Ingthorsson, McTaggart's Paradox and the R-theory of Time

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Abstract

In his provocative book, McTaggart's Paradox (2016, [9]), R.D. Ingthorsson argues that McTaggart's argument for the unreality of time rests on the principle of temporal parity according to which all times or events in time exist equally or co-exist in a sense that is compatible with their being successive. Moreover, since temporal parity is also an essential tenet of the B-theory, McTaggart's argument against the reality of time can also be used to undermine the B-theory. Ingthorsson argues further that only by adopting an ontologically frugal presentist metaphysics can one avoid McTaggart's paradox and account for identity through time and change. The aim of this paper is to clarify Russell's authentic view of time in contrast to the B-theory which is McTaggart's misrepresentation of Russell and argue that temporal parity it is not a fundamental tenet of the Russellian (R-) theory. For that reason, the R-theory is immune to objections that are based on temporal parity. I shall then offer my own interpretation of McTaggart's paradox that renders Ingthorsson's version of presentism subject to it.

Keywords: McTaggart's Paradox, A-series, B-series, temporal parity, Russellian (fact) ontology, substance ontology, presentism.

1 Introduction

In his valuable book on *McTaggart's Paradox*, R.D. Ingthorsson (2016, [9]) makes some provocative claims regarding the scholarship on McTaggart's argument for the unreality of time. Most notable is his claim that the key assumption that McTaggart employs in his argument, namely, the principle of temporal parity—the view that all times (whether A-times or B-times) exist equally or co-exist—is a basic tenet of the B-theory and therefore, McTaggart's paradox cannot be used to support the B-theory. In other words, McTaggart's argument for the unreality of the A-series rests on a premise that also undermines the B-series, and the B-theory of time. Ingthorsson expresses this point as follows: "But, in the end, the central question still is, do all times exist in parity or not? If they do [as the B view maintains], then how should we understand such a reality as temporal? That is, wherein lies the temporality of earlier than and later than?" (Ingthorsson 2016, p. 141, [9]).

A further provocative claim Ingthorsson makes is that virtually all commentators on McTaggart's philosophy of time have failed to recognize the connection between his *a priori* metaphysics, that is, his view of Absolute Reality, and his view of Present Experience. Ingthorsson maintains McTaggart's argument for time's unreality is intended to demonstrate that time as it is given to us in experience, as stated in the chapter "Time," in (1927, [14]), is incompatible with his view of Absolute Reality found in (1921, [13]). For that reason, Ingthorsson is highly critical of Broad (1933, p. 9, [3]) who claims that McTaggart's paradox is a stand-alone argument that is not dependent on the results in the first part of his inquiry.

Another controversial thesis of Ingthorsson's book is that McTaggart is not concerned with the language of time, but the ontology of time. McTaggart's argument is not based on the proper semantic analysis of sentences which record the facts of temporal becoming, such as "It is raining," and "It's raining has been future and will be past," but with their ontological analysis. Ingthorsson argues that given the principles that underlie McTaggart's substance ontology, the ontological ground of time as we experience it and express it in ordinary language cannot exist, and since McTaggart believes that only what exists is real, he concludes that time is unreal. Thus, it is a mistake to claim as Broad (1938, p. 317 [4]), Lowe (1987, [11]) and others have done that McTag-

gart's argument is based on linguistic confusions.

At the outset, I would like to say that I applaud Ingthorsson's emphasis on the ontology that underlies McTaggart's argument, and given the ontology he attributes to McTaggart, I would not contest that he demonstrates that time is unreal. So, I wholeheartedly agree with his emphasis on the ontology and not the language of time. However, I shall argue that a textual case can also be made for questioning the claim that Mc-Taggart's a priori metaphysics developed in (1921, [13]) is what he employs to demonstrate the unreality of time in (1927, [14]). There is an important difference between the ontology Ingthorsson attributes to Mc-Taggart, and the ontology McTaggart employs to generate his paradox. Indeed, the ontology presupposed by McTaggart's argument (the doctrine of external relations) is inconsistent with his prior commitments. Therefore, not only is Ingthorsson mistaken about McTaggart basing his argument on his prior ontology, I will show that McTaggart is inconsistent in that he bases the argument on an incompatible (Russellian) ontology.

Furthermore, I would also question whether McTaggart's argument for the unreality of time shares a common assumption with *Russell's* view that McTaggart claims to be critiquing in the chapter on "Time," that the B-series alone constitutes time. Ingthorsson claims that just as McTaggart's ontology implies that all temporal positions whether past, present or future co-exist equally even if they are not present, on the B-theory all times co-exist equally even if they are not simultaneous, but successive. Indeed, it is the co-existence of past, present and future that is *common* to McTaggart and the B-theorists. As he puts it,

To illustrate the fundamental difference between *A* theorists, on the one side, and McTaggart and the *B* theorists on the other [we can say:] The former cannot understand why we should think of the future and past as an existing reality—at least not one separate from what exists in the present—and thus fail to see why we should interpret claims about the future and past as claims about something non-present and yet existing, whereas the latter cannot understand how we can fail to think of the future and past as co-existing with the present, even though they are not co-located in time.

(Ingthorsson 2016, p. 89, [9])

Ingthorsson's thesis is that the only adequate A-theory is presentism,

since it rejects temporal parity, whereas all other theories follow McTaggart and B-theorists in accepting temporal parity, and thereby fail. Thus, Ingthorsson maintains that the fundamental debate is not between A-and B-theorists, but between those who adopt the temporal parity thesis (McTaggart and B-theorists and others),¹ and those who deny it (presentists). I shall argue, however, that there is a third alternative that involves a Russellian (or R-theoretic) ontology of time that differs from presentism, McTaggart and the B-theory, as Ingthorsson understands them. The debate between R-theorists and Ingthorsson's version of presentism is between those who view the spatio-temporal universe as the sole purview of reality and those who view the world as greater than the universe, including non-spatial and non-temporal objects. The fundamental debate, in other words is between naturalists and ontologists to use terms that Reinhardt Grossmann (1992, [8]) did to distinguish a fundamental philosophical divide.

To explain what I consider to be wrong with how Ingthorsson characterizes the fundamental agreement between McTaggart and the B-theorists it will be necessary to distinguish McTaggart's understanding of Brelations and the B-series from a Russellian understanding of R-relations and the R-series.² Given the incommensurability between McTaggart and Russell's analyses of the "B-series" it is a mistake to believe that the temporal parity thesis in McTaggart's argument against the A- and B-series can also be employed against the R-series to demonstrate that "the conception of temporal reality as a series of events [...] related as earlier/later than each other [...] is a conception of a changeless reality and consequently not a conception of a temporal reality" (Ingthorsson 2016, p. 92, [9]). I shall proceed by briefly summarizing in section II, McTaggart's ontology as Ingthorsson understands it, and how it differs from Russell's ontology. Then, in section III, I will explain key elements of the Russellian or R-theory of time and the principle of temporal parity, demonstrating how they differ. In the fourth section, I discuss McTaggart's paradox and show how it not only undermines the A-series, but that it is also applicable to presentism as Ingthorsson conceives of it. Since his paradox can be interpreted to show that succession, construed R-theoretically, is the ground of the passage of time, and since

¹Ingthorsson tends to include A-B hybrids, moving spotlight theorists, and even growing blockers among those who accept temporal parity.

²I contrast the B-theory and the R-theory below (pp. 9–11). See also, Oaklander, 2016, 2015, 2014a, 2014b and 2012 [17–21].

presentism rejects cross-temporal relations, McTaggart's argument undermines Ingthorsson's presentism as well.

2 McTaggart's Substance Ontology and Russell's Fact Ontology

According to Ingthorsson, McTaggart's metaphysics "is the ultimate substance ontology and alluring in its simplicity. Reality is grounded in the existence of substances that bear properties and stand in relations" (Ingthorsson 2016, p. 15, [9]). Regarding substance McTaggart claims:

There is a substance which contains all existent content, and of which every other substance is a part. This substance is called the Universe. A universe contains all existent content. Or we can define the Universe as a substance of which all other substances are parts.

(McTaggart 1921, sect. 135, p. 148, [13])

As Ingthorsson interprets him,

McTaggart presupposes that time, if real, is a compound whole whose every part is equally existent and real. [...] Since existence and reality coincide, and *every existing thing is in time*, then by time he includes the whole of reality. There is no distinction to be drawn between existence, reality and time, in terms of their constituents. [...] In other words, *time cannot be external to existent reality but must be an existing part of it*.

(Ingthorsson 2016, pp. 23–24, 29, [emphasis added], [9])

McTaggart says that if any reality is in time, then it must exist. That may be true, but it does not follow, that time itself is in time, that time is an existent somehow in the universe; the realm of concrete objects. Clearly, there are things in the universe that change, but time which is necessary for change, need itself not be in the universe and it need not change. There may be a content greater than the universe; there may be a world that contains constituents that exist but are not in time. I shall argue that in such a world temporal *relations* and temporal *facts* (and all other relations and facts) exist. These relations and facts do not change

but are what make change possible. Thus, it is a mistake to argue, as McTaggart does, that since the relations between events in a time-series do not change and the fact that say, an apple is green before it is red does not change, there is no time or change, unless A-change or becoming is introduced. To see what is involved in these points, it will be useful to consider a distinction that Ingthorsson blurs, between the notion of "fact" in McTaggart's substance ontology and in Russell's fact ontology.

On a substance ontology, the only ontological categories are substances, qualities and relations. Facts do not belong to a category of their own, and so must be understood as being either a substance, quality or relation. This is McTaggart's view, according to Ingthorsson:

We need to become familiar with McTaggart's understanding not only of the general nature of the fundamental building blocks (substances, qualities, relations), but also of whatever has to do with the distinction and connection between thought and reality, such as *beliefs*, *assumptions*, *assertions*, *facts*, *truth* and *falsity*. With respect to the latter, one must understand that *they do not form a separate category of entities distinct from substances*, *qualities*, *and relations*.

(Ingthorsson 2016, p. 16 [emphasis added], [9])

On the other hand, Ingthorsson also claims that

McTaggart's account of facts is in fact very similar to the account given by the logical atomists of an atomic fact, notably that it consisted "either in the possession by a particular of a characteristic, or in a relation holding between two or more particulars" (Urmson 1960: 17).

(Ingthorsson 2016, p. 28, [emphasis added], [9])

Surely, these two notions of "fact" although verbally similar—both are called "states of affairs"— are ontologically quite different.

In a fact ontology, such as logical atomism, there are particulars, non-relational and relational universals, and facts. If a particular exemplifies a non-relational quality, those two different *kinds* combine to form a fact which is an entity over and above its constituents. It is a unity with complexity. If some particular stands in a relation to another, for example, if *a* is earlier than *b*, there is a temporal relational fact. Facts do not exist

in time (or space), and the relational universals that are constituents in them do not exist in time (or space) either, although the terms (particulars) of temporal relations do exist in time.

The philosophy of logical atomism and the notion of an atomic fact is associated with Russell. He treats facts as a category of their own over and above their constituents when he says,

Facts are [...] plainly something you have to take account of if you are going to give a complete account of the world. You cannot do that by merely enumerating the particular things in it: you must also mention the relations of these things, and their properties, and so forth, all of which are facts, so that facts certainly belong to an account of the objective world. ... and the things and their qualities or relations are quite clearly in some sense or other components of the facts that have those qualities or relations.

(Russell 1918, pp. 191–192, [27])

A Russellian fact is a single (unity), yet complex entity that cannot be reduced to its constituents, and for that reason forms a separate category of entities distinct from substances (particulars), qualities and relations.

Despite Ingthorsson's attributing a substance ontology to McTaggart and his subsequent denial of the separate category of facts, McTaggart seems to recognize the category of fact and, like Russell, construes (some) facts as *timeless* even before his denial of the reality of time, since he says:

When the subjective belief is eliminated, it seems to me that the truth goes with it and that we find ourselves left, not with a timeless, non-existent, and true proposition, but with nothing but the fact, which is not true (though it determines the truth of beliefs), which may or may not be *timeless*, and which, as we have seen above, is always in one way or another, existent.

(McTaggart 1921, sect. 38, pp. 35–36, [13])

In the context of discussing the question of whether there are entities that are real, but non-existent, McTaggart distinguishes substance, quality and relations categorically: Qualities and relations are very different from substances, and the fact that a substance cannot be both existent and non-existent does not prove that qualities and relations—which are *universal*, and not *particular* as substances are—could not be existent in one aspect, and non-existent in another. (Mc-Taggart 1921, sect. 5, p. 6, [13])

Although McTaggart ultimately rejects the reality of qualities and relations as real, but non-existent (unexemplified) he accepts Russell's distinction between universals and particulars. McTaggart claims "I am aware of an object or am acquainted with an object—the phrases are used synonymous—when 'I have a direct cognitive relation to that object'" (McTaggart 1921, sect. 44, p. 40, [13]). He then approvingly quotes Russell:

When we ask what are the kinds of objects with which we are acquainted, the first and most obvious example is *sensedata*. When I see a colour or hear a noise, I have direct acquaintance with the colour or the noise. [...] But in addition to the awareness of the above kind of objects, which may be called awareness of *particulars*, we have also [...] what may be called awareness of *universals*. And universal *relations*, too,

objects of awareness; up and down, before and after, resemblance, and so on, would seem to be all of them objects of which we can be aware.

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(Russell 1912, pp. 209–212, [emphasis added]. In: McTaggart 1921, sect. 44, pp. 40–41, [13])
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This is striking because Russell used direct acquaintance with *before and after* as grounds for maintaining that they are primitive, simple temporal relations.

Further evidence that McTaggart takes qualities and relations to be ultimate, and indefinable, incliminable universals and distinct from particulars is his appeal to Russell's argument against reducing the common quality of two particulars to the simple relation of *exact likeness* between them. McTaggart (1921, sect. 83, fn. 1, p. 83, [13]), cites Russell's argument in "On the Relations of Universals and Particulars," to justify the irreducibility of qualities as universals because the argument against qualities requires relations as (timeless) universals:

Likeness at least, therefore, must be admitted as a universal, and, having admitted one universal we have no longer any reason to reject others. Thus, the whole complicated theory, which had no motive except to avoid universals, falls to the ground. [...] There must be relations which are universals in the sense that (a) they are concepts, not percepts; (b) they do not exist in time; (c) they are verbs, not substantives.

(Russell 1911–12, p. 9, [24])

So, we can say that in certain respects McTaggart's ontology has similarities with Russell's. There exist substances (particulars) that stand in relations and have non-relational qualities. Qualities and relations are universals (they do not exist in space or time) and substances are particulars in that, if time exists, are the terms of temporal relations and so exist in time. Surprisingly, then, in (1921) Russell's influence on McTaggart is apparent in his treatment of relations, although there is also a fundamental difference.

McTaggart claims that the conception of relations is indefinable, since it is impossible to substitute for it any other concepts which can be taken as equivalent (McTaggart 1921, sect. 80, p. 80, [13]). He notes that theories have been put forth to demonstrate "that relation, though valid of existence, was not ultimate, but *definable* in terms of quality, so that statements about relations could be *translated* into statements about qualities" (McTaggart 1921, sect. 80, p. 81, [emphasis added], [13]). McTaggart maintains, however, that these theories are *mistaken*. "No fact which can be stated in terms of relations between substances can ever be stated in terms which omit the conception of relation" (McTaggart 1921, sect. 82, pp. 82–83, [13]). In other words, McTaggart *initially rejects* the view that relations can be reduced to or eliminated by the qualities of one or both of the terms of the relation.

Although McTaggart argues that relations are indefinable, irreducible and ineliminable in terms of qualities, he does say that if there are relations then there are qualities generated in each of the terms of the relation. McTaggart summarizes these points in the following passage:

The conception of relation, then, must be accepted as valid of the existent. But it might be admitted to be valid, and yet denied to be ultimate and indefinable. It might be said that it really was true that substances were in relations, but that the fact expressed in this way could be expressed in terms of qualities only, without bringing in relations. But this also is false. [...] A relation may no doubt be based on a quality in each of its terms. But this does not mean that it can be *reduced* to those qualities. If A is larger than B, this relation may depend on the fact that A covers a square mile, and B covers an acre. ... But a statement of the size of A and a statement of the size of B are not equivalent to a statement that A is larger than B, though the latter may be a certain and immediate conclusion from them.

(McTaggart 1921, sect. 82, pp. 82–83, [13])

It is quite clear therefore that McTaggart (1921, [13]) accepts the existence of relations, including temporal relations, and in his discussion of cognition (1921, [13]), he quotes Russell who maintains that we are acquainted with them.

Thus, there are three views of relations that McTaggart considers. First, that relations are definable, reducible or eliminable in terms of qualities; a view McTaggart consistently rejects in (1921, [13]). Second, that relations are not definable or reducible to the qualities of their terms but depend on them; McTaggart's view in the passage just quoted. Third, Russell's view that relations are indefinable and irreducible to qualities and are not dependent on the qualities (temporal or otherwise) of their terms. McTaggart seems to have some sympathy with this Russellian view in his discussion of cognition quoted above. In the next section I shall argue that McTaggart's argument against the B-series, the A-series, and thus against the reality of time does not depend on the principle of temporal parity as Ingthorsson understands it, but on his changing analysis of temporal relations. For that reason, McTaggart's argument in (1927, [14]) should or at least could, as Broad maintained, be understood as a stand-alone argument that does not depend on his a priori metaphysics in (1921, [13]).

3 The R-theory and the Principle of Temporal Parity

Richard Gale refers to Russell as "the father of the B theory" and indeed, there is a good reason for him to do so, since McTaggart claims

that "Mr. Russell's time-series [...] is identical with our B series [...] and the relation which unites the terms of the B-series is the relation of earlier and later" (McTaggart 1927, sect. 351, p. 31, [14]). However, the ontology of the B-series as McTaggart understands it is not the same as the Russellian time series as it should be understood. It will be useful, therefore to clarify Russell's authentic view in contrast to the B-theory which is McTaggart's misrepresentation of Russell but has nevertheless been accepted generally as Russellian.³ A brief discussion of some of the differences between the Russellian theory of time ("R-theory" for short), and standard B-theoretic accounts as understood by defenders and critics alike is in order.

On typical interpretations, the ontology of B-time is construed as anti-realist because it denies that temporal passage is an objective, mindindependent feature of reality. or that reason, B-relations and the B-facts they enter, that alone constitute the foundation of the B-theory of time, are "nontransient" and static in that what appears to be the flow and flux of events in time —time's dynamism—is an illusion that would not exist without consciousness. On the other hand, R-relations as given in experience are not static, but *dynamic*, and are the basis of our experience of transition and the passage of time. Since the R-theory rejects the common view that B-time is a static, block universe, this last point deserves attention.

³For a good discussion of McTaggart's misinterpretation of the Russellian view see Tegtmeier (2012, [32]).

⁴Not all B-theorists think of B-relations as static. See, for example, Savitt (2002, [30]), Deng (2013a, 2013b, [5–6]), Leininger (2014, [10]), and Mozersky (2015, [15]). For a critique of those who claim that the A-series, temporal passage and the dynamic aspect of time are illusions see Boccardi and Perelda (2017, [1]).

⁵Russell gives a colorful example of our experience of the earlier than relation in the following passage: "Immediate experience provides us with two time-relations among events: they may be simultaneous, or one may be earlier and the other later. These two are both part of the crude data; it is not the case that only the events are given, and their time-order, within certain limits, is a much given as the events. In any story of adventure you will find such passages as the following: 'With a cynical smile he pointed the revolver at the breast of the dauntless youth. "At the word *three* I shall fire," he said. The words one and two had already been spoken with a cool and deliberate distinctness. The word *three* forming on his lips. At this moments a blinding flash of lightning rent the air.' Here we have simultaneity—not due, as Kant would have us believe, to the subjective mental apparatus of the dauntless youth, but given as objectively as the revolver and the lightening. And It is equally given in immediate experience that the words *one* and *two* come earlier than the flash'." (Russell, 1914, pp. 116–117, [25]).

I have the knowledge that time has passed when, for example, I reflect on successive changes along my life's way (when I got married, when my first child was born, when my first grandchild was born and so on), or when I see that the position of the minute hand on my watch has changed its position. There is, however, a more immediate way in which we know that time is passing. This occurs when we are directly aware of passage, when we experience change in a single act of awareness. For example, if we look at a second hand of a watch or a flickering flame, we see the moving second hand at one place on the watch before the other, or one flicker of the flame occur before another in a single act of awareness. These are cases where we experience two stages of the second hand or flame occur in succession, one earlier than the other, and in so doing we are directly aware of a temporal transition or passage from one stage to the other. Similarly, when we hear the *successive* notes of a tune or feel the *successive* taps of a physician on our abdomen during a physical, we directly experience that time is passing.

On the R-theory, an appeal to the direct experience of succession in a single act of awareness is the basis for grounding our most basic experience of the flow or passage of time on mind-independent temporal earlier/later than *relations* alone; a view I will call the temporal relational theory or Russellian theory. On the R-theory, the commonsense belief that time passes is to be understood in terms of the *relation* of succession between earlier and later temporal objects. Thus, the passage of time consists in the succession of events throughout the history of the universe; one event – the earlier – being followed by another – the later.

Returning to the differences between B- and R-theorists, on standard (reductionist) B-theories, B-relations are analyzable in terms of causal relations whereas the R-theory takes R-relations as primitive and unanalyzable, relational universals that can be directly experienced. Russellian temporal relations are *external* relations, since "there are such facts as that one object has a certain relation to another, and that such facts *cannot* be reduced or inferred from, a fact about the one object only together with a fact about the other object only: they do not imply that the two objects have any complexity, or any *intrinsic* property distinguishing them from two objects which do not have the relation in question" (Russell 1966, pp. 139–40, [28]). For that reason, R-relations are neither analyzable in terms of A-properties of their terms nor do they depend on A-properties. Indeed, on the R-theory there are no such properties.

A last difference is particularly important for the discussion to follow. The B-theory is often identified with McTaggart's (1927, [14]) misinterpretation of Russell, according to which B-relations are unchanging and B-facts are *permanent* in that if *a* is *ever* (at any time) earlier than b, then *a* is *always* earlier than b. In contrast, R-theorists do not believe that either R-relations or R-facts exist in time, much less at every time, as McTaggart's interpretation implies. *Earlier than* is a *timeless* yet *dynamic temporal* relation. It is timeless because it does not exist in time; as a term of a temporal relation. It is dynamic because it is the ground of our experience of the passage of time; of *successively* existing temporal objects that exist tenselessly, that is, without tensed or A-properties. Similarly, time, understood as a Russellian series composed of a conjunction of R-facts, is timeless or atemporal. This view gives some meaning to an aphorism I favor, namely, *time is timeless*, or eternal in just this sense: though time contains temporal relations, time does not exemplify them.

Ingthorsson argues that McTaggart's paradox rests on a premise that can also be used to undermine the B-theory of time. The only view left standing is presentism. The premise is the "temporal parity thesis," the view that all times exist equally or co-exist, in a sense that is compatible with their being successive and not simultaneous or timeless. I disagree and shall argue that McTaggart's argument rests on a premise other than temporal parity whose implications refutes the B-series (as McTaggart understands it), the A-series (whose terms are past, present and future) and the A-theory including presentism, but when the dust settles, leaves the R-theory unscathed. This is a surprising conclusion, but true none-theless, or so I shall argue.

The premise that plays a crucial role in McTaggart's argument against the B-series, the A-series and for the unreality of time is *not* the principle of temporal parity as Ingthorsson understands it, but McTaggart's analysis of "earlier than." He states that analysis in the following passage:

The series of past, present and future is what we have called the *A* series, on which the *B* series of earlier and later is dependent. The term *P* is earlier than the term *Q*, if it is ever past while *Q* is present, or present while *Q* is future.

(McTaggart 1927, sect. 610, p. 271, [emphasis added], [14])

This premise is nowhere argued for but is assumed in his argument against the B-series and the A-series. Moreover, it is incompatible with

his account of relations in (1921, [13]), and so incompatible with the *a priori* metaphysics found there. Recall, that in (1921, [13]) he argued that relations are indefinable, and that while the terms of relations have qualities on which they may be based, they *cannot be reduced* to those qualities. However, in a footnote accompanying the passage above, McTaggart is claiming that "earlier than" *can be defined* in terms of temporal qualities (or relations to a term *X* outside the A-series). I shall argue that this analysis is crucial to his argument for the unreality of time but is incompatible with the temporal parity thesis, and his earlier view of relations. For that reason, McTaggart's (1927, [14]) argument can be construed as a stand-alone argument not dependent on his *a priori* metaphysics in (1921, [13]).

We shall see, even more importantly, McTaggart defends his analysis of *earlier than* by appealing to his rejection of the B-series, but his rejection of the B-series implicitly appeals to his analysis, and so massively begs the question against an R-theoretic interpretation of the B-series. It also implies an understanding of the temporal parity thesis that underscores a difference between McTaggart and R-theorists, even if McTaggart and B-theorists can be grouped together. To see what is involved in these points, let us return to McTaggart's text.

One problem with McTaggart's account of "earlier than" is that the word "while" implies that each of the disjuncts exist *in time* and thus the analysis is circular. For if *P* is past at *t*1, and *Q* is present at *t*1, then that is reducing "is past at" and "is present at" to the relations "is earlier than" and "is simultaneous with." If he denies absolute time, then "while" would imply simultaneity. Then Socrates is past is just as real as or *is simultaneous with* Oaklander is present. In that case, temporal parity implies co-existence in the sense of simultaneity, and that is incompatible with co-existing terms being successive. Finally, if "while" means co-present or existing at the same NOW, then we still haven't grounded for example, Socrates existing earlier than Oaklander because Socrates being past, and Oaklander being present are both facts that exist now.⁶

Leaving that problem aside, McTaggart says that there seems to be a counterexample to his account of "earlier than" since in a durational present we are acquainted with the *earlier than* relation where both terms

⁶Hope Sample has suggested to me that "while" could be understood in an atemporal sense of co-exist, but then co-existence would imply that each of the terms in each disjunct exist "eternally" and not successively, raising the specter of McTaggart's paradox.

are *present* and thus are neither past or future. His reply is instructive:

Two terms may both be present together, although one is earlier than the other. This is due to the fact that the present is a duration, and not an indivisible point. But the statement in the text remains an adequate *definition* of "earlier than," for although *P* and *Q* may *at one time* be in the same present, yet, *before* that, *P* is present while *Q* is future and *after* that, *P* is past while *Q* is present.

(McTaggart 1927, sect. 610, fn. 1, p. 271, [emphasis added], [14])

McTaggart's response to the alleged counterexample is that if it is *ever* the case that *P* is past while *Q* is present, or *P* is present while *Q* is future," then *P* is *earlier than Q*, and the antecedent is satisfied because *before P* and *Q* are both present, *P* is present *while Q* is future, and *after* they are both present *P* is past *while Q* is present. Thus, McTaggart says that the statement in the text remains an adequate *definition* of "earlier than." However, to avoid an objection to his definition of "earlier than" by appealing to "before" and "after" is obviously circular. We saw that his appeal to "while" in his statement of the analysis of 'earlier than' is also problematic. This is important because it shows the need for primitive R-relations to account for the phenomenology and ontology of the *earlier than* relation and temporal passage. Indeed, McTaggart paradox results if we attempt to ground time without them, as we shall see.

McTaggart raises another objection to his analysis of "earlier than" that mirrors Russell's analysis of the tenses in "Our Experience of Time" (1915, [26]), with which McTaggart was obviously familiar. McTaggart says that since we can perceive the *earlier than* relation without perceiving the A-properties of *pastness* and *futurity*, perhaps we can take *earlier than* as primitive (as the R-theorist would have it) and define the future as what is later than the present, and the past as what is earlier than the present. He says:

Since the present comprises different terms, of which any one will be earlier or later than any other, it might be thought that the fact that *P* was earlier than *Q* would be perceived when they were both present, and that "earlier than" *need not be defined in terms of the A series*. After this, it might be

thought, the future may be defined as what is later than the present, and the past as what is earlier than the present. Thus, the A series would be defined in terms of the B series, instead of the B series in terms of the A series.

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(McTaggart 1927, sect. 610, fn. 1, p. 271, [emphasis added], [14])
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In other words, McTaggart considers the view that the B-series alone constitutes time and that the A-series is not needed in a complete ontology of time given that we are directly acquainted with *earlier than* without being acquainted with A-properties.

McTaggart's response is familiar since it harkens back to his argument against the B-series in his chapter on "Time" (1927, [14]). He replies to the above argument by saying that to suppose that the B-series alone constitutes time

[...] would be a mistake. For the series of earlier and later is a time series. We cannot have time without change, and the only possible change is from future to present, and from present to past. Thus, until the terms are taken as passing from future to present, and from present to past, they cannot be taken as in time or as earlier and later; and not only the conception of presentness, but those of pastness and futurity, must be reached before the conceptions of earlier and later, and not *vice versa*.

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(McTaggart 1927, sect. 610, fn. 1, p. 271, [emphasis added], [14])
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McTaggart's argument against a B- or R-theoretic reduction of A-determinations is that earlier and later are temporal relations that generate a time-series, only if their terms form an A-series and change A-properties with the *passage of time*. His justification is the argument quoted above that nothing changes in the B-series alone, since there is no temporal passage, and without events changing their A-determinations there are no temporal relations. I shall show, however, that this does not constitute an argument against the R-theory, since it mischaracterizes the R-series as a B-series and construes the B-series in a way that assumes McTaggart's definition of "earlier than." McTaggart's argument against the B-series also shows that temporal parity takes the terms of the B-series

to be simultaneous, sempiternal or timeless (eternal), and not successive, and so cannot be employed against the R-theory. To see what is involved consider McTaggart's argument against the view that there *can* be a temporal series without the A-series. McTaggart argues that since the *relations* between the terms of the B-series are *permanent*, nothing changes on the B-series by coming into and going out of existence:

If *N* is ever earlier than *O* and later than *M*, it will always be, and has always been, earlier than *O* and later than *M* since the relations of earlier and later are permanent. *N* will always be in the *B* series. And as, by our own hypothesis, a *B* series by itself constitutes time, *N* will always have a position in a time-series, and always has had one. That is, it always has been an event, and always will be one, and cannot begin or cease to be an event.

(McTaggart 1927, sect. 310, p. 12, [14])

Generally, McTaggart says what he means, and means what he says. He does not say that "if it is ever *true* that N is earlier than O and later than O, it always will be *true* and always has been *true* that [...]." He is not talking about beliefs, but about facts, about time itself. So, the principle, if it is *ever* that case that P, then it is *always* the case that P, is stating a truth about the universe (the existent) that requires an ontological ground that *always* exists.

McTaggart's argument against the B-series and for the A-series (whether construed as terms having A-properties or standing in A-relations to a term outside the series) misinterprets the R-theory and assumes the existence of the A-series. McTaggart's argument misinterprets Russell since on the R-theory, temporal relational facts are *timeless* in the sense that they do not exist in time, i.e., they do not occupy moments (since there are none), they do not exemplify non-relational temporal properties (since there are none), and they do not stand in temporal relations (since relations of the first order can only have particulars as terms). On McTaggart's analysis of the B-series, however, B-relations

⁷Although Ingthorsson would disagree with my literal interpretation of this passage (see Ingthorsson, 2016, p. 39, [9]), he does say "McTaggart consistently stays in object-language mode, assuming that he is talking about the world, and only ever takes a step back to talk about our talk of the world when he thinks that his particular use of words invites the risk of misunderstanding" (Ingthorsson 2016, pp. 89–90, [9]), and that would support my interpretation.

between terms are *permanent*, they *always have been* and *always will be*. In other words, B-facts and the terms of those facts *always* exist; they exist at every time. "If N is *ever* earlier than O and later than M, it *will always be*, and *always has been*, earlier than O and later than M" (McTaggart 1927, sect. 310, p. 12, [emphasis added], [14]). This contradicts the notion of R-relations and R-facts, since if R-relations and R-facts do not exist in time then they cannot be permanent, and therefore cannot exist at every time. Why, then, in an argument against Russell would McTaggart assume that the B-series is permanent or *always* exists?

It is at this point that McTaggart's assumption of his definition of "earlier than" comes into play. If B-relations are analyzed in terms of different substances/events having incompatible A-properties at the same time (P is present *while* Q is future) or (P is past *while* Q is present), and so on, then the B-series would exist at every time. The B-series would be a permanent fact whose terms exists *at every time* with different temporal A-properties. Thus, without A-properties the series of the terms of the B-series would not be successive but either a simultaneous, sempiternal block, or timeless. Admittedly, on such an interpretation of the B-series nothing would change by coming into and going out of existence or by acquiring and losing a property. However, in an argument against R-relations, that are primitive, unanalyzable and indefinable relations, it obviously misunderstands R-relations (or the B-series as a Russellian would understand it) and begs the question.

McTaggart's argument that the characteristics of pastness, presentness and futurity must be *relations* to a term outside the time series and not qualities supports my reading of temporal parity as excluding coexisting yet successive times:

Let us first examine the supposition that they are relations. In that case only one term of each relation can be an event or a moment. The other term must be something outside the time-series. For the relations of the A series are changing relations, and the relation of terms of the time-series to one another do not change. Two events are exactly in the same places in the time-series, relatively to one another, a million years *before* they take place, *while* each of them is taking place, and when they are a million years in the past. The same is true of the relation of moments to each other. Again, if the moments of time are to be distinguished as separate realities

from the events which happen in them, the relation between an event and a moment is *unvarying*. Each event is in the same moment in the future, in the present, and in the past. (McTaggart 1908, p. 467, [emphasis added], [13])

Thus, for McTaggart, to say that a is earlier than b does not change means that they are in the same position in the time series before they take place, after they take place and when a and b are happening. However, if B-series facts exist at every time, then their constituents, a and b, always exist, and so are simultaneous or sempiternal, and not successive. Thus, NOW a is earlier than b, and it always has been the case and always will be the case that a is earlier than b. This is the ground of B-series facts always existing, but obviously, that cannot be an argument against the existence of the R-series without the A-series, unless it assumes an analysis of the B-series in terms of the A-series and confuses the R-series with the B-series.

Interestingly, some of the textual evidence that Ingthorsson gives to support his attributing the temporal parity principle to McTaggart implies, it seems to me, that past, present and future events do all coexist, but simultaneously, and not successively. McTaggart says, "Now tomorrows weather is existent, for existence is as much a predicate of the future and past as of the present" (McTaggart 1921, sect. 6, fn. 1, p. 7, [13]). I think it is important to note that this quote implies not only that "Now tomorrows weather is existent," but also that "Now yesterday's weather is existent," and "Now, today's weather is existent." In other words, McTaggart's assertion of temporal parity—that past, present and future exist equally or co-exist—does imply that all the tensed facts in a single A-series are now, hence simultaneous, and does not support that they exist successively.

McTaggart is not claiming that a single event is past present and future simultaneously, but that say, Socrates is past, Oaklander is present, and the 100th president of the US is future, are all contents in a single A-series, and thus all exist NOW, at the same time or simultaneously. Thus, there is no ground for the different terms of a single A-series being successive even though they are equally real or co-existent. For McTaggart (1927, [14]) temporal parity does not allow for all times to be co-existent and still be successive. McTaggart's notion of co-existence as applied to the terms of the A-series is simultaneity or timelessness, and therefore the temporal parity thesis is not something that McTaggart and

R-theorists have in common. Thus, it is a mistake to claim that for the R-theorist "Socrates is in reality just as existent and real as we are now," (Ingthorsson 2016, p. 83, [9]) since for the R-theorist, Socrates is past, and Oaklander is present, are not facts that exist now because they do not exist in time at all.

By treating McTaggart and B-theorists on a par in accepting the principle of temporal parity, Ingthorsson fails to see that there is a fundamental difference between McTaggart and R-theorists. For McTaggart two objects/facts in *an* A-series cannot co-exist unless they are both NOW, and so exist at the same time. The R-theorist need not accept temporal parity in that sense. The R-theorist does not accept that Socrates is just as real and existent as we are now, that there is a sense in which Socrates "still exists."

It might be objected that if R-relations are atemporal, then that is one notion of "permanence" and in this context to be permanent means to exist independently of any change. Thus, McTaggart could be making the point that the B-series does not involve change since the relations that generate it do not change. But it is a mistake to suppose that the basis of change must itself change; that the ground of temporality in the world must itself be temporal in the sense of existence in time.⁸

4 McTaggart's Paradox

To begin our discussion of McTaggart's paradox 9 let me call your attention to an ambiguity, already alluded to, in the notion of the A-series. The A-series may be a single A_1 -series, or the A-series can be an A_2 -series of A_1 -series. Consider the following quote where McTaggart characterizes an A_1 -series:

We must begin with the A series, rather than with past, present, and future, as separate terms. And we must say that a series is an A series when each of its terms has, to an entity *X* outside the series, *one*, *and only one*, of three indefinable relations, pastness, presentness, and futurity, which are such

⁸For a fuller discussion of this point including a reply to the "No change" objection to the R-theory in the context of Ingthorsson's critique of the B-theory, see my review of Ingthorsson's book (Oaklander, forthcoming 2019, [23]). For an account of emerging and passing away consistent with the R-theory see Tegtmeier (1999, [31]).

⁹For my earlier account of McTaggart's Paradox see Oaklander (2002, [16]).

that all the terms which have the relation of presentness to X fall between all the terms which have the relation of pastness to X, on the one hand, and all the terms which have the relation of futurity to X, on the other hand.

(McTaggart 1927, sect. 328, p. 20, [emphasis added], [14])

A single A-series has terms that each co-exist, and Ingthorsson claims that co-existence is compatible with their existing in succession, but that is incorrect since each term in a single A-series is NOW either past, present, or future. It is correct that *a*, *b*, *c* exist equally, but not that they exist in succession.

There are two reasons why a single A_1 -series is not a genuine temporal series whose terms exist in succession. First, because there is no change in a single A-series because there is no term that has a property and then loses it. Second, although his definition of "earlier than" would suggest that a single A-series whose terms have different A-properties is a temporal series, that is not in fact the case for if *P* is past *while Q* is present, then *P* and *Q* exist at the same time either *simultaneously*, if in B-time, presently, in A-time, or at t_1 , if time is absolute. Thus, there is no ground for *P* is earlier than *Q* in a single A-series, for to generate a temporal series that contains "real change" there must be temporal passage and that requires a series of A-series. An A_2 -series of A_1 -series in which each different A₁-series have terms with incompatible A-properties. For example, in one A_{1a} -series, e is present and e' is future, and in another A_{1b} -series e is past and e' is present. Of course, an A_2 -series of such a conjunction of A₁ series is not yet a temporal series for unless we introduce time in some way the A₂-series is contradictory. What, then, is to be done? McTaggart's answer is startling:

When we say that the B series is a series of changes, we do not, of course, mean that the terms change their places in the series. If one term is ever earlier than another, it is always earlier than that other. But the B series is a time-series, and time involves change. And the change in the terms of the B series is that they are *successively* present (*passing* from futurity to presentness, and from presentness to pastness). It is first an *earlier* term which is present, and then a *later* one. (McTaggart 1927, sect. 698, p. 347, [emphasis added], [14])

What is key here is that the ground of the passage of time from the future

to the present is the relation of *succession*. The A_2 series of A_1 -series is a temporal series because the generating relation is earlier than since "it is first an earlier term [in an A_{1a} -series] which is present, and then a later term (in an A_{1b} -series) that is present." In other words, A-theoretic change or temporal passage presupposes succession. 10 It is not sufficient for change that one and the same event/object/time have incompatible they temporal properties, must have them successively. However, the appeal to succession to ground the passage of time gives rise to either the unreality of time, due to a vicious infinite regress if succession is analyzed A-theoretically in terms of McTaggart's definition of "earlier than," or the R-theory of time if succession is analyzed R-theoretically, since then R-relations are more fundamental than A-properties, and temporal passage and temporal becoming are grounded in R-relations.

To put this point slightly differently, let's go back to his definition: "The term P is earlier than the term Q, if it is ever past while Q is present, or present while Q is future" (1927, sect. 610, p. 271, [14]). Since neither disjunct alone could *ground P* is earlier than Q (even if each could entail it), the disjunction should be a conjunction. In that case, P is past *while* Q is present, *and* P is present *while* Q is future. If "while" is non-temporal, then a contradiction exists since P and Q would timelessly have incompatible properties. On the other hand, if "while" is temporal, then it is assuming time and so we must ask, what more is needed to give us time and change? McTaggart answers that question, and his answer is quite revealing. To repeat:

And the change in their terms of the B series is that they are **successively** present (passing from futurity to presentness, and from presentness to pastness). It is *first* an **earlier** term which is present, and *then* a **later** one.

(McTaggart 1927, sect. 698, p. 347, [14])

In other words, the ground of change in the B-series is the transition from one present to another; the transition from one A_{1a} -series to another A_{1b} -series is that the terms of the A_2 -series are **successively** present! However, if *succession* is a primitive R-relation and the basis of temporal passage or temporal transition then McTaggart's definition of "earlier than" in terms of A-properties is undermined. On the other

¹⁰This point is also argued for in Boccardi [2].

hand, if *succession* from one present to another is analyzed in terms of his definition of "earlier than," that would give rise to another third level A₃-series whose terms are a series of A₂-series, with incompatible A-properties, that is contradictory and static without introducing succession and thus leading to a vicious infinite regress. Thus, without R-relations and the R-series as the basis of passage, the result is a contradiction or a vicious infinite regress, but with R-relations, the A-series is not needed for time to pass. For that reason, the significance of McTaggart's argument is not that time is unreal, but that time requires temporal passage which can only be grounded by appealing to a primitive R-relation of succession.

McTaggart's argument can also be applied to presentism. For suppose we consider his definition of "earlier than" and say that only one of the disjuncts, that is, only one A-series exists, the one that is *now*. Since it is the case that say, P is past *while* Q is present, we can then maintain that "while" designates the *present* time. The seemingly advantage of presentism in this case is that all tensed judgments, including those about the future and the past for example, "It will rain" and "It did snow" and "It is now sunny," are all grounded in the present. The single A-series that is present. Moreover, given his definition of "earlier than," a single A-series presumably also grounds the existence of that relation. Importantly, there is no contradiction since no single term of an A-series has incompatible A-properties. These are all advantages of a McTaggartian conception of presentism.

Nevertheless, these apparent advantages for presentism come to naught since a single (present) A-series is not sufficient to constitute time. To have time there must be *passage* and for that presentism must account for continual becoming or absolute becoming. Passage involves a *transition* from the existence of one single A-series to the existence of another single A-series. In other words, one present (a single A-series) must go out of existence and another come into existence. However, transition is from existence to non-existence/existence (existence of an A_{1a} -series to ceasing to exist of A_{1a} and coming to exist of A_{1b}), and that involves succession.

In other words, a single A-series presupposes a series of A-series since, as Richard Gale has noted:

It can easily be shown that if there is one A-series there must be a series of A-series. Assume that the A-series consist of events M, N and O, which are respectively past, present and future. A past (future) event by definition is one which was (will be) present. Thus, if there is one A-series there is becoming—a series of A-series; and if the A-series is objective then so too is becoming. (Gale, 1969, p. 190, [7])

Note, however, that McTaggart's point is that a sequence of A-series does not constitute a temporal sequence or series unless the generating relation is a temporal relation. Thus, if P(Q) is ever past (present) then at an *earlier* time P(Q) had to be present (future). In other words, a single A-series is not itself a temporal series since it does not involve change. What is needed to generate time is passage, but passage requires a succession of present A_1 -series or at least a succession of present times for different A_1 series to become present at. Thus, without a primitive notion of *earlier than* a single A-series whose terms are past, present and future, could not exist. Of course, with a primitive *earlier than* relation there would not be an A-series either since a primitive *earlier than* relation is nothing other than the R-relation which therefore must exist, and an R-relation being an external relation does not have terms with A-properties.

Clearly, Ingthorsson would reject this McTaggartian understanding of presentism because he rejects A-properties (past and future events), and "denies that tensed passage occurs at all" (Ingthorsson 2016, p. 128, [9]). Nevertheless, I think the line of argument I have developed in interpreting McTaggart applies to his form of presentism as well. For although Ingthorsson rejects *tensed* passage, he undoubtedly accepts *temporal* passage since he believes that the ordinary conception of change is dependent on it. He says,

Change is a difference in the properties of an object that remains numerically identical through the change, i.e., 'genuine change'. This conception of change requires that things persists by *enduring*, i.e., that they come to exist at many times by *passing* as numerically identical three-dimensional bodies through time. [...] It is the view that ordinary material objects are three-dimensional *things that move as numerical wholes through a succession of times*.

(Ingthorsson 2016, p. 94, [emphasis added], [9])

Ingthorson highlights the need for temporal passage in endurantism when he says: "It is indeed some form of *temporal passage* that is supposed to allow three-dimensional objects to come to exist at many times and yet exist *completely* and *only* at each of those times., i.e. without having parts 'lying around' at other times" (Ingthorson 2016, p. 95, [emphasis added], [9]). Ingthorson makes it clear that temporal passage is "what allows three-dimensional particulars to be at many times in succession" (Ingthorson 2016, p. 99, [9]) and to be wholly present at those times. His form of presentism involves "permanent" material substances that do not come into being or go out of being, but "'remains' continuously in the present" (Ingthorson 2016, p. 138, [9]) as they pass through the flow of time and change.

There are several problems with this analysis that lead us once again, it seems to me, to the R-theory. Ingthorsson maintains that just as an object can move from one place to another only if it passes as a whole from one place to another, an object can pass from one moment to another only if it is wholly contained in each moment through which it passes (Ingthorsson 2016, p. 99, [9]). The first point I want to make is that the analogy assumes the existence of times that exist before and after a substance arrives at them, just as spatial places must exist before and after an object leaves and arrives at them. The idea of motion assumes that the place where we left from still exists and the place that we are moving to already exists. So, if an object, *x*, leaves one time, arrives at another time, and moves toward another time, this implies that more than the present time exists. Thus, the notion of temporal passage, as Ingthorsson unwittingly conceives of it, involves the co-existing of times that are either not successive (if only the present exists), but are simultaneous, or they are successive but then it is not the case that only the present exists and is incompatible with his denial of cross-temporal relations.

Thus, Ingthorsson is faced with a dilemma. If the passage of objects through time is grounded in the succession of times through which objects move, then since succession is a cross-temporal relation and everything cannot be grounded in the present. Moreover, it treats the time-series as a series through which objects move leading to all the problems of the moving spotlight view, and further undermining presentism. Similarly, if a substance moves from one time to another time, then those times must exist (or permanently remain in existence) for substances to move toward and away from. If moments permanently

remain in existence, however, then they are simultaneous and sempiternal and so are not successive, unless one accepts McTaggart's definition of "earlier than" with the subsequent vicious infinite regress to follow.

On the other hand, if past times no longer exist and future times do not yet exist, then the notion of passing from one time to another makes no sense, since there are no times or a temporal series through which an object moves. If a substance *comes to exist* at a certain time, *it is moving towards something* that already exists "waiting" for the substance to arrive. A substance cannot move to a time and thus *come to exist at that time* unless there is *something* it is moving toward. The best it can do is *come into existence*, through absolutely becoming, at a time that also comes into existence. That would preserve presentism, but it would do away with temporal passage because the notion of moving successively *from* one time *to* another has no ground if there does not exist a temporal series, that is, if only the present time exists.

Ingthorsson claims that if there is no passage, as on the B-theory, then everything remains permanently at its own temporal position. But that implies that without passage the world is a *totum simul*. The result is that there are no temporal relations. However, McTaggart's point is that temporal passage requires succession. Both the presentist and the R-theorist reject temporal passage as tensed property change. The Russellian rejects it because there are primitive temporal relations whose terms do not exemplify A-properties. Ingthorsson rejects tensed properties and R-relations (cross-temporal relations) because the past and the future do not exist but puts nothing in their place. Therefore, succession has no ontological ground in his universe and therefore, the positions that his substances move through are not temporal positions or times, but spatial positions that are sempiternal or timeless positions. Certainly, they are not successive.

Change for Ingthorsson is "the objective loss and acquisition of properties by an enduring portion of matter. When something changes a qualitative state ceases to exist as another begins to exist, and never is there a cross-time relation between two qualitative states of the same substance existing at different times. [...] Change is "one state goes out of being while another begins to be" (Ingthorsson 2016, pp. 135–136, [9]). However, if the time at which a qualitative state of a substance wholly present comes to exist is simultaneous with the substances' arrival, and a qualitative state of that "same" substance ceases to exist at

the same time as the substances' arrival, then it is not the same substance that loses and acquires a qualitative state. If a time comes into existence absolutely, then everything at that time must also come into existence absolutely. There is no temporal passage from one time to another, but just creation *ex nihilo* at that time. For if there is no passage, no succession of times though which substances move, then not only the qualitative state, but the substance having that qualitative state, goes out of existence and the substance that comes into existence with a qualitative state is not the same as the substance that ceased to exist with a different qualitative state. Thus, there is not a single substance that changes from one present to another.

Ingthorsson claims that,

The alterations that take place are a question of qualitative states coming into and going out of being, and they are provoked by the influence exerted between different portions of matter. Here we find presentism thoroughly embedded in a metaphysics of material nature. And it is the most sparse ontology I know of. (Ingthorsson 2016, p. 138, [9])

Indeed it is, or seems to be, a naturalist ontology where everything exists in space and time. This is reinforced by his claim that "The core idea of presentism, as standardly formulated, is that the concretely existing present is meant to ground everything" (Ingthorsson 2016, p. 135, [9]). How, then, can there be a succession of times that substances pass through? Surely Ingthorsson cannot ground the succession of times in a concretely existing present unless he accepts McTaggart's definition of succession that we have seen, leads to a vicious infinite regress, that is, McTaggart's paradox. For the R-theorist, on the other hand, in order to "ground everything" we must recognize not only the concrete particular existent, but the abstract non-spatial and non-temporal realm. Thus, the dispute between presentism and the R-theory is a debate between the naturalist and the ontologist à la Grossmann.

5 Conclusion

My understanding of McTaggart's refutation of the A-theory including presentism, also enables us to understand the overarching point of McTaggart's main argument for the unreality of time. After arguing for the

existence of A-change, he claims that the obvious reply to the attribution of incompatible A-properties/relations to events is that they have those properties successively. What, then, we must ask "does it mean to say that events or moments of time have A-properties successively?" His reply appeals to moments of time and A-properties $(has\ been,\ will\ be,\ and\ is\ now)$ as he later claims in his definition of "earlier than" in section 610. Obviously, that does not work, as he will subsequently show, since the passage of time involves different events/times successively becoming present. Thus, if succession is analyzed in terms of a single A_1 -series, or an A_2 -series of A_1 -series, or an A_3 -series of A_2 -series, the analysis either does not yield change, or yields a contradiction, that cannot be removed without appealing to succession and the subsequent infinite regress.

McTaggart summarizes his argument in the following passage:

The attribution of the characteristics past, present, and future to the terms of any series leads to a contradiction, unless it is specified that they have them *successively*. This means, as we have seen, that they have them in relation to terms specified as past, present, and future. These again, to avoid a like contradiction, must in turn be specified as past, present, and future. And, since this continues infinitely, the first set of terms never escapes from contradiction at all.

(McTaggart 1927, sect. 332, p. 22, [emphasis added], [14].)

We see then that his argument in 1927 does not depend on the temporal parity as Ingthorsson understands it, or the *a priori* metaphysics of 1921, but on his analysis of succession that is not argued for but assumed. In a footnote to the passage just quoted, McTaggart makes it clear that the vicious infinite regress arises from the attempt to avoid the contradiction in the attribution of incompatible A-characteristics to the terms in each A_1 -series by appealing to succession and then analyzing succession in terms of incompatible A-characteristics. This passage is important enough to quote at length:

It may be worthwhile to point out that the vicious infinite does not arise from the impossibility of *defining* past, present, and future, without using the terms in their own definitions. On the contrary, we have admitted these terms to be indefin-

able. It arises from the fact that the nature of the terms involves a contradiction, and that the attempt to remove the contradiction involves the employment of the terms and the generation of a similar contradiction.

(McTaggart 1927, sect. 332, fn. 1, p. 22, [emphasis added], [14].)

To conclude, I believe to have shown three things. First, that McTaggart's argument against Russell begins by assuming his analysis of the "earlier than" relation as stated in 1927 section 610, and he uses that analysis in his main argument against the B-series. This has given rise to an A-theoretic misunderstanding that distorts the R-theory. Second, McTaggart's analysis of "earlier than" undermines all versions of the property and the presentist versions of the A-theory, as his argument for the unreality of the A-series sought to demonstrate. Third, since McTaggart is clear that the passage of time and the possibility of change requires *succession*, I conclude that McTaggart has shown that given his analysis of "earlier than," time and change are unreal. Therefore, to preserve the reality of time and change, we must reject McTaggart's analysis of "earlier than," recognize that it presupposes a *primitive* notion of succession and assert that the relation that generates change is the simple, unanalyzable R-relation of *earlier than*.

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