 'is true' may be used correctly in some language-games and contexts.[1] False sentences are those in relation to which 'is false' may be used correctly in determinate contexts and language-games (see Wittgenstein, 1995, 136. See also Wright, 2010, p. 211; Grayling, 1988, p. 101; Ellenbogen, 2003, p. XIII). In these language-games and contexts, 'is true' and 'is false' serve solely to endorse or reject the (particular) use of the sentences in relation to which they are employed. For instance if, in the language-game where we discuss things around us in everyday life and in a particular context, 'is true' is used in relation to a token of 'The cat is on the mat.', the use of 'is true' serves only to endorse the use of this particular sentence in this determinate context.

The type endorsement that the use of 'is true' involves is not akin to the type of endorsement implied in stating: 'I endorse what Joe Biden says about climate change rather than what is stated by Donald Trump.'. One would here be merely indicating that she holds that the statements made by Biden about climate change fall in the set of true sentences. My endorsement of Biden through this sentence would be tantamount to saying that what Biden says is true. However, if truth is characterized in terms of endorsement, and the endorsement that the use of 'is true' in relation to a sentence is characterized in terms of truth, the account of truth would be circular and uninformative. In essence, one would be explaining the truth of a sentence in terms of its endorsement (i.e. the sentence is true because it is endorsed). In turn, this endorsement is accounted for in terms of the sentence's truth. (i.e. one would be endorsing the sentence because it falls in the set of true sentences). The reason why the sentence belongs to the set of the true sentences in the first place would still be indeterminate.

The use of 'is true' and 'is false' to endorse the use of a sentence is relatively similar to the use of the linguistic expressions 'proceed' and 'block' by a proof-reader of a newspaper. After

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[1] The linguistic expressions 'is true' and 'is false' need not be used in all language-games. They do not feature in the language-game where 'slab' and 'beam' are used to order people to have things delivered to oneself. They are not used in relation to sentences like 'A slab and a beam.' in this language-game (Wittgenstein, 1995, 272).

going through a page, the proof reader would use 'proceed' to endorse the page: to signal that, given certain standards, the page is fit for printing. Similarly, he would use 'block' to reject a page, deeming it as not suitable for printing. The proof-reader does not reject or endorse a page because he deems it to be true of false. Nor would he reject or endorse a page as fit for printing out of some personal whim. He would recommend or reject a page in light of standards concerning printing, which standards determine certain criteria that make a page fit or unfit for printing. Through his use of these words, the proof reader would be implicitly asserting that the page he is examining meets/fails to meet these criteria. These criteria would include the existence/non-existence of grammatical errors, typos, the correct use of columns, and the distribution of space. If a page meets these criteria, it is fit for printing. The proof-reader should therefore recommend that it be printed through the use of 'proceed'. If not, he should reject the page through the use of 'block'. The existence of such criteria makes it the case that the proof reader can use 'block' and 'proceed' correctly or incorrectly. If he uses 'proceed' when the page contains typos, he would be using 'proceed' incorrectly.

The use of 'is true' and 'is false' in relation to certain sentences in the language-games where these terms are employed is akin to the use of 'block' and 'proceed' in the above example. To use 'is true' in relation to a sentence 'S' in a particular language-game and context, is to endorse the use of 'S' in this circumstance: to indicate that, in light of the purposes why sentences like 'S' are typically used in the language-game and in similar situations, it is correct to use 'S' in this context. To use 'is false' in relation to 'S' in a context and language-game, is to deny and find fault in the use of 'S' in this context.

As with the use of 'block' and 'proceed' - where there are standards and criteria determining when and how these terms should be used in the proof-reader's activity - the use of 'is true' and 'is false' in language-games where these are typically employed abides by certain standards or rules. These rules do not follow from manuals or guidebooks (as might be the case for the proof-reader), but are yardsticks for employing linguistic-expressions within a determinate language-game. They exist because participants to the language-game in various contexts believe themselves bound to use 'is true' or 'false' in specific way/s in certain situations and circumstances (See Hacker, 1986, p. 183).

The rules that govern the use of 'is true' and 'is false' also establish criteria that, in determinate language-games and contexts, render the use of these linguistic expressions correct (See Kenny, 1967, p. 258; Hacker, 1986, p. 310). It is only if 'is true' and 'is false' may be used

correctly in relation to a sentence given definite criteria, that the sentence in question falls in the set of true/false sentences. Wittgenstein's characterisation of truth may thus be spelled out as:

> A sentence 'S' is true iff, in some language-game and circumstances, 'is true' may be used correctly in relation to 'S'. The linguistic expression 'is true' would be used correctly in relation to 'S' because accepted criteria rendering the use of this linguistic in relation to such sentence correct are met.[1]

The rules governing the use of 'is true' and 'is false', and the criteria these establish may vary, depending on the language-game/s and on the sentences in relation to which they are used.

7.2.ii. There are different types of criteria that determine whether the use of 'is true' and 'is false' to endorse a sentence is correct. Some, but not all, require the existence of the entities the sentences are about.

To resume, 'is true' and 'is false' are simply linguistic expressions that, in determinate language-games and situations, can be used in relation to certain sentences to endorse the use of these sentences in the context (7.2.- 7.2.i). The rules governing the use of 'is true' and 'is false' in relation to different sentences and in different language-games and contexts, and the criteria for their correct use, can vary considerably. This can be illustrated by considering the linguistic expression 'is true', and the following descriptive sentences: 'The cat is on the mat.', 'There are no polar bears in Antarctica.', 'Jane is guilty of murder.', and 'Sherlock Holmes wears a Deerstalker.'.

In the language-game where we discuss things around us, 'The cat is on the mat.' is typically used to indicate that a particular cat is related to a particular mat in a certain way. The typical use of this sentence presupposes that this cat and mat are part of the world and are related to one another in this manner. The linguistic-expression 'is true' would be used to endorse the use of this sentence in a particular context: to approve that in a particular situation and context, one uses the sentence to indicate that this is; 'how things are' (Wittgenstein, 1995, p. 52) in relation to some determinate cat and mat. The criteria that render the use of 'is true' in relation to the sentence correct would be the existence of these cat and mat, and the two being related in the way suggested by the sentences. The correct use of 'is true' in relation to the sentence, can therefore be mapped out as:

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[1] The linguistic expression 'being true' then, may be defined as 'being such that, given certain criteria, it is correct to use the linguistic expression 'is true' in relation to some sentence in some language-game and context'.

'is true' is correctly used in relation to 'The cat is on the mat.', iff the cat in question (this is determined by the context) exists, and is related to the mat in the way indicated by the sentence.

The sentence 'There are no polar bears in Antarctica.' is typically used in language-games like the one where people study geography or the one where people discusses fauna, in order to indicate the non-existence of a particular type of animal in this region. The rules that govern the use of 'is true' in relation to such a sentence in this language-game do not establish the existence of any entity as the criterion that renders the use of this linguistic expression in relation to the sentence correct. The rules in question establish the non-existence of a certain type of entity (polar bears) in a particular region as the criterion rendering correct the use of 'is true' in relation to the sentence. The correct use of 'is true' in relation to the 'There are no polar bears in Antarctica.' would thus be mapped out in a way that also refers to entities mentioned in the sentence, albeit requiring their non-existence:

'is true' is used correctly in relation to 'There are no Polar bears in Antarctica.' iff no polar bears exist in the South Pole.

The sentence 'Sherlock Holmes wears a deerstalker.' when employed in the language-game where literature is discussed, is typically used to describe how Holmes appears (in terms of attire) in stories about his character. The rules governing the use of 'is true' in this language-game set the existence of certain lines in Conan Doyle's novels describing the dressing habits of this character as the criterion that renders the use of 'is true' in relation to the sentence correct. (For instance, verses describing Holmes as wearing a deerstalker.) The correct use of 'is true' in relation to the sentence would therefore not be mapped out in terms involving the entity/ies the sentence is about (i.e. Sherlock Holmes). It should rather be characterized as:

'is true' is used correctly in relation to 'Sherlock Holmes wears a deerstalker.' iff Conan Doyle's stories include certain lines and sentences describing Sherlock Holmes as being dressed in a particular way.

The sentence 'Jane is guilty of murder.' would be used in the language-game employed in law court procedures to indicate a person believed to have committed a particular murder. What would render the use of 'is true' correct in relation to the sentence in this context and language-game is the presence of evidence which un-mistakenly indicates that the murder was committed by Jane. This evidence might render the use of 'is true' correct exist even if Jane is no longer part

of the world. Hence:

> 'is true' is used correctly in relation to 'Jane is guilty of murder.' iff evidence exists that unequivocally indicates that Jane committed the murder exists

The examples above indicate the variety that exists in the criteria that render the uses of 'is true' in relation to various sentences correct. In some cases, these require that some entities be part of the world for 'is true' is used correctly in relation to some sentence. In others (as in the case of 'There are no polar bears in Antarctic.') the criteria for the correct use of 'is true' require the non-existence of certain entities, rather than their existence. In some instances, the criteria can be mapped out in a way that refer to the entity the sentence is about. (E.g. in the case of 'The cat is on the mat.' or 'There are on polar bears at the South pole.'.) In others, the criteria that render the use of 'is true' correct would be mapped out in ways that do not requires the entities mentioned in the sentences to be part of the world (e.g. in the case of 'Sherlock Holmes wears a Deerstalker.', which only requires the existence of certain lines in a book). A Later-Wittgensteinian approach to truth would limit itself to surveying and describing these different features of these uses of 'is true' and 'is false' in determinate language-games, noting similarities and variations (see Wittgenstein, 1995, p. 48). It would refrain from producing; 'a single theory' (Wittgenstein, 1930-32, 75) which indicates some feature, or some unique set of features or characteristics, that the different types of criteria determining the correct uses of 'is true' or 'is false' would share (see Misak, 2016, p. 258). The question that arises next is what renders the use of 'is true' in relation to 'Napoleon was the First Emperor of France.' correct.

7.3. The truth of 'Napoleon was the First Emperor of France.' and the argument against presentism

The linguistic expression 'is true' is used in language-games where the sentence 'Napoleon was the First Emperor of France.' is normally employed to endorse the claim the sentence makes: i.e. that the world contained Napoleon and he was the First Emperor of France. The sentence would belong to the set of true sentences if such use is correct. The criteria that in these language-games render the use of 'is true' correct do not include Napoleon himself. They require what participants to these language-game consider to be evidence attesting that the world contained Napoleon, and that he was the first French Emperor (see Misak, 1991, p. 137).

Evidence consists of objects of various types which participants to these language-games use to endorse or refute the contents of sentences about past events or entities. Not any object

from the past may count as evidence, but only those objects that participants to these language-games believe indicate that the contents of these sentences obtained. Take 'Napoleon was the First Emperor of France.' and the language-game where historical events are discussed. Consider the following objects: a parchment proclaiming Napoleon as first French Emperor, the country of France itself, and a stalactite in Bordeaux. Participants to the language-game in question agree that only the first may be used to determine whether what is said by the sentence did or did not obtain. The country of France or stalactites may not be considered as evidence that indicates that what is descrbed by the 'Napoleon was the First Emperor of France.' obtained, even if they were part of the world when Napoleon existed and was Emperor. (They might count as evidence in relation to other sentences like 'France existed in the Middle Ages.' or 'Bordeaux caves contained water.'.)

The objects which may count as evidence in relation to 'Napoleon was the First Emperor of France.' must have certain characteristics in order to render the use of 'is true' in relation to the sentence correct. They have to be 'factive'. By 'factive evidence' one should not understand evidence that is 'consistent with the truth'. This would smuggle the concept of truth in the definition of the conditions that render the use of 'is true' correct, thus implying (contrary to what was indicated previously in the chapter) that there is more to truth than the correct use of the linguistic expression 'is true'. It would also be circular. Truth would be explained in terms of the correct use of 'is true'. The correct use of 'is true' would, in turn, be accounted for in terms of conditions that include truth.

Factive evidence would be constituted by objects and artefacts that, in relation to some sentence about past entities and events, effectively indicate that these events and/or entities were actually part of the world in the past. The objects and artefacts used as evidence need to have certain characteristics in order to be factive: characteristics that relate to what is stated by the sentence. For instance, the characteristics that render objects one may consider as evidence in relation to 'Napoleon was the First Emperor of France.' factive are characteristics like:

i)   dating back to the late 18th and early 19th century France, having been written by eye witnesses (in case of documents), and having been used for specific purposes like registering or commemorating life events (see Haydn, Arhtus and Hunt, 1997, p. 195).

ii)   reproducing, coding or summarising evidence that dates back to the late 18th and 19th century, and had the characteristics mentioned in i).[1]

These are characteristics that refer to past events and entities, but do not require these events and entities to be part of the world. Take the parchment proclaiming Napoleon as the First Emperor of France which exists now. For it to constitute factive evidence rendering the use of 'is true' in relation to 'Napoleon was the First Emperor of France.' correct, it must belong (now) to the set of entities that existed in 1804, and which in 1804 were used to declare Napoleon as First Emperor of the French. This document would have (now) the characteristic 'having been used in 1804 to proclaim Napoleon as the First Emperor of France'.[2] This does not require the world to contain Napoleon.

The correct use of 'is true' in relation to sentences like 'Napoleon was the First Emperor of France.' can therefore be characterised as:

'is true' is used correctly in relation to 'Napoleon was the First Emperor of France.' in the language-games where the sentence is usually employed, iff factive evidence exists indicating that Napoleon was part of the world and that he was the First Emperor of France.[3]

Given this characterisation of the truth of 'Napoleon was the First Emperor of France.' it is obvious why the argument against presentism based on truth would not follow. The argument has this layout:

i)   premise 1: 'Napoleon was the First Emperor of France.' is true.

ii)   premise 2: The truth of 'Napoleon was the First Emperor of France.' requires a truth-maker that requires Napoleon/supervenes on what exists only if Napoleon is part of the world.

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[1] E.g. a manuscript produced in 1840, twenty years after Napoleon's death, which reproduces or summarises a document from 1820 or earlier, or which records a life-event of Napoleon.

[2] The characteristic that an object has to have to be considered factive evidence, would depend on the nature of the object and the past tense sentence. Regarding the parchment and the sentence 'Napoleon was the First Emperor of France.', this would constitute factive evidence if it instantiates characteristics like 'dating back to 1804 and having served to proclaim Napoleon as Emperor'. Something else, say a bust of Napoleon, might constitute factive evidence if it has a different characteristic like the characteristic: 'produced in 1804 to commemorate Napoleon's elevation to First Emperor of the French'.

[3] The use of 'is true' in relation to sentences about past entities and events in these language-games is therefore co-extensional with: 'said of a sentence for which there is factive evidence rendering the use of this linguistic expression in relation to the sentence correct'.

iii)   from i and ii: The truth of 'Napoleon was the Frist Emperor of France.' requires the world to contain Napoleon.

Conclusion: presentism is false(From iii).

The Wittgensteinian account of truth rejects premise 2. A sentence is true only if 'is true' may be used correctly in relation to it. This is consistent with default presentism.

Following Sider, one might object that the Wittgensteinian account of the truth of past tensed sentences 'cheats'. This is because it wants to recognise some truths - in this case truths about the past - but is unwilling to; 'accept an ontology robust enough to bear the weight of the [such] truths' (Sider, 2013, p. 41). For Sider, examples of cheating would include philosophers who postulate *ad hoc* modal properties, like the property 'possibly being blue', to account for the truth of sentences like 'The red ball might be blue.'. This property would be 'irreducibly hypothetical' (Sider, 2013, p. 41) since it has nothing to do with how the object actually exists. It is postulated merely to explain the truth of a true truth-bearer. Regarding philosophy of time, Sider claims that properties presentists tend to postulate to account for truths about the past, like Lucretian properties, are also hypothetical. These do not affect how the world exists at present (the only time at which anything would exist given presentism), and are postulated simply to account for truths about the past (see Sider, 2013, p. 41).

It might be suggested that in the Wittgensteinian account, it is the characteristics that render certain objects factive evidence that cheat. Characteristics like 'having been used in 1804 to proclaim Napoleon as First Emperor of France' would not affect how the parchment exists now, which is the only time at which anything would exist given presentism. It might be thought that in light of this, the Wittgensteinian account of the truth of 'Napoleon was the First Emperor of France.' cheats.

Jonathan Tallant and David Ingram hold that there is nothing wrong if presentists cheat. Presentists need not worry about this. Indeed, any presentist account of truth will inevitably end up cheating no matter how couched. This is because there are; 'no plausible independently natural entities to serve as [what accounts for] truths about the past' (Tallant and Ingram, 2015, p. 340). No one, for instance, would think of postulating Lucretian or distributional properties, unless it were to account for the truth of certain sentences about the past.

Moreover, the instantiation of such properties by presently existing objects depends on events and entities that no-longer exist. Suppose 'Napoleon was the First Emperor of France.' is true in virtue of some entities that exist now and of some properties these entities now instantiate, say a particular Lucretian property that the world instantiates. The world would currently instantiate the Lucretian property by virtue of a past entity or fact that is no longer part of the world: the fact of Napoleon's former existence and his position as emperor. The sentence is therefore ultimately true in virtue of facts that obtained (but no longer obtain): in virtue of how the world was, not of how the world is (Tallant and Ingram, 2015, p. 368).[1]

However, this chapter contends that the later Wittgensteinian account should not concede the accusation of cheating. Unlike Lucretian properties, the characteristics that establish whether evidence is factive are not randomly formulated to account for truths regarding the past. They are rather characteristics which entities like the parchment above are presumed to have pre-theoretically: regardless of any notion of time. They are characteristics that these entities have now owing to the fact that they also existed at previous times. It is uncontroversial that a parchment that exists in 2022, may also have existed in 1804 and served to proclaim Napoleon as Emperor of the French. It is uncontroversial that this parchment will, in 2022, belong to the set of entities that also existed in 1804 and were used then to proclaim Napoleon as First Emperor of France. This set will not be created or assembled *ad hoc* to account for the truth of 'Napoleon was the First Emperor of France.'. It is a set of entities which even eternalists and growing block theorists would admit.[2] It is then uncontroversial that there is such a set of entities in 2022 - the set of enties that also existed in 1804 and were used to proclaim Napoleon 'First Emperor of France' . By being a member of this set, the parchment will (in 2022) have the characteristic: 'having been used in 1804 to proclaim Napoleon as the First Emperor of France'.

What the Wittgensteinian account would admit is that the attempt to explain why the parchment has this characteristic rather than another (say the characteristic 'having been used in

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[1] Tallant and Ingram suggest that presentists do away altogether with such properties. The truth of 'Napoleon was the First Emperor of France.' should instead be accounted for in terms that include the relation 'in virtue of' holding between the sentence and certain facts that obtained in the past, like the fact Napoleon being the First Emperor of France. This relation would be primitive and not require the existence of both *relata* (Tallant and Ingram, 2015, p. 366). It would therefore not require the fact 'Napoleon being the First Emperor of France' to be part of the world. (Tallant and Ingram then, would deny that for two or more entities to be related to each other, these entities have all to be part of the world.)

[2] Eternalists and growing block theorists concede that there are entities that exist (or have temporal parts that exist) both in 1804 and in 2022. In 2022, those objects which also exist in 1804 (or whose temporal parts also exist in 1804) and which had served to declare Napoleon as first Emperor of the French, would belong (in 2022) to a set of entities that also existed in 1804 and served to declare Napoleon as First Emperor of France.

800 to proclaim Charlemagne as Emperor') will end up referring to; 'how things once were' (Sanson and Caplan, 2010, p. 38) rather than to how they are. It would admit that there is nothing in existence now which explains why this parchment belongs to the set of entities that existed in 1804 and served to proclaim Napoleon as the First Emperor of France back then, rather than to some other set.[1] The parchment will have (now) the characteristic 'having been used in 1804 to proclaim Napoleon as First Emperor of France' iff, when 1804 was the present time, it was used to proclaim Napoleon as Emperor of the French.[2] This is the only explanation one can give why the parchment has this characteristic: an explanation in terms of events and/or entities that are no longer part of the world.[3]

7.3.i. Characteristics of the Later Wittgensteinian account of the truth of sentences about the past

In the previous sections, the Later Wittgensteinian account of truth was laid out. This holds that a sentence is true iff, in some language-game and context, the linguistic expression 'is true' may be used correctly in relation to the sentence (7.2). This linguistic expression is used correctly in relation to 'Napoleon was the First Emperor of France.' if factive evidence exists indicating that the world contained the former French Emperor (7.3). This does not require the world to contain Napoleon and is consistent with default presentism, the version of presentism that is expounded in this thesis. This section discusses two characteristics of the later Wittgensteinian account of the truth of sentences about past events and entities. The sections that follow, indicate how this account can rebut the All-powerful being objection discussed in Chapter 6.

A consequence of the Later Wittgensteinian account of the truth of sentences about past

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[1]On the other hand, eternalist and the growing block theorists can explain why it belongs to this set by pointing to another segment of reality - to an event they believe is still part of the world - namely the event 'the writing of the parchment proclaiming Napoleon as First Emperor of the French', which would exist in 1804.

[2] In contrast to Tallant and Ingram's solution, this account refers to events/entities that are no longer part of the world, but does not require the truth-bearer to be related to any past fact these entities/events constitute.

[3] It is important to note that this reference to an event that is no longer part of the world does not boil down to the deflationist theory of truth, wherein the truth of 'Napoleon was the First Emperor of France.' would be characterized as: 'Napoleon was the First Emperor of France.' is true iff Napoleon was the First Emperor of France. In this case, one would be determining the truth of the sentence in terms of how the world was: of entities and objects that are no longer part of the world given presentism. In the Wittgensteinian account on the other hand, how the world was accounts for certain characteristics an object may possess now, like the characteristic 'having been used to proclaim Napoleon as First Emperor of France in 1804'. The parchment instantiating this property now would, in turn, account for the correct use of 'is true' in relation to 'Napoleon was the First Emperor of France.'. Yet, if no such entities like the parchment - or something else that constitutes factive evidence - exists at present, 'Napoleon was the First Emperor of France.' would fail to be true even if Napoleon was the First Emperor of France. (Unlike what is the case with deflationism where 'Napoleon was the First Emperor of France.' is true merely if Napoleon was the First Emperor of France.)

events or entities is that this account implicitly rejects the principle of bi-valence, which states that any declarative sentence is either true or false (Dummett, 1978, p. XIX). The Later Wittgeinsteinian account also implies that the past is open in relation to some declarative sentences about past events or entities: i.e. that in relation to some sentences about the past, neither the sentence in question nor its negation are true.

Within the presentist tradition, other philosophers have rejected the principle of bi-valence and/or hold the past to be open. Jan Łukasiewicz and the early Ned Markosian for instance, reject the principle of bi-valence, and hold that the past is open in relation to any past-tensed sentence on grounds that the laws of nature are indeterministic with regards to both the future and the past (see Łukasiewicz, 1968, pp. 55-56; Markosian, 1995, pp. 101-102). The sentence 'Yesterday I had breakfast.' would have an 'indefinite' truth-value (Łukasiewicz, 1968, p. 60), or no truth value (Markonsian, 1995, p. 105). In his later work Markosian modifies his position in important respects (Markosian, 2013, pp. 127-141). He now holds that there are certain sentences about the past that are true, namely those that have truth makers.[1] On the other hand, past-tensed sentences that do not have a truth-maker would (along with their negation) be false.[2] If 'Napoleon had two eggs for breakfast on June 15th 1802.' has no truth-maker, both this sentence and its negation would be false. The past would be open with regards to the sentence, since neither the sentence nor its negation would be true.

The Later-Wittgensteinian rejection of the principle of bi-valence does not follow from some indeterministic account of the laws of nature. It follows from how this approach characterizes truth: i.e. solely in terms of the correct use of the linguistic expressions 'is true' and 'is false'. The linguistic expressions 'is true' or 'is false' may be used correctly in relation to sentences about past events and entities only if there exists factive evidence rendering the use of either correct. While there are sentences about the past in relation to which 'is true' or 'is false' may be used correctly, this does not hold for all past-tensed sentences. If there is no factive evidence indicating what Napoleon had for breakfast on the 12th of June 1814, neither 'is true' nor 'is false' can be correctly used in relation to 'Napoleon ate breakfast on the 12th of June 1814.'. The past would be open

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[1] Markosian adopts Truth-making as a theory of truth, and holds that there are some truth-bearers about the past that are made true by truth-makers that include some entities that exist now, the relations or properties these entities instantiate, and the laws of nature. Given the moon and planet earth being (now) at a certain distance from each other, and laws of nature that are; 'deterministic enough to ensure that it is a consequence of those law of nature… [that five hours ago] the moon was [more than] a mile from … earth' (Markosian, 2013, p. 388), the sentence 'Five hours ago the moon was more than a mile from earth.' is true.

[2] In his later philosophy then, Markosian adopts the principle of bi-valence. Sentences are either true (if they have a truth-maker) or false (if they do not).

with regards to the sentence, since neither it nor its negation would belong to the set of true sentences. However, the past is not open in relation to all sentences about past entities or events. If factive evidence rendering the use of 'is true' correct in relation to 'Napoleon was the First Emperor of France.' exists, then the sentence would belong to the set of true sentences.

Crispin Wright and Dummett argue that denying that the past is closed is consistent with; 'ordinary linguistic practice' (Wright, 1987, p. 93. See also Dummett, 1978, p. 367) - with how we use 'is true' and 'is false'. This is because our linguistic practices normally comprise of methods whereby sentences can be established as either true or false. Indeed, Dummett suggests that we cannot have; 'a notion of truth as attaching to statements independently of our means of recognizing them as true' (Dummett, 1978, p. 367). Suppose there is a jar containing a number of coins. Even if no one will ever determine how many coins are in the jar, it is possible to outline the method for determining the truth of a sentence describing the number of coins in the jar, namely, emptying its contents and counting the coins. This is what induces us to think that there is some truth about the number of coins in the jar. Now suppose in contrast that the past is closed, and that 'Napoleon had two eggs for breakfast on the 12th of June 1814.' is either true or false. If there is no evidence indicating what Napoleon had for breakfast on this particular day, then (contrary to the jar example) there can be no method of determining the truth value of this sentence: of considering how – even hypothetically – one could recognize the sentence as true or false. Given this, Dummett and Wright argue that it makes sense to think of the past as open in relation to such sentences like 'Napoleon had two eggs for breakfast on the 12th of June 1814.' for which we have no evidence.

However, the view that the past is open, is quite counter-intuitive, and is held by many philosophers to be; 'undesirable' (Sider, 2013, p. 38). Hypothetically, any event that happened in the past is representable through some sentence S. It is intuitive to presume that if the event was part of the world, S is true: that it is false if the event was not part of the world. If Napoleon did not have two eggs for breakfast on June 12th 1814, it seems intuitive to think that the sentence 'Napoleon had two eggs for breakfast on June 12th 1814.' is false. If he had two eggs for breakfast on the said day, it is intuitive to think of the sentence as true.

Moreover, if on June 12th 1814 tokens or utterances of 'Napoleon is having two eggs for breakfast on June 12th 1814.' were true, it also seems intuitive to hold that tokens or utterances of 'Napoleon had two eggs for breakfast on June 12th 1814.' produced at later times also are true. It seems obvious that there is a truth-value link between these sentences. The Later-Wittgensteinian

approach on the other hand, would hold that there are truth-value links between true tokens or utterances of 'Napoleon is having two eggs for breakfast on June 12ᵗʰ 1814.' produced in 1814, and tokens or utterances of 'Napoleon had two eggs for breakfast on June 12 1814.' produced at later times, only if at the times when the tokens or utterances of the second sentence are produced there is sufficient factive evidence indicating what Napoleon had for breakfast on the said day.[1]

Abandoning the intuitive idea that the past is closed would be a cost of adopting the Later-Wittgensteinian approach to the truth of sentences about past events or entities. The manner in which this approach characterises the truth of sentences like 'Napoleon was the First Emperor of France.' however, enables it to repel the All-powerful being objection.

7.4. The truth of 'Napoleon was the First Emperor of France.' and the All-powerful being objection

In the first part of the chapter a Later-Wittgensteinian account of truth was given. A sentence is true iff, in a determinate language-game and context, the linguistic expression 'is true' may be used correctly in relation to the sentence. (7.1). The correct use of 'is true' in relation to 'Napoleon was the First Emperor of France.' does not require the world to contain Napoleon, but factive evidence indicating that the world contained Napoleon, and that he was the First Emperor of France (7.3).

The remaining sections argue that Wittgenstein's account of the truth of sentences about past entities or events avoids a difficulty which besets the presentist accounts by Bigelow, Cameron, and Bourne mentioned in chapter 6. These aim to provide a truth-maker/supervenience base for the truth of sentences like 'Napoleon was the First Emperor of France.' in terms of Lucretian or distributional properties that the world instantiates (the first two), or of an *erastaz* times series involving sets of abstract propositions (Bourne). However, they cannot exclude the possibility of an All-powerful being providing a truthmaker or supervenience base for sentences about past entities or events, even if this All-powerful being created the world a moment ago. All that it needs to do, is make the world instantiate determinate Lucretian/distributional properties, or concoct

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[1] The Later-Wittgensteinian approach would also hold that tokens or utterances of the two sentences are produced in different language-games: the first in the language-game where people discuss things around them and the second in language-games like the one where historical events are discussed. The criteria for the correct use of 'is true' that would have to obtain in the two cases would be different. The criterion that renders the use of 'is true' correct in relation to tokens or utterances of 'Napoleon is having two eggs for breakfast on June 12ᵗʰ 1814.' requires the existence of Napoleon eating the eggs. The criterion that renders the use of 'is true' correct in relation to tokens or utterances of 'Napoleon had two eggs for breakfast on June 12ᵗʰ 1814.' requires the existence of factive evidence.

together a series of sets of propositions.

Given that the Wittgensteinian account of the truth of sentences like 'Napoleon was the First Emperor of France.' does not involve properties the world instantiates or an *erastaz* time series, the objection has to be re-formulated in terms of the use of the linguistic-expression 'is true', the language-games where the sentence is normally employed, evidence, and an All-powerful being.

From a later Wittgensteinian perspective, the All-powerful being objection would refer to the possibility that:

i)   an All-powerful being creates the world 1 minute ago and fills it with objects apparently dating from supposed past events which occur much earlier than one minute ago, and pointing to past entities like Napoleon that were never actually part of the world.

ii)   sentences like 'Napoleon was the First Emperor of France.' being true because, 'is true' can be used correctly in relation to them in those language-games where they are normally employed, like the language-game where people do history and chronicle the past.

Given presentism, and with regards to the entities it contains, a world like this would be similar to a world where entities really date back to events that were actually part of that world. Would then it be the case that, absurdly, there are worlds where sentences like 'Napoleon was the First Emperor of France.' are true even if these worlds never contained Napoleon?

The section that follows argues that the possibility of the All-powerful being creating the world 1 minute ago and sentences about past entities or events like 'Napoleon was the First Emperor of France.' being nonetheless true, can be ruled out in terms of how Wittgenstein characterizes possibility in his later philosophy.

7.4.i. Possibility from a Later-Wittgensteinian perspective

The All-powerful being objection considered from a Later Wittgensteinian perspective refers to a possibility: the possibility of using 'is true' correctly in relation to sentences about past entities/events, like 'Napoleon was the First Emperor of France.' even if an All-powerful being created all things in the past 60 seconds. It concerns whether this possibility can be permitted or whether it should be discounted.

Various definitions and accounts of what is possible are discussed in mainstream philosophy. A tradition originating from Hume states that whatever is conceivable is possible (Hume, 1978, p. 32). If an entity, situation or state of affairs can be conceived without contradiction, then this entity, situation, or state of affairs is possible (see Moyal-Sharrock, 2007, pp. 157-158). So if one can think consistently of humans being made up of candy floss, we may speak of the possibility of humans being made up of candy floss. If on the other hand it is not possible to conceive or think without contradiction of an unmarried bachelor, then unmarried bachelors would not be possible. However, philosophers like Putnam and Steven Yablo have rejected this account of possibility. They deny that what is possible is merely what can be thought without contradiction (see Putnam, 1975, p. 233; Yablo, 1993, p. 9). It is possible for instance, to think without contradiction of water not being made up of H20 molecules. (The thought of water not being H20, unlike the thought of a married bachelor, is a consistent thought which is not contradictory.) Still, it is not really possible to have water that does not have this chemical composition, since it is this chemical composition (H20) that constitutes water. There is no possible world where water is not H20. Other philosophical debates concerning possibilities are about whether there are different types of possibility (see Fine, 2002; Shoemaker, 1980.); how - if there are different types of possibility - these are related to each other; whether or in what sense possibilities exist; and what entities, situations, or state of affairs are possible or not possible. A lot of contemporary debates about possibility refer to the notion of possible worlds (however these are conceived).

The Later-Wittgenstein does not present an explicit theory of possibility. He does not clearly outline what types of possibility are permitted and which are not, or how they relate to one another. Nevertheless, there are various references to the notion of possibility in his later works. Wittgenstein refers to and distinguishes between different types of possibility.[1] Moreover, though he does not refer explicitly to the notion of possible worlds, he is against considering things, situations or states of affairs that are merely possible as occupying some middle ontological ground between what exists and what does not exist: a 'shadow' of the thing, state of affairs or situation whose possibility is being considered (see Wittgenstein, 1995, pp. 78-79). Though these entries where he refers to the notion of possibility are sparse, they allow one to give a general picture of how one should characterize possibility and how one should determine whether an entity, state of

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[1] For instance, he distinguishes between logical and psychological possibility (see Wittgenstein, 2004, p. 94).

affairs, or situation is possible or not.

The Later Wittgenstein holds that any considerations about what possibilities it makes sense to admit should start off from the language-game/s where the thing, situation or state of affairs whose possibility is being pondered is typically described, discussed or considered (see Wittgenstein, 1995, 194; Wittgenstein, 2004, p.74. See also Moyal-Sharrock, 2007, pp. 174-177). Wittgenstein denies that some entity situation or state of affairs is possible merely because it can be thought or imagined without a contradiction (see Moyal-Sharrock, 2007, p. 176). It is rather the use of certain linguistic expressions in determinate language-games – specifically sentences describing an entity, situation or state of affairs whose possibility is being pondered – that determine whether this entity, situation or state of affairs should be considered as possible or not (See Wittgenstein, 1979, p.82). More specifically, a situation, entity or state of affairs is to be considered as possible if the contents of a sentence describing this situation, entity or state of affairs are consistent with the hinge assumptions of the language-game/s in which such a sentence would typically be employed (see Wittgenstein, 1979, p.51-52). If the contents of such a sentence are not consistent with these hinge assumptions, the state of affairs, situation or entity described by such as sentence should be considered impossible. The sentence would represent an impossible scenario. This may be illustrated through the following two examples. Consider the states of affairs:

i)   Napoleon being killed at Jena in 1803 and being defeated at Waterloo in 1814.

ii)   Napoleon being defeated at Jena in 1803, and winning the Battle of
        Waterloo in 1814.

The sentences describing these states of affairs would be 'Napoleon was killed at Jena in 1803 and was later defeated at Waterloo in 1814.', and 'Napoleon was defeated at Jena in 1803 and won the battle of Waterloo in 1814.'. Both sentences would be employed in language-games like the one where historical events are discussed. In relation to possibility, the question that should be addressed is not whether the sentences are true or false. It is rather whether the states of affairs described by the two sentences are consistent with the hinge assumptions of these language-games or not.

Consider first the sentence 'Napoleon was killed at Jena in 1803 and was later defeated at Waterloo in 1814.'. The sentence would be saying that Napoleon died at one time, but gave battle (and lost) at a later time. The thought is not self-contradictory. It frequently happens in television series, where a character is killed during an episode and reappears later given the storyline. Yet, the

state of affairs described by 'Napoleon was killed at Jena in 1803 and was later defeated at Waterloo in 1814.' is not possible. It is not a possible state of affairs because the contents of the sentence are inconsistent with a hinge assumption on which the language-game where the sentence would be used rests. This is the assumption that if an entity dies and goes out of existence at one time, it cannot exist at a later time. Since the contents of 'Napoleon was killed at Jena in 1803, and was later defeated at Waterloo in 1814.' are incompatible with this hinge assumption, it does not make sense to consider the state of affairs it describes as possible

Consider now the sentence 'Napoleon was defeated at Jena during 1803 and won the battle of Waterloo in 1814.'. This sentence is false. Yet, the events described by this sentence are not incompatible with any of the hinge assumption on which the language-game where this sentence would be typically employed rests. There are no hinge assumptions which imply that a general defeated in battle cannot join and even win a battle that was fought at a later time (assuming he did not die or was unable to fight). Owing to the fact that the contents of the sentence are consistent with the hinge assumptions on which the language-games where the sentence would be typically used rests, it makes sense to refer to the possibility that Napoleon was defeated in Jena during 1803 and won the Battle of Waterloo in 1814 (even if he did neither).

In short, Wittgenstein's later philosophy:

a) does not claim that an entity, state of affairs, or situation is possible simply because this situation, entity or state of affair can be thought consistently and without contradiction.

b) claims that a situation, state of affairs or entity is possible if what is communicated by the sentence describing this situation, state of affairs or entity is consistent with the hinge assumptions on which the language-game where the sentence would be typically employed rest.

The next section argues that, given this account of possibility, the possibility of God creating the world 1 minute ago and 'Napoleon was the First Emperor of France.' being true may be ruled out. In the final section this response in contrasted to the ones by Bigelow, Cameron and Bourne.

7.4.ii The All-powerful being objection refuted.

Before expounding how the All-powerful being objection may be refuted from a later-Wittgensteinian perspective, it is important to keep in mind that, as stated in 7.1, from this persective a sentence is true iff, in a determinate language-game and context, it is correct to use the linguistic expression 'is true' in relation to the sentence. For 'is true' to be used correctly in relation to 'Napoleon was the First Emperor of France.' in a world, there needs to be factive evidence indicating that Napoleon existed, and that he was the First Emperor of France in that world (7.3). This does not require Napoleon himself to be part of the world, and as such is consistent with default presentism. Section 7.4. investigated whether it is possible that an All-powerful being creates evidence about past entities and events which were never part of the world, absurdly rendering sentences about these events and entities true even if the events, entities or facts never existed or obtained. The Later Wittgensteinian rebuttal of this possibility will be based on the Wittgenstenian account of possibility given in the previous section (7.4.1).

In *On Certainty* Wittgenstein himself discusses and dismisses the possibility that God created the world 1 minute ago, and filled it with evidence about a Napoleon who was never part of the world (see Wittgenstein, 1979, pp. 24-26). He holds that while we might question aspects of; 'the story of Napoleon' (Wittgenstein, 1979, p. 24), we cannot seriously doubt whether all objects supposedly dating from the past; 'are [all] based on sense-deception, forgery, and the like' (Wittgenstein, 1979, p. 24), as the All-powerful being scenario would imply. It follows that if the All-powerful being created all entities in the world 1 minute ago, not only the evidence rendering the use of 'is true' correct in relation to 'Napoleon was the First Emperor of France.' would be fraudulent, but also any apparent evidence that may be used to justify the use of 'is true' or 'is false' in relation any sentences about entities or events supposedly existing more than 60 seconds ago. This would require; 'doubting our whole system of evidence' (Wittgenstein, 1979, p. 26). It is a possibility which Witttgenstein thinks it does not make sense to allow, since it is inconsistent and at odds with one of the hinge assumptions on which certain language-games rest. This is illustrated in what follows.

Given the Wittgensteinian account of possibility elicited in the previous section, it makes sense to consider an entity, state of affairs, or situation as possible, iff the use of a sentence describing this entity, state of affairs, or situation is consistent with the hinge assumptions of the language-game in which this sentence would be typically employed. Consider the sentence that describes what the All-powerful being objection implies. This would be the sentence: 'An All-

powerful being created the world 60 seconds ago, including entities that supposedly date from much earlier 1 minute ago.'. Since the sentence refers to a past event, it would be typically employed in language-games like the one where historical events are discussed. It makes sense to consider the state of affairs described by the sentence as possible, if the use of the sentence is consistent with the hinge assumptions on which these language-games rest. This however, is not the case.

In language-games like the one where historical events are discussed, people typically use sentences like 'An All-powerful being created the world 60 seconds ago, including entities that supposedly date from much earlier 1 minute ago.', 'Napoleon was the First Emperor of France.' and 'The world contained dinosaurs.' to indicate events and entities that would have previously been part of the world. Participants to the language-game typically use 'is true' and 'is false' in relation to such sentences, to endorse or deny the use of such sentences in determinate situations. In doing so, they use as evidence objects they presuppose to date back to such events. They use such objects to back up the use of a particular sentence rather than another, and to determine whether 'is true' or 'is false' should be used in relation to a particular sentence. Thus, if one wants to chronicle French history, participants to this language-game refer to certain objects as evidence to justify the claim that one should use 'Napoleon was the First Emperor of France.' rather than 'Joseph was the First Emperor of France.'. The same evidence would also be employed to indicate that one should use 'is true' in relation to the first sentence, and 'is false' in relation to the second.

The use of objects believed to date from the past as evidence is therefore vital to the employment of sentences about past events or entities (and of 'is true' or 'is false' in relation to such past-tensed sentences), in these language-games. It is so vital, that Wittgenstein claims that a hinge-assumption on which this language-game rests is that it cannot be the case that all objects believed to date from the past were suddenly created by some All-powerful being. If we do not make such an assumption, it would not make sense to use sentences to refer to entities or events supposed to have been part of the world, and to use 'is true' and 'is false' to endorse or refute the use of these sentences. Indeed, unless we make such an assumption, language-games where we refer to the past, like the language-game where we discuss historical events, would go out of existence. The very foundations of these language-game would be eroded (see Wittgenstein, 1979, pp. 26 - 27).

Therefore, when engaging in the language-game where historical events are discussed, it might make sense to doubt whether evidence which seems to make the use of a certain sentence in the language-game correct, is actually factive. It might make sense to doubt whether an ancient-

looking document that apparently renders the use of 'is true' in relation to 'Napoleon had two eggs for breakfast on the 12th of July 1803.' correct, was actually produced yesterday. However, it does not make sense to doubt whether each and every object which is supposedly older than one minute came into being in the last 60 seconds ago. Given the pivotal role evidence plays in this language-game, this doubt would attack the; 'whole system' (Wittgenstein, 1979, p. 26) of using certain sentences to refer to past events.

The situation represented by the sentence: 'An All-powerful being created the world 60 seconds ago, including entities that supposedly date from much earlier 1 minute ago.' is inconsistent with hinge assumptions sustaining the language-games where the same sentence would be employed. The All-powerful being scenario cannot be considered as representing a genuine possibility.

7.4.iii The Wittgensteinian response and Bigelow's, Bourne's and Cameron's accounts.

At this point the question that arises is: If the possibility of an All-powerful being creating the world 1 minute ago, and but still making it that case that past-tensed sentences like 'Napoleon was the First Emperor of France.' being true ought to be dismissed, why was it considered in Chapter 6? Why was it taken into consideration in relation to the accounts of Bigelow, Cameron and Bourne, if it there is no such possibility?

After all, the presentist accounts of the truth of past tensed sentences like 'Napoleon was the First Emperor of France.' considered in this work seem quite similar. All of them refer to entities or states of affairs that exist at present. They require presently existing properties in the case of Bigelow and Cameron. They include sets of abstract propositions related to each other and to the set of propositions that describes the world as it exists now in the case of Bourne. In the case of the Wittgensteinian account, the truth of sentences about the past requires presently existing evidence. *Prima facie*, there seems to be nothing in existence that prevents the possibility of an All-powerful being creating the world 1 minute ago, but still making it the case that 'Napoleon was the First Emperor of France.' and other sentences about the past are true, by creating and/or manipulating the entities that would account for their truth in the past 60 seconds.[1]

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[1] In this possible world, all this All-powerful being needs to do is make the world instantiate determinate Lucretian or distributional properties, or concoct a numbers of sets of propositions (and dates) and relate them to the set of propositions that represents reality as it exists now, in the case of Bourne. With regards to the Wittgensteinian account of the truth, all this All-powerful being needs to do is create entities that apparently date from times older than 1 minute, which would testify to existence of people and entities that were never part of the world.

Why would the objection work in relation to the first three accounts, but not in relation the later-Wittgensteinian one?

Given the Later-Wittgensteinian account of truth, 'Napoleon was the First Emperor of France.' and other sentences about the past are true if 'is true' may be used correctly in relation to them in the language-games where these sentences are normally employed (7.4). Given a Later-Wittgensteinian approach to possibility, a situation, entity or state of affairs is possible if the use of a sentence describing this situation, entity or state of affairs, is consistent with the hinge assumptions on which language-games where such a sentence would be typically used, rest. As stated in 7.4.ii, given these accounts of truth and possibility, there is good reason to believe that it is not really possible that an All-powerful being created the world 1 minute ago and filled it with evidence about events and entities that were never part of the world. Some hinge assumptions on which rest the language-games where a sentence describing this would be typically employed- i.e. a sentence describing an All-powerful being creating the world 1 minute ago and still making it the case that sentences like 'Napoleon was the First Emperor of France.' - would exclude this possibility. This rules out the All-powerful being scenario as impossible.

Therefore, what in the Wittgensteinian case excludes the possibility implied by the All-powerful being objection, are an account of possibility and an account of truth that based on the notions of language-game and of hinge-assumptions. Language-games and hinge assumptions on the other hand, play no role in the account of the truth of past tensed sentences by Bigelow, Cameron and Bourne. All one needs to account for the truth of a sentence like 'Napoleon was the First Emperor of France.' is the world instantiating Lucretian or distributional properties, or sets of propositions (the *erastaz* time series). For these accounts to exclude the All-powerful being objection, they would need to adopt notions like language-game and hinge assumptions. They would need to sign up to a Wittgensteinian explanation of what accounts for the truth of 'Napoleon was the First Emperor of France.'. But then, one would no longer need Lucretian or distributional properties, or an *erastaz* time series to account for the truth of sentences like 'Napoleon was the First Emperor of France.'.

7.5. Conclusion

This chapter considered the criticism to presentism which holds that sentences like 'Napoleon was the First Emperor of France.' are true only if the world contains past entities like Napoleon. The chapter presented a Later-Wittgensteinian account of truth, wherein a sentence is true iff the linguistic expression 'is true' may be used correctly in relation to this sentence in some determinate language-game(s). With regards to 'Napoleon was the First Emperor of France.', the sentence is

true if there is factive evidence pointing to the past existence of Napoleon, and to him having been the First Emperor of France (7.3). This is consistent with default presentism. The chapter also indicated how this account of truth, together with Wittgenstein's characterisation of possibility, rule out the possibility of a world which an All-powerful being creates 1 minute ago, but where sentences about past entities and events are nonetheless true.

Conclusion

The thesis starts with an interpretation of McTaggat's argument against time. The argument has the following structure:

> Premise 1: times and events are organized in the past, present and future (the A-series), and earlier/later than, or simultaneous with, other times/events (the B-series). This premise presupposes that the world contains all past, present and future events (eternalism).

> Premise 2: the reality of time requires that change too be real. There can only be change if facts change. The A-series is the only series where facts change.

> Premise 3: 'past', 'present' and 'future' stand for incompatible and mutually exclusive characteristics. The reality of the A-series implies that each event/time instantiates the three, even if they are mutually exclusive. Hence, the world cannot contain events/times that instantiate these A-series characteristics. The A-series is therefore unreal.

> Conclusion: the unreality of the A-series implies that there is no change and no time [see Premise 2].

In chapter 1 two responses to the argument were considered and subsequently rejected. The first by Lowe claims that 'past', 'present' and 'future' are indexical expressions and not terms standing for incompatible characteristics. If these terms stand for indexical expressions, there would be no contradiction. In the chapter, Lowe's claim that these are indexical expressions is denied. Moreover, even if 'past', 'present' and 'future' are interpreted as indexical terms, McTaggart's conclusion that time is unreal may still be achieved, albeit through a different route. Understanding these terms as indexical expressions is compatible with a changeless world. The second response considered in this chapter was by Broad, who claims that McTaggart's argument is vitiated by the manner in which he analyses sentences like 'The Battle of Waterloo is past.': i.e. in terms of a predicate and a tenseless copula. Broad on the other hand, claims that the syntactic structure of such sentences contains a tensed copula which relativizes the contents of tokens or utterances of these sentences to different times, and McTaggart's conclusion would not follow. The chapter on the other hand, argues that even if the copula in such sentences is tensed, McTaggart's conclusion against the reality of time still follows. What plays a crucial role in the argument is understanding the linguistic expressions 'is past', 'is present' and 'is future' as predicates standing for incompatible characteristics, rather than the copula of tensed sentences.

After construing the Later Wittgenstein's theory of meaning, and some insights on his later philosophy in chapter 2, the retort to McTaggart's argument the thesis endorses is laid out in chapter 3. From a Later Wittgensteinian perspective, the thesis rejects the first presmise of the argument, by rejecting a presupposition that this premise imbues. This is the eternalist presupposition which holds that the world contains all events past, present and future. If, in line with the method Wittgenstein adopts in his later philosophy, one starts off from how linguistic expressions are used in the language-games where they are normally employed, one would see that the use of sentences related to the temporal aspect of reality are committed to a version of presentism. This version of presentism is called default presentism. The world would only contain what exists at present. If the world contains only what exists in the present, then there is no series of events which instantiate incompatible characteristics. Change would be accounted in terms of gaining or shedding characteristics, as well as things coming into existence, and going out of the world. Default presentism then, both assures the reality of time and change, and also avoids McTaggart's paradox.

Presentism however, has been censured on various counts. Some philosophers and writers raise scientific objections, claiming that presentism is incompatible with scientific theories like the theory of special relativity. Other objections – which may be called sentence-related objections - concern the content, ontological commitment and truth of sentences about entities that do not exist at present such as 'Napoleon was the First Emperor of France.'. This thesis only considers the second kind of objections, primarily due to the scope of the research subject. They are considered in light of Wittgenstein's theory of meaning spelled out in Chapter 2, and of other aspects of his later philosophy.

In Chapter 4 the first argument against presentism is considered. This argument claims that sentences like 'Napoleon was the First Emperor of France.' express abstract singular propositions that contain past entities like Napoleon. Presentism – including default presentism - would be false because the world would not contain only present entities. Two presentist responses from mainstream literetaure by Crisp and Lane Craig were considered. Some of their shortcomings elicited. Instead, the chapter adovates a later Wittgensteinian response. The later Wittgensteinian retort considers and rejects arguments for the existence of abstract propositions from mainstream philosophy. These hold that the existence of abstract propositions is required to explain the meaning of certain sentences and what is stated by tokens or utterances of certain other sentences, and to account for intentional states like belief. The later Wittgensteinian response denies these

arguments. The meaning of sentences and what is stated by tokens or utterances of certain sentences can be accounted for in terms of the typical use these have in the language-games where they are used, and of contextual features. Regarding intentional states like belief, it is claimed that these can be exhaustively characterized solely in terms of dispositions. There is no need to postulate the existence of abstract of propositions. Default presentism can withstand the criticism based on singular propositions

Chapter 5 considers the claim that sentences like 'Napoleon was the First Emperor of France.' are ontologically committed to the existence of past entities like Napoleon. One of the presentist responses considered is couched in terms of distinction between a realm of fundamental entities or facts, and one of derivative entities or facts. This response – fundamentalist presentism – holds that there is no problem for presentism if such sentences are committed to past entities or facts, as long as these past entities or facts exist or obtain at a derivative level. What presentists should hold is that the fundamental entities or facts - those that ground all other entities or facts – exist or obtain only at present. This would avoid the criticism to presentism, but would come at a cost. Presentism would no longer be an intuitive view, requiring a lean ontology comprising only presently existing entities or facts. Moreover, fundamentalist presentism seems to be incompatible with the version of presentism defeneded in this thesis, i.e. default presntism. The second response, operator presentism, adopts Priorian tense-logic and denies that sentences like 'Napoleon was the First Emperor of France.' are ontologically committed to the existence of Napoleon. Operator presentism is therefore more intuitive than fundamentalist presentism. The problem with this approach is that Priorian tense logic is arguably mistaken in claiming that the tensed character of past and future tensed sentence has tensed operators operating on present tensed sentences. For this reason, default presentism should not use this response to rebut the argument against presentism considered here. Instead, default presentism should adopt the Later Wittgensteinian approach to determine the ontological commitments of sentences. This determines what a sentence asserts or implies regarding the contents of the world by considering its typical use. This approach is akin to the Priorian approach, in that it holds that sentences like 'Napoleon was the First Emperor of France.' are not really committed to past entities. Yet, since it is based on how tensed sentences like 'Napoleon was the First Emperor of France.' are concretely employed - rather than unearthing their syntactic structure, and regimenting all tensed sentences according to one model - it avoids the problems Priorian tense logic faces in relation to sentences that cannot be streamlined according to the model it promotes.

In light of theories of truth like Truth-making and Truth Supervenes on Being, chapter 6

discussed the claim that the truth of sentences about the past like 'Napoleon was the First Emperor of France.' requires the existence of past entities like Napoleon. This would make default presentism untenable. Three presentist responses involving truth-makers or a supervenience base for the sentence that do(es) not comprise Napoleon, were considered. These are the accounts in terms of Lucretian properties by Bigelow, in terms of distributional properties by Cameron, and in terms of an *erastaz* time series by Bourne. These manage to account for the truth of 'Napoleon was the First Emperor of France.' without requiring the world to contain Napoleon. Yet, they cannot rule out the possibility of an All-powerful being making it the case that the sentence is true even if, absurdly, the world never contained Napoleon. Default presentism should not refer to either to rebut the criticism based on truth.

In Chapter 7 the Later Wittgensteinian response to the claim that the truth of 'Napoleon was the First Emperor of France.' requires the world to contain Napoleon was presented. This response was based on a Later Wittgensteinian account of truth, wherein a sentence is true iff, the linguistic expression 'is true' may be used correctly in relation to the sentence. With regards to 'Napoleon was the First Emperor of France.', the linguistic expression 'is true' is used correctly iff there is factive evidence that renders the use of the linguistic expression correct. This is consistent with default presentism. It was also argued that, in contrast to the accounts of Bigelow, Cameron and Bourne, the Later Wittgensteinian account of possibility rules out the option of an All-powerful being creating evidence that renders the use of 'is true' in relation to the sentence correct, even if the world never contained Napoleon. It rules out this possibility because it is inconsistent with one of the hinge assumptions on which rest the language-games where 'Napoleon was the First Emperor of France.' is typically employed.

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