Theodicy and Reason
Logic, Metaphysics, and Theology in Leibniz's *Essais de Théodicée* (1710)
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On What There Already Is
Leibniz's Theory of Time

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Abstract This paper contains an investigation of Leibniz's ontology of time. Standard debates on Leibniz's theory of time hinge upon the question whether the nature of time is relative or absolute and focus mainly on the Leibniz-Clarke correspondence. Focusing instead on *Theodicy* and referring to the contemporary frame and debate, I address some different questions: whether Leibniz is an A-theorist or a B-theorist, or an advocate of a hybrid form of an A/B theory; and whether he is a presentist (who thinks that only present things and states of affairs exist) or an eternalist (who claims that past, present and future things and states of affairs are equally real). After careful analysis of several passages that seemingly support a presentist interpretation, I conclude that under the most charitable interpretation Leibniz should be considered as an eternalist, and precisely as a *dynamical* one. I further argue that Leibniz's peculiar views on modality mirror this hybrid theory of time.

Keywords Metaphysics of Time. Spotlight View. Eternalism.

Those who mention Leibniz's theory of time seldom go beyond contrasting his relational account with Newton's absolute or substantive one – the one Clarke advocated in his correspondence with Leibniz. My analysis, however, is devoted to another issue: how does Leibniz account for time and change in general? In particular, my aim is to apply the conceptual repertoire of contemporary analytic philosophy to Leibniz's metaphysics and so cast new light on it. So a) I will first outline the main positions in the contemporary philosophy of time, sketching their analogies as I go with the main positions in the contemporary philosophy of modality. Then b)

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I will tackle Leibniz's metaphysics and show that, oddly, it violates these very analogies between time and modality by joining positions that are normally considered separated and dividing positions that are frequently considered associated. Next c) I will pose the question of whether, to use the contemporary jargon, Leibniz should be considered an eternalist or a presentist. I am aware, of course, that each option can be supported by a reasonable interpretation of the relevant texts; there are probably no knockdown arguments for disentangling this question. Nonetheless, at the end of my analysis d) I will propose to assimilate Leibniz's complex theory of time to what is today called the 'moving spotlight view,' a position that has been sketched as a conceptual possibility but scarcely ever endorsed – not, at least, in the context of analytic philosophy.[1]

1 The Deepest Metaphysical Disagreement on Time

Before considering Leibniz's thought, it is necessary to define some of the concepts and to sketch some of the theories of contemporary metaphysics.[2] (Those who are already familiar with the contemporary debate on time may skip the next two paragraphs.) The contemporary debate can be summarized, according to one leading scholar, as follows: «the following questions go to the heart of the deepest metaphysical disagreement about the nature of time: 1. Are there objective differences between what is past, present and future? 2. Are present events and things somehow more 'real' than those wholly in the past or future?» (Zimmerman 2008, p. 211). The first question concerns the ontological status of the three temporal dimensions, whereas the second question concerns their phenomenological features. In a certain sense in what follows I want to forward these questions to Leibniz. According to another scholar, «the following theories exhaust the options: presentism, static eternalism, and dynamic eternalism» (Crisp 2003, p. 218). «Presentism is the view, roughly speaking, that only presently existing things exist» (Hinchcliff 1998, p. 576), whereas past things and future things do not exist at all. The opposite view is eternalism, which comes in static and dynamic varieties. Static eternalism holds that change itself is an illusion: 'becoming' is nothing more than the outcome

1 An exception among analytic philosophy are Skow 2009, who has re-examinated the doctrine in Skow 2015, Cameron 2015 and Deasy 2015. Moreover Emanuele Severino's entire philosophical oeuvre is another notable and isolated exception (see for instance Severino 1972).

2 Due to lack of space references are reduced to a minimum. Anyway in almost every survey of contemporary metaphysics, the reader can find one or more chapters outlining the contemporary debate in the philosophy of time (and in related questions, such as that of modality), sometimes with great skill.

of a comparison between two incompatible states of affairs that take place at different times. Dynamic eternalism, on the other hand, makes room for some form of genuine change.

To tell the truth, the taxonomy offered by Crisp can be expanded, since there are hybrid positions other than that of dynamic eternalism as it is conceived by him. He alludes to what is called the «growing block universe theory»[3] which combines some aspects of eternalism with some features of presentism. This theory shares with eternalism the view that present and past things alike exist; however, it shares with presentism the view that future things do not exist at all. On the contrary, new things continuously come into existence and 'pile up' subsequently to those things that already exist. The result is that, as the leading edge of reality shifts progressively toward the future, the universe increases in size: what is no longer present, rather than fading into nothing, continues to exist.

However, I want to consider a second form of dynamic eternalism – one that preserves aspects of both presentism and eternalism by looking at time on two different levels. There are reasons to think that this position can fruitfully account for the complexities of Leibniz's theory of time. I will sketch this form of dynamic eternalism at the end of my paper.

2 Three- and Four-dimensionalism

Another fundamental question is that of which objects are the proper subjects of predication. In answering this question, philosophers of time have felt compelled to choose between *three-dimensionalism* (or *endurantism*) and *four-dimensionalism* (which comes in two varieties). According to three-dimensionalism, objects are wholly present at each moment of their existence: they *endure* through time. According to four-dimensionalism, on the contrary, objects possess *temporal parts* (or *counterparts*) spread out over time. According to three-dimensionalism, if I existed yesterday and I still exist today, I have been enduring over time by remaining numerically identical: I am substantially the same person I was yesterday. According to one version of four-dimensionalism, on the contrary, I am an entity that has not only spatial parts – my head, my hands, and so on – but also temporal parts, and the part located yesterday does not extend into today.

To complete the survey, I must mention another version of four-dimensionalism, the stage *view* also called *exdurantism*.[4] According to exdurantism, what existed yesterday is not a part of me but is, rather, one of my

3 This peculiar position was advocated by Broad 1923 and, more recently, Tooley 1997.

4 As far as I know, this label was introduced by Haslanger 2003, p. 319. On the stage view see also Sider 2001.

counterparts, 'another me'. Because of the enormous similarity between that object and me, the I of today and the 'I' of yesterday are gathered together in a set the unity of which is almost the unity of a single object.

3 Analogies Between Time and Modality

There exist some analogies between these ontologies of persistence, on the one hand, and the ontologies of modal logic, on the other hand. In the field of modality, one of the main distinctions is that between *actualism* and *possibilism* (or *modal realism*).[5] Underlying these doctrines is a deceptively simple question: what makes it true that things could have been different than they actually are? What makes it true, for example, that I could have failed to be born, or that I could have had a twin? According to some philosophers, the actualists, what makes any modal proposition true are merely actually existent things and their combinatory properties. So non-existent things and possible states of affairs that failed to exist – in sum, possible worlds – are merely *abstract* entities. These entities, of course, exist: they are possible rearrangements of concretely existing objects. But the *ways* in which these things might be rearranged does not concretely exist. So possible circumstances, possible worlds, are part of the ultimate furniture of the unique world – but, unlike me and the fact that I am now sitting, they are not concrete. There are many versions of actualism, but this is roughly the tenet that they all have in common.

Modal realism, or possibilism, provides a different explanation of what makes any modal proposition true. The disagreement concerns the ontological status of possible worlds. According to a modal realist, possible worlds exist no less than does the actual world. For example, according to the theory articulated by David Lewis – perhaps the most extreme version of modal realism – there is a plurality of possible worlds, and to say that I could have been in the mountains and skiing is tantamount to saying that there is another world in which a certain counterpart of me is actually in the mountains and skiing. This possible world is no less real (concrete) than the actual one. Does this mean that it is *somewhere*, albeit indefinitely far from here? No, it does not: other possible worlds are spatially and temporally *discontinuous* with our world such that, however far I travel in space and even in time, I will never meet the other *me* who is now skiing. What is actual rather than possible and vice versa is merely a matter of where – that is, in which world – we are. It is an indexical question: the inhabitants of a given world think of their world as actual and the other

5 The spectrum of positions in the semantics of modality is much wider than I have indicated.

worlds as merely possible, and vice versa. But all the worlds have the same ontological status: they are all equally real from an absolute point of view. Everything is actual somewhere – that is, in some world.

Analogies between modality and time are deep. Roughly speaking, actualism corresponds to the presentist brand of three-dimensionalism. According to the former, only actual things are real, whereas possible states of affairs are abstract entities – to be explained, perhaps, in terms of concrete things and their combinatory properties. According to the latter, only things that exist in the present are real – though among these things are, again, abstract entities.

The challenge for presentism is accounting for truths about the past and future. In general, every proposition is grounded on reality – is, in other words, made true (or false) by reality. If a proposition concerns the past, however, there is no concrete reality which can now make that proposition true (or false): in presentist ontology, past entities do not exist. This is considered a master argument against presentism. A presentist, however, contends that she can avail herself of abstract entities – specifically, those that were instantiated in the past – in order to account for the truth-value of past truths. These entities can be characterized in various ways (possible worlds, Carnap's 'state descriptions', sets of propositions). However they serve as *simulacra* of past reality whose explanatory role is to *replace* the reality that has become past in making true (or false) the corresponding propositions.

The analogy with actualism is pretty clear: according to actualism, only actually existing entities exist, and possible circumstances are merely abstract entities that belong to the actual world – just as, according to presentism, only presently existing entities exist, and propositions about the past are made true (or false) merely by abstract entities that belong to the present world. But there is an equally strong analogy between eternalism, especially in its variant of exdurantism, and possibilism. According to an eternalist, past and future entities and states of affairs are, despite their temporal distance from us, as real as those of the present: dinosaurs exist not as abstract entities – as a presentist would claim – but rather as concrete things located elsewhere in time. Just so, according to the possibilist, merely possible entities and states of affairs exist as concretely as do actual entities and states of affairs – albeit in other possible worlds.

According to exdurantism, moreover, for an entity to persist is for there to be many counterparts of it spread out over time. Analogously, according to modal realism – at least as articulated by Lewis – we would find, in those possible worlds that account for the ways a thing could have been, the counterparts of that thing. Put roughly, modal realism and eternalism, especially in its version of exdurantism, can be mapped onto each other: one need only exchange worlds and times.

4 Leibniz's Positions on Temporality and Modality

Let's come back to Leibniz. He somehow merges these positions, though only by creating some asymmetries. Leibniz's notion of an individual substance is such that each one instantiates a *complete concept* – one that includes all that is true of that substance. Although Leibniz articulates several slightly different versions of this idea, it is of all of them true, or at least according to Leibniz's correspondence with Antoine Arnauld, that one of its consequences is that the *variation* of any property of an object whatsoever, even of the most contingent and irrelevant feature, implies a variation of its very substance, a replacement of it. According to Leibniz, innumerable properties are contingent, of course, and so it should not be necessary for a substance to possess them. But this fact does not mean that a substance could have failed to possess one or more of its properties: at most, it implies that there could have existed another substance identical to the given substance except for those properties. In other words, suppose that it is possible for me to be in the mountains. Of course, if I am in a city, then I am not in the mountains – and whoever is now in the mountains is not me. Moreover, it is not the same for me to be in a city rather than to be in the mountains. This is beyond any doubt. The question, however, is whether I, who am in a city, would have been the same person had I gone to the mountains, or if, on the contrary, the one who would have gone to the mountains would have been another person, numerically different from me.

Leibniz, supported by his theory of the complete concept, argues resolutely in favor of the second option. Suppose that I am in a city, as indeed I am. According to Leibniz, this fact is contingent, for I could have been in the mountains; but this is true only in the sense that a counterpart to me would be now in the mountains. There is, in other words, a real and irreducible numerical difference between him and me. As a consequence, to say that one of my properties is contingent and thus that something else could have been the case is tantamount to saying that there could have existed another individual, very similar to me, of whom what is actually false of me – such as my being in the mountains – would have been true.

An individual, indeed, is determined by the exhaustion of every predicative possibility, negative or positive, concerning every property. In other words, Leibniz identifies the *principle of determination* of a substance with respect to a predication – a principle that can be assimilated to the principle of the excluded middle – with the *principle of individuation*: an individual substance is given only by means of the fullest predicative determination – one that exhausts the infinite set of properties compatible with it (the *requisita rerum*). Granted this identification, which depends on Leibniz's account of truth as *inherence*, it is necessary that *the variation of any property whatsoever implies the variation of the complete notion*

of a substance (and so the replacement of that substance with another extremely similar one) rather than the variation of merely accidental characteristics of that same substance.

5 Modal Counterparts and Diachronic Identity

This theory, well known to Leibniz scholars, is closely akin to modal realism's counterpart theory. Oddly, however, Leibniz does not embrace possibilism – does not embrace, in other words, a realistic theory of possible worlds. However, Leibniz is well known as the one who introduced the very idea of possible worlds:[6] in his *Theodicy*, for instance, he defines a *world* as «the whole succession and the whole agglomeration of all existent things' such that 'there is an infinitude of possible worlds» (*Théodicée*, § 8, GP VI, p. 107).[7] Moreover, Leibniz claims that, since «all is connected in each sequence» (*Théodicée*, § 84, GP VI, p. 148), God did not decree this or that thing in particular: rather, he issued «only one total decree, which is to create such a world. This total decree comprises equally all the particular decrees» (*Théodicée*, § 84, GP VI, p. 148). There are no local variations, but only global variations, among possible worlds.

Possible worlds are infinite in number – a result of the infinite possible combinations of things (cf. *Théodicée*, § 225, GP VI, p. 252). Nonetheless Leibniz's possible worlds are *abstract*, *logical* entities. As opposed to real, concrete things, possibles exist only in God's mind as objects of his thought:

> [W]ithout God, not only would there be nothing existent, but there would be nothing possible… In the region of the eternal verities are found all the possibles… Moreover these very truths can have no existence without an understanding to take cognizance of them; for they would not exist if there were no divine understanding wherein they are realized, so to speak. (*Théodicée*, § 184, § 189, GP VI, pp. 226-227, 229)

What is then the ontological status of possible worlds for Leibniz? Only one of them is real, the actual one, and this is due to its intrinsic characteristic of being the best. The other worlds are not real at all (unlike it would be the case for a modal realist like Lewis). So, in this sense, Leibniz's theory is akin to actualism. The «land of possible realities» (Letter to Arnauld, 4/14

6 The idea of possible worlds seems to derive from the metaphor suggested by the Church fathers that compares God to an architect who designs creation. Thomas Aquinas, Henry of Ghent, and Duns Scotus suggested a similar idea.

7 I follow Huggard's translation (cf. Leibniz 1952).

July 1686, GP II, p. 55, Leibniz 1988, p. 111) is something existent only in God's *mind*: the possibles «have no other reality than what they have in the divine understanding and in God's active power» (to Arnauld, 4/14 July 1686, GP II, pp. 54-55; Leibniz 1988, pp. 110-111). God does not *create* the possibles, of course, since what is possible is such only inasmuch as it is non-contradictory and it is conceivable. Thus the possibles depend only on eternal truths – specifically, on the principle of identity – and never on the divine will.

Which of the infinite possible worlds is actual, on the other hand, depends on both the features of that world and the divine will: God, in accordance with his wise goodness, creates the best of all possible worlds. One might ask to what extent this act is really free rather than necessary since God is omnibenevolent. Leibniz maintains that it is a question of *moral* and never of *metaphysical* necessity, since the opposite, the possibility that God not act in that way, remains logically possible. This is, at any rate, what Leibniz claimed, though several scholars showed remarkable difficulties in Leibniz's account of contingency (in a nutshell: if God is omnibenevolent, he *must* create the best of the possible worlds) – so much as Leibniz's position runs the risk of relapsing into a strict necessitarism – indeed, into a form of Spinozism.[8]

6 Complete Concepts and Temporal Truths

According to the principle of sufficient reason – according, that is, to the conception of truth as inherence – «the concept of an individual substance includes once for all everything which can ever happen to it» (Leibniz, *Discourse on Metaphysics*, § 13).[9] This means that, supposing that we are talking about someone, «as the individual concept of each person includes once for all everything which can ever happen to him, in it can be seen, a priori the evidences or the reasons for the reality of each event» (Leibniz, *Discourse on Metaphysics*, section heading). The complete notion is like a 'predicative selector' in the following sense. Given the set P of all the possible predicates $p_1 \ldots p_n$ (the *requisita rerum*), one can build a set S whose elements are the sets s_1, $s_2 \ldots s_n$, each of which contains nothing but one of the predicates belonging to the set P and its negation.[10] So, for

8 See, for instance, Adams 1994, especially the first chapter.

9 Here and below, the *Discourse on Metaphysics* is quoted from Leibniz 1988, pp. 53-93; GP IV, pp. 427-463 and, for the section headings, GP II, pp. 12-14.

10 Probably in Leibniz's framework the ascription of a negative predicate (S is not-P) does not exactly amount to a negative predication (S is not P). Anyway this is a subtle distinction from which I can set aside (cf. Bernini 2002, p. 25 *passim*).

instance: $s_1\{p_1, \sim p_1\}$, $s_2\{p_2, \sim p_2\}$... $s_n\{p_n, \sim p_n\}$, and $s_x \epsilon S$. The complete notion picks up in each set s_x (belonging to S) at least and at most one of its elements – that is, either a predicate *p* or its negation – thereby exhausting the set S. The notion is not only complete, since it exhausts the entire pool of predicates, but also coherent. On the one hand, if it lacks an element, then it is not complete: for a certain predicate it possesses neither that predicate nor the negation of it, and so it does not individuate a substance. On the other hand, if it is *over*saturated, it contains a contradiction: for a certain predicate *p* the complete notion contains both its affirmation and its negation, and so it does not individuate a substance – since, after all, there are no impossible individuals. In this way, the complete notion encompasses *all what is ever true* of something, so that God «seeing the individual concept, or hæcceity, of Alexander, sees there at the same time the basis and the reason of all the predicates which can be truly uttered regarding him; for instance that he will conquer Darius and Porus» (*Discourse on Metaphysics*, § 18). In a work contemporary to the *Discourse*, we can read that «all propositions into which existence and time enter have as an ingredient the whole series of things, nor can 'now' or 'here' be understood except in relation to other things» (A VI, 4, p. 1517; Leibniz 1973, pp. 98-99). Some pages later, Leibniz states that «a predicate, even if future, is already truly in the notion of the subject, and [...] God already perceives all its future accidents from the perfect notion he has of it» (A VI, 4, p. 1520; Leibniz 1973, p. 102).

This account of individuals, at first glance, raises some problems. For instance, Alexander will conquer Darius and Porus; but before this happens, it is false to state that he has conquered them. In fact, «the state of something is given if some contingent proposition having as subject that thing is true» (A VI, 4, p. 569). In this sense, while it is always true to say that Alexander is a rational animal – which is indeed an essential property, one belonging to the *ratio generalititatis* of Alexander – it is *not* always true that Alexander is a king or that he has conquered certain enemies. These statements are true at certain times, which reveals that these truths are contingent – even though, on the other hand, «nothing accidentally inheres to a complete term since all its predicates can be derived from its nature» (A VI, 4, p. 306).

So two difficulties are looming. For one thing, the complete notion seems to prohibit any *change over time*, since a predicate is either contained in the complete notion 'once and for all' or it is not; for another thing, it seems that there are no *contingent attributes*, given the role that every predicate or its negation plays in defining a substance. In short, to put the issue as a question: if the accidental properties are part of the complete concept of a certain substance, how could it not be always true that, for instance, Alexander is a king rather than not? Leibniz poses this question to himself after he has sketched his notion of the complete concept:

> It is common to every true affirmative proposition – universal and particular, necessary or contingent – that the predicate is in the subject, or that the notion of the predicate is in some way involved in the notion of the subject, and that this is the principle of infallibility in every kind of truth for him who knows everything *a priori*. But this seemed to increase the difficulty. For if, at a given time, the notion of the predicate is in the notion of the subject, then how, without contradiction and impossibility, can the predicate not be in the subject at that time, without destroying the notion of the subject? (A VI, 4, p. 1654; Leibniz 1973, p. 107)

A solution to this problem, at least as it has been formulated here, has been given by certain versions of contemporary eternalism: predicates – or, better, properties – are disguised *relations* to times. In other words, the difference concerns the adicity (the number of saturable places, roughly speaking) of a contingent predicate. One and the same banana can be and be not yellow at different times while remaining the same banana (in virtue of the Leibnizian principle of the *indiscernibility of identicals*)[11] since *being-yellow* is not a monadic property (directly possessed by bananas), but rather a two-place relation (as *being a friend of* is often assumed to be): one place is saturable by an object, the other by a time. So, just as one and the same person can without any contradiction be a friend of one person but not of someone else, so the very same banana can be yellow for a certain time and not yellow at another time. Thus the banana *always* bears two predicates – *being yellow-at-*t_1 and *not being yellow-at-*t_2 – since the two predicates differ from each other more or less as *being yellow* does from *being bright*. This solution, seminally advocated by Russell and criticized both by McTaggart and, more recently, by Lewis – albeit for different reasons[12] – can, however, hardly be endorsed by Leibniz: time itself is, according to Leibniz, a *relation* rather than a substance – as he claims in many passages, most polemically in his correspondence with Clarke. And *relations* are not things in themselves: they supervene on their *relata*, substances, and the monadic properties thereof, according to Leibniz. So it seems that there is no room in Leibniz's theoretical framework for conceiving of predicates as disguised relations to times (cf. Cover, O'Leary-Hawthorne 1999, p. 216 *passim*).

To tell the truth, though, one can find in Leibniz's theory of time clues in favor of such a theory. In his correspondence with Clarke, for instance,

11 This principle is weaker than the more famous principle of the *identity of indiscernibles*. According to the former, if two things are one and the same thing, they must share all their properties. According to the latter, if two things share all the same properties, they are one and the same thing.

12 This is the contemporary dispute concerning what are called *temporary intrinsics* (or *temporary intrinsic properties*).

Leibniz sketches a relational theory of space in which he makes room for a notion of 'place' as what can be individuated by means of replacing one object by another, provided that the relations with other objects borne by both the object and its substitute persist unchanged (Fifth Letter to Clarke, § 47; GP VII, p. 400; Leibniz, Clarke 2000, pp. 45-47). It has been claimed that Leibniz defines 'place' in terms of 'same place' which does not presuppose any independently defined notion of 'place' (Winterbourne [1982] 1994, p. 64). On the basis of the analogy between space and time, it could be argued that Leibniz accounts for times as he accounts for places – that is, in terms of 'same times' in the order of temporal succession; this order of temporal succession, abstracted from the objects located within it, would then be time proper. This account of times as 'places' in the order of temporal succession is, however, probably too weak to play the required explanatory role in Russell's aforementioned eternalistic theory.

Nonetheless, several scholars have, despite the many difficulties, moved down this road. According to Benson Mates, every predicate of a substance inheres in the complete notion of that substance, albeit not in a simple way. Rather, the complete notion contains 'stages' of the substance, and only these are the proper subjects of the inherence of predicates. Mates, though aware of the many exegetical and theoretical difficulties, introduces the phrase «'the *t* stage of M' as short for 'the state of the monad M at the time *t*'» (Mates 1986, p. 88; cf. pp. 141ff.). Thus it is only the '335 B.C. stage of the monad *Alexander*' which properly contains the attribute 'king', whereas this attribute is contained in the complete concept of the entire monad solely in a derivative sense. In such a manner, the complete concept is a collection of *temporalized* (or *temporally indexed*) stages. This account seems to be plausible and palatable as it solves several problems; on the other hand, however, it makes the Leibnizian notion of substance very akin to a four-dimensional object made up of stages and extended over time – which Leibnizian substances seem not to be.

In this regard, one might consider the Leibnizian thesis of the *continuous creation* of a substance.[13] According to Leibniz «a substance will be able to commence only through creation and perish only through annihilation» (*Discourse on Metaphysics*, § 9), whereas «God alone is the primary unity or original simple substance, of which all created or derivative Monads are products and have their birth, so to speak, through continual fulgurations of the Divinity from moment to moment» (*Monadology*, § 47; GP VI, p. 614; Leibniz 1969, p. 647). A *fulguration*, an outflashing (or burst, as Leibniz says elsewhere) is a creation from nothingness. But a creature needs to be maintained in existence at each moment that it persists, since

13 This is a tenet of medieval philosophy (see for instance Aquinas, *Contra Gent.* III, 65; *S.Th.* I, 104; *De Potentia*, q. 5); it is endorsed by Leibniz and incorporated into his metaphysics.

the reason for its existence at a given moment does not extend to the succeeding moment. So the creature must be continuously *re*created if it is to persist over time. The passages where Leibniz articulates this doctrine are striking. The question is «*whether conservation is a continued creation*» (*Théodicée*, § 383) or not, and the answer is «that the creature depends continually upon divine operation, and that it depends upon that no less after the time of its beginning than when it first begins. This dependence implies that it would not continue to exist if God did not continue to act» (§ 385).[14] One passage from his letters is especially striking:

> The duration of things, or the multitude of momentary states, is an accumulation of an infinity of bursts ['*éclats*'] from the divinity [...] which strictly speaking do not have any continuous passage from one state to the next. This proves precisely that [...] the conservation of things is a continual creation. (Leibniz to Sophie, October 31, 1705; GP VII, pp. 564-565; Leibniz 2011, p. 339)

But what does this doctrine – that of the duration of things depending upon an infinite *accumulation* of bursts – actually mean? Does Leibniz have what one might call a *pointillist* conception of persistence? To what extent should this ontological pointillism be taken seriously? Perhaps it is merely a response to certain paradoxes concerning motion, space, and continuity: Zeno's old paradoxes of motion are lurking in the background, and Leibniz tackles them. But – however fascinating this doctrine is – I prefer to stand apart from the question. For whatever the doctrine of continuous creation might mean, exactly, I do not think that it implies that, at every moment, a *new* substance *numerically different* from the previous one is created – even one qualitatively identical or extremely similar to it.[15] Roughly speaking, two considerations tell against this interpretation: first, the idea that individuals have temporal counterparts goes against several important Leibnizian claims that I will consider soon, and second, the view that a substance has temporal parts is incompatible with the fundamental Leibnizian doctrine of the *simplicity* of every substance, which can be considered one of the cornerstones of his metaphysics. After all, if a substance is metaphysically simple, then it has no parts, and *a fortiori*

14 As I said, Leibniz insists upon this thesis in various texts, repeating again and again with little variation that 'conservation is the same as continuous creation': see A VI, 4, pp. 1382, 2311, and esp. 2319; GP III, p. 566; *Discourse on Metaphysics*, § 14 and § 30. «*God is the conservator of everything*, i.e. things are not simply produced by God when they begin existing, but moreover they would not continue existing unless a certain continuous action of God terminated in them, on the cessation of which they would cease» (*De libertate, fato, gratia Dei*, A VI, 4, p. 1596).

15 For similar concerns, see Cover, O'Leary-Hawthorne 1999, chap. 6, p. 251 *passim*.

it has no *temporal* parts; therefore, no Leibnizian substance can be assimilated to a 'temporal worm', as perduring entities (those that persist through time by having temporal parts) are sometimes called. In fact, if an entity is a temporal worm, the proper subject of any predication is only a certain temporal part of that entity, whereas the entity as a whole is the subject of predication only in a mediate and derivative sense[16] – but all this is incompatible with Leibniz's account of true predication as inherence (i.e. as total or partial identity between subject and predicate). Anyway, it is not my task here to analyse the doctrine of continuous creation; I think, at any rate, that a good reading of it would require that God continuously keeps *the very same individual* in existence over time – that, in other words, God bestows extended existence over time to a substance rather than creating a new substance at every moment.

Robert Adams, in reconsidering Mates' thesis, suggests a remarkable variant of it and claims that «replacing enduring substances with their momentary stages as the primary subjects of properties is as contrary to Leibniz's way of speaking as imposing a temporal qualification on the properties» (Adams 1994, p. 73). He suggests, therefore, that what must be temporally indexed is neither the properties nor the bearers thereof but rather the *copula*, i.e. what joints them together in forming a state of affairs: «Neither '*A* is B_t' nor 'A_t is *B*', but '*A* is_t *B*', would express the deep structure of a typical Leibnizian predication» (Adams 1994, p. 73). This option is nowadays discussed under the label of 'copula-tensing';[17] it would probably be worth considering – together with the variant of it called 'adverbialism', which avoids some of the difficulties of the copula-tensing strategy – as a viable way to represent in contemporary terms Leibniz's account of how things persist over time.

7 Leibniz the Three-dimensionalist

As I have noted, there are analogies between temporal ontology and the ontology of modality. Roughly speaking, eternalism – especially in its exdurantist variant – matches modal realism and its counterparts theory, whereas actualism and its cross-world identity thesis fits ersatz presentism and endurantism. This is true even if it requires further qualification: there are several versions of the aforementioned doctrines. In Leibniz's theory, though, there seem to be salient *disanalogies* between time and modality. On the one hand, he embraces a modal theory that employs counterparts,

16 See Haslanger 2003, p. 331: «the perdurantist tells us that the candle (namely, the candle-worm) is itself never the proper subject of *being-bent* or *being straight*».

17 See Haslanger 2003, pp. 341ff. This theory was criticized by Lewis 2002.

yet he does not seem to espouse any form of temporal parts. On the other hand, he seems to be an actualist in modality but nonetheless not a presentist in the ontology of time – as one might expect an actualist to be.

In this regard, there is a passage, well-known to scholars, wherein Leibniz takes into consideration a theoretical option that we nowadays would consider the exdurantist variant of four-dimensionalism. Only he rejects it. The passage is contained both in a preliminary draft (the '*Remarques*') of a rejoinder to Arnauld and in the definitive version of the letter. Initially, Leibniz tackles the question of predicative variation within modality. He writes that, given an individual substance and its complete concept, the variation of any predicate whatsoever implies the replacement of the very individual – leading to both the thesis that there are infinite possible Adams and the consequence that, «if in the life of some person, or even in all of this universe, something went differently than it does, nothing would stop us from saying that it would be another person or another possible universe, which God had chosen. So it truly would be another individual» (to Arnauld, July 4/14, 1686, GP II, p. 53; Leibniz 1988, p. 109).

The related question of the identity of individuals across time is lurking in background. Leibniz seems to be inclined to believe that substances *endure* over time: one and the same individual persists in different, incompatible circumstances instead of being replaced by substances much like it – its temporal counterparts. In order to claim that substances are thus identical across time, «it must needs be that there should be some reason why we can veritably say that I perdure, or, to say, that the me which was at Paris is now in Germany, for, if there were no reason, it would be quite right to say that it was another» (*Remarks upon Mr. Arnauld's Letter*, GP II, p. 43; Leibniz 1908, p. 112). It is interesting to notice that, on the one hand, Leibniz embraces counterparts theory in modality but that, on the other hand, he refuses to apply such a theory to the question of identity over time. Leibniz, in other words, rejects the analogy that, just as an Adam who had done something differently from what he really did 'truly would be another individual', so also the Leibniz who previously was in Paris was another Leibniz different from the Leibniz who was later in Germany. I want to emphasize this asymmetry between time and modality: while the Leibniz who *could have remained* in Paris would have been different from the Leibniz who actually came back to Germany, the two Leibnizes, the earlier Parisian Leibniz and the later German Leibniz, are one and the same Leibniz, capable of *enduring* through time while remaining numerically identical with himself. Indeed Leibniz states that «there must be an a priori reason […] which makes true that it is I who was in Paris and that it is still I, and not another, who am now in Germany. Consequently, that notion of myself must connect or comprehend the two different states. Otherwise it could be said that

it is not the same individual, even though it appears to be» (GP II, p. 53; Leibniz 1988, p. 109). Leibniz is an *endurantist* (insofar as this label can be applied) after all.[18]

8 Leibniz the Eternalist

Leibniz's ontology, as Russell already pointed out in his seminal essay of 1900, seems to be *dynamic*. Associated with the complete concept of a substance is its *function* such that the various predicates of a substance progressively 'come out'. Leibniz wrote to De Volder «that there is a persisting law, implying the future states of a substance, that – if what I claim is right – constitutes the very persistence of that substance» (GP II, p. 264; translation mine). In other words, the persistence of a substance is the very law of its development. A substance is a subject enduring over time, while its states succeed over time. What this means is not completely clear. Of course, Leibniz does not think that, at different times, there are numerically different substances, or counterparts: he is not an eternalist four-dimensionalist – he is not, in other words, an exdurantist. Might he be a presentist three-dimensionalist? Well, the complete concept of an individual substance – and, derivatively, of an entire world, given the entanglement of each substance with every other substance – encompasses all of the stages or phases of that substance, enclosing both past and future truths: «we see also the possibility of saying that there was always in the soul of Alexander marks of all that had happened to him and evidences of all that would happen to him» (*Discourse on Metaphysics*, § 8). Leibniz speaks of 'marks' and 'evidences' ('*restes*', '*marques*') of the past and of the future, which seem to correspond, respectively, to what 'remains' of a reality once it has become past and to what 'anticipates' what will be the case before it comes into existence.[19]

A presentist, as I noted, can avail himself of abstract entities, of some sort of simulacrum of the past or future – a possible world or something similar – in order to explain how a proposition concerning the past or the future can be true *now*. Such a presentist endorses *ersatz* presentism (or one of its variants having the same explicative power). That there exist 'marks' and 'traces' of the past and that the future can be anticipated by means of 'evidences' and 'signs' is a position compatible with presentism. In support of this interpretation one can put forward another passage from

18 Anfray 2003, esp. § 5, p. 99 seems to arrive at the same conclusion. This article is remarkable also for the analysis that it provides of some of Leibniz's little-known textual passages.

19 For another analysis of the 'marks' of the past and the 'evidences' of the future, see Cover, O'Leary-Hawthorne 1999, chap. 6, pp. 242ff.

the *Discourse* wherein Leibniz mentions the case of Caesar, in whose complete concept was contained from the beginning all of his subsequent acts, including his becoming «perpetual Dictator and master of the Republic and [overthrowing] the liberty of Rome» (*Discourse on Metaphysics*, § 13). This could induce one to think that, since it is already true that all these things will happen, they will *necessarily* happen. Leibniz's first answer, designed to thwart metaphysical necessitarianism, refers to future contingents: he remarks that they «have no reality save in the understanding and will of God» (*Discourse on Metaphysics*, § 13). This claim is interesting because it affirms that future things and circumstances are not real in themselves but only insofar as they are in God's mind – the 'land of the possibles', as we saw before. This could induce one to accept at face value Leibniz's endorsement of presentism, according to which past and future things have the ontological status of possible things, of possible worlds – as conceived, that is, within the actualist framework endorsed by Leibniz. Indeed, of the past and of the future we have 'marks' and 'signs', respectively, just as the typical presentist maintains in his substitutive or simulacra theory, which is usually called *ersatzism*. Of course, the divine will distinguishes a certain possible world, better than all of the others, since this is the one that ought to be created.

There are, however, other reasons – both theoretical and textual – not to consider Leibniz a presentist. For instance, in the *Theodicy* he claims that «for God's knowledge causes the future to be for him as the present, and prevents him from rescinding the resolutions made» (*Théodicée*, § 28, GP VI, p. 119). Frequent statements of the same tone can be found in both the early and the late works of Leibniz. For instance, in a passage of a text presumably of 1670-1671 – one that discusses the relationship between human freedom conceived as mere *libertas indifferentiae* and divine foreknowledge – Leibniz claims with regard to God that «future things stand before him just like present things» (*On the Omnipotence and Omniscience of God and the Freedom of Man*, A VI, 1, p. 545; Leibniz 2005, p. 25).

This view seems to be in keeping with the fact that, for Leibniz, the issue of future contingents does not at all contradict the principle of bivalence (unlike some interpretations of Aristotle's position): future-tensed propositions have truth values just as much as past- or present-tensed propositions – as Leibniz repeatedly says in the *Theodicy*. Moreover, in this work he wonders «whether the past is more necessary than the future» or not (*Théodicée*, § 170, p. 233; GP VI, p. 215). This question touches upon the so-called temporal or historical necessity of the past, since the past, though not necessary from a logical point of view – since the opposite of a past state of affairs is not self-contradictory – seems nonetheless to be unchangeable: Aristotle, for example, notes that «what is past is not capable of not having taken place» (*Eth. Nic.*, VI, 2, 1039b 5), while the scholastics insist that *factum infectum fieri nequit*, a thing done cannot be

undone. The future, on the contrary, has not come into existence yet and so is, in a sense, nothing at all. Of course, if the past *is* more necessary than the future – regardless of any determinism – any eternalism is ruled out. But this is not Leibniz's answer. He is a determinist and a compatibilist and so, according to him, the future is both certain and metaphysically contingent. Moreover, past and future share the same kind or degree of necessity: «yet the hypothetical necessity of both is the same: the one cannot be changed, the other will not be; and once that is past, it will not be possible for it to be changed either» (*Théodicée*, § 170, p. 233; GP VI, p. 215). So, since the past is not more necessary that the future, it seems that a presentist interpretation of Leibniz must be rejected.[20]

The fact, however, that *for God* future things are like present ones leads one to wonder whether there are different points of view on time. On the one hand, there is the point of view of human consciousness: it is perspectival since it is located in the present and can watch reality only from then. On the other hand, there is the absolute point of view, located in the nowhen beyond time: God, occupying it, sees things *sub specie aeternitatis*, from the perspective of the eternal. From this perspective – though it is odd to call it a perspective, since it is not properly a *point* of view – the past and the future are *real* just as the present is real.

On the one hand, then, there are clues in favor of a dynamic account of change and a presentist ontology of time. These clues are supported also by analogy with the actualist account of modality endorsed by Leibniz. On the other hand, in favour of the eternalist interpretation of Leibniz, there is the very idea of the complete concept – which encompasses all truths about a substance, even those that are temporally determined – and divine foreknowledge.[21]

9 Time Without *Kronos*

In some texts, Leibniz maintains that time is a derivate notion rather than a primitive one. The only authentically primitive concepts are, he writes, those of *reality*, *variety*, *consequence*, and *order*. Without going into the very complex details,[22] it can be stated that Leibniz establishes a concep-

20 It could be objected that, even though the concept of historical necessity is incompatible with eternalism, the opposite – that historical necessity and dynamic conceptions of time stand or fall together – is not inevitable. This is correct provided that the very notion of historical necessity is not dismissed for other reasons. But this is not the move that Leibniz makes here – or, to my knowledge, anywhere else.

21 Among the wide literature, see for instance Murray 1995.

22 Futch 2002 provides an analysis, focused on the notion of time, of a text that he calls a «spectacular and quintessentially Leibnizian attempt to identify the most fundamental

tual hierarchy. Most primitively, there are different entities; moreover, if they are incompatible with one another, they differ in time (see, for instance, A VI, 4, p. 390). However, the notion of *time* is even derivative: the text argues that from the notions of *consequence* and *order* derive the notions of *cause* and *effect*, and from these derive the notion of *change* and finally that of *time* (cf. A VI, 4, p. 397; pp. 398ff.). There is no time without change, so Leibniz argues repeatedly;[23] change, however, logically precedes time, and change in turn is constituted or explained by cause and effect and these by *succession* (or *order*) and *consequence* considered together. Leibniz's theses on the relative logical priority of these notions are rather complex;[24] according to Futch (2002, pp. 130-131), they indicate that Leibniz's account of time is grounded not primarily on the distinction between *tensed* and *non-tensed* statements (or propositions), but rather on only «the logically prior relations of consequence, order, and causality. In fact, Leibniz himself explicitly draws this inference, writing, 'It is obvious that [temporal] priority and posteriority do not enter into [*ingredi*] the definition of change' (VE 168)».[25]

Elsewhere, in another text pointed out by Futch,[26] Leibniz defines time as the «continuous order of existing things according to change», adding that «a past state is one from which the present arises [*oritur*], and which is incompatible with the present» (C, pp. 479-480). Moreover, it is worth noting that «what the present is really, is indefinable and is knowable only by perception» (C, pp. 479-480), whereas the notion of arising is defined as follows: «something is said to arise [*oriri*] from another thing, if the latter is [...] a primary cause» (C, p. 471). Once more, then, Leibniz's theory of time is rooted in the notions of change and cause – and thus ultimately in the notions of consequence, order, variety, and reality. Futch emphasizes that «these definitions are remarkable, for they represent an obvious attempt to define tensed temporal properties in non-tensed terms» (Futch 2002, p. 135).

categories of thought and being» (Futch 2002, p. 130). He comes back to that passage in Futch 2008, pp. 134-135; 2012, p. 94.

23 This is almost tautological given a relational account of time – and, anyway, Leibniz claims this explicitly, for instance at A VI, 4, p. 1399, where he states that there is 'no time without change'.

24 Futch 2012, pp. 94-95, claims that the more primitive notions enter into the definitions of the derivative notions and explain them, but the latter are not reducible to the former.

25 The passage quoted by Futch from the *Vorausedition* corresponds to A VI, 4, p. 569.

26 In the following quotations, I avail myself of Futch's translation of Leibniz's texts.

10 Dynamic Eternalism: Two Perspectives on Time

Leibniz explains the notion of time in terms of the notion of change that is thought of as «an aggregate formed from two contradictory states» (Grua, p. 512)[27] – one formed, in other words, from states that are not jointly possible. It may well be that such an approach is pretty different from the contemporary one, which accounts for the notion of time in terms of the famous *A*- and *B-series* introduced by McTaggart's seminal article ([1908] 1993).[28] In spite of the differences, however, there are some remarkable similarities that I would like to point out – similarities that will help me to construct a new interpretation of Leibniz's ontology of time. In doing this, I am aware of the many exegetical and theoretical difficulties. Thus I confine myself to suggesting a *possible* reading of Leibniz's theory of time, one that seems to me promising and that (at least to my knowledge) has never previously been put forward. Before illustrating this attempt, let me outline McTaggart's terminology; the reader competent in the contemporary philosophy of time can skill this paragraph too.

11 McTaggart's A-, B- (and C-) series

In reconstructing McTaggart's theses, it can be said that there are two ways in which one might account for time. The first is a deflationist view according to which all there is to say about time is merely its *chronology*. A calendar is an example. There are different events (and maybe times, over and above events) that are linked by the relations of *earlier than*, *later then*, and *simultaneous with*. Maybe not all these relations are fundamental: *earlier* and *later* are reciprocally converse, so maybe only one of them need be considered indispensable, while *simultaneous* amounts to being neither earlier nor later. With these relations, we can order events: for example, I woke up, *then* I drank a coffee *while* listening to the news on the radio, *subsequently* I went out in a hurry.[29] This is a report of my early morning according to the so-called B-series. The other account of time is *dynamic*. This can be explained with an example: suppose you look in your organizer and notice that you have different commitments at different days. Their sequence is perfectly established: on Monday you have to do a certain thing, on Tuesday another thing, and on Wednesday yet a third. The

27 «*Change* is a complex of two immediately contradictory states» (A VI, 4, p. 869).

28 In this article, McTaggart implicitly rejected the theory of time exposed by Russell 2010, § 442ff.

29 To be correct, I ought to avoid the tense. So the report must be: waking up precedes drinking a coffee which is simultaneous with listening to the news, etc.

problem, though, is that you do not know which day is *today*. This makes a big difference! And this information is not given by your agenda. Maybe today is Monday, but maybe today is Tuesday and Monday is already over.

According to Russell and a large group of his followers, a chronology is sufficient for accounting for time, since every proposition referring to time can be *reduced* to one or more propositions involving only a B-series. If this is true, there is ultimately no need to use *tensed* proposition in the most fundamental description or reality. Obviously the *dynamic* experience of time does not match reality and is merely an illusion, a matter of psychology. McTaggart contends that all this cannot be true. His argument runs as follows. On the one hand, a B-series ought to explain what time is. On the other hand, it is presupposed there is no time without change: though questionable, this is the mainstream position from Aristotle through Hegel and including Leibniz, as we have seen. Now the last step – fatal if sound: in a calendar there is no room for change since, after all, the relations of *preceding* and *following* are fixed, unchangeable. In other words, if the event of my submitting a paper *precedes* the event of my going to ski, this temporal relation, this segment of B-series, is established once and for all and never changes. One might say that it is eternal. So, if time requires change, *but* the merely chronological approach to time does not make any room for change, then chronology (the B-series *alone*) is neither semantically nor conceptually sufficient for accounting for time. What now? Another series is required: the dynamic A-series of the properties of being *present*, *past* and *future*. Unlike merely chronological relations, these properties genuinely change: no event is always present rather than future or past. On the contrary, a present event *is* present, *was* future, and *will be* past. So the B-series, instead of being primitive, is *established* by the A properties; so the temporal relations of *earlier* than, *later than*, and *simultaneous to* can be reduced to the verbal *tenses* of propositions, which are indispensable. The story, however, is not ended, according to McTaggart. In fact, the A-series leads to an inescapable *contradiction*: each event possesses all three of the incompatible properties of being *present*, *past*, and *future*, and there is no escape from this paradox. Indeed, it is totally useless to invoke time differences by pointing out that, of course, each event possesses all of the incompatible properties, but only at different times and never simultaneously. McTaggart argues that this move relapses into a merely chronological account of the very same dynamic properties, and thus reduces the A-series to a second-order B-series. But since the B-series has been recognized as conceptually insufficient, the whole problem starts again and a third-order A-series is required to account for time, leading to an unacceptable regress. McTaggart's conclusion is drastic: neither the chronological approach nor the dynamic approach can account for time in a consistent way. So time is *unreal* and what exists is merely the so-called C-series – that is, an order of events that cannot be considered a temporal

order (as the order of the natural numbers cannot, since it possesses no intrinsic direction).

McTaggart's reasoning is far from being uncontroversial. In general, the astonishing conclusion that time is *unreal* has been rejected and the overall argument has been split into two parts, and each of them is marshaled against the other by a different group of philosophers. On the one side there are the advocates of a static, chronological account of time; they claim that a B-series alone is sufficient for accounting for time just *because* the A-series is inconsistent, as McTaggart showed. On the other side there are the defenders of a dynamic conception of time. They uphold McTaggart's criticism of the immobility and insufficiency of the B-series alone, but they deny that the A-series is inconsistent with itself.

12 Absolute and Perspectival Views on Time

However different the Leibnizian and the contemporary explanations of time might be, some remarkable connections can be detected. As previously noted, future contingents are real only in God's intellect and because of his will – whereas, in the actual world, they are *now* not real at all. A future event does not exist yet. But what *exactly* does this mean? Does a future event exist *now* in the sense that it exists *somewhen*, in what Augustine called a 'secret refuge' (Augustine, *Confessions*, XI.18) far from the present moment, where it has always existed? It might even be so: after all, God faces the present as the future and as the past. Every temporal dimension seems to possess, in the eyes of God, the very same ontological status.

Or instead is the future event real in God's mind in the sense that it has, up to now and probably for a while longer, only the reality of the merely possible, the reality of a simulacrum. Future contingents are already *certain* because of the infinite but determinate connections of things, and this is the reason why God can have foreknowledge of them. Nevertheless, a future contingent does not *exist* yet; it will exist once it becomes real, after having left the region of possibility and come into existence. If Leibniz believes this, he is a presentist. I do not rule out this possibility completely, especially since it is supported by the claim that time is relational rather than substantive, and by the statement that «all things that are no longer have returned into nothingness» (Leibniz 1989, p. 113),[30] which seems to presuppose time to be a genuine coming into existence and going out of existence, from nothing and into nothing. Yet, the thesis that Leibniz is a

30 It might be that this expression should not be taken at face value since Leibniz sometimes adjusts his words to suit his interlocutor.

presentist contradicts Leibniz's idea that truth consists not only in inherence but also in a *correspondence* with things.[31] Indeed, if propositions about future contingents and divine foreknowledge already have truth values, then they must already correspond to something and so future states of affairs must already exist – which is incompatible with presentism. It could be objected that the truth values of propositions about future contingents and divine foreknowledge are grounded merely in complete notions as they contain marks of the past and evidences of the future. If this were the case, when an abstract representation of the future became concrete, it would not change its truth value – but the *reason* for its being true would change, since it would become grounded by a state of affairs rather than by a simulacrum. This, however, seems to be a weird theory – one in favor of which I do not see any evidence in Leibniz's texts.

These two theories, the eternalist and the dynamic, seem to belong to two different points of view. The latter is located in the present; the former is *sub specie aeternitatis*, related to a non-temporal (or *tenseless*) present. In the terms of the contemporary debate, it seems that we have the C- or B-series on the one hand and the A-series on the other. Indeed, the resemblances are remarkable. On the one side there is an ontology of time which allows us to endorse a C- or, better, a B-series in which the present, past, and future are equally real and their distinction depends on only a comparison: an event is future for me now, but it is present if considered from another time. So nothing enjoys any metaphysical priority when it is present, since everything is present in the time when it is located. This is true *sub specie aeternitatis* and in such view only *tenseless* propositions are ontologically appropriate.

On the other side there is the perspectival, human, and temporally located point of view (*quoad nos*) in which *tensed* propositions are suitable. So there is room for an A-series. This, however, does not necessarily imply a metaphysical privilege of one time over another – as it would in the presentist framework. It is also worth noticing that, in the contemporary debate, both eternalists and presentists have recognized that, though *tensed* propositions cannot be reduced to tenseless propositions, this fact *alone* is not an argument in favour of presentism. Indeed, for the eternalist, tensed propositions merely offer a specific perspective on reality without bestow-

31 See Leibniz 1989, p. 270; A VI, 4, pp. 21-22: «A. But since there must be a reason [*causa*] why a given thought is going to be true or false, where, I ask, shall we look for it? B. In the nature of things, I think». In another text, Leibniz relates the notion of truth with that of 'expression', which seems akin to that of *correspondence* conceived as isomorphism: «That is said to express a thing in which there are relations [*habitudines*] which correspond to the relation of the thing expressed» (Leibniz 1969, p. 207, A VI, 4, p. 1370). This passage continues by generalizing the notion of correspondence as expression; this view is reconsidered and fully explained in a passage, well-known to scholars, contained in a letter to Arnauld of October 6, 1687 (GP II, p. 112).

ing any metaphysical privilege on the present. Rather, presentness is a matter of indexicality – just as is actuality in the context of modal realism (cf. Zimmerman 2005, pp. 412-413).

Anyway, even though tensed propositions can be admitted (in a deflationist way) into the framework of the B-series, presentism (the ontology of the A-series taken by itself) and eternalism (the ontology of the B-series by itself) remain *incompatible*. So it remains pretty *obscure* what it means that, on the one hand, the future is as the present for God but also that, on the other hand, it exists only in his mind. Does the future concretely exist – can God, that is, look at it as I look at the present – or, on the contrary, is it merely a simulacrum envisaged in the divine mind, chosen from among the other possible worlds by the divine will? Russell was already perfectly aware of this question with regard to Leibniz:

> A substance, we have seen, is essentially a subject persisting in time. But by the doctrine that all the states of a substance are eternally its predicates, Leibniz endeavours to eliminate the dependence upon time. There is, however, no possible way, so far as I can discover, in which such an elimination can be ultimately effected. For we must distinguish between the state of the substance at a given moment, and the fact that such is its state at the given moment. The latter only is eternal, and therefore the latter only is what Leibniz must take as the predicate of the substance. The present state exists now, and does not exist the next moment; it cannot itself, therefore, be eternally a predicate of its substance. The eternal predicate is that the substance has such and such a state at such and such a moment. (Russell 1992, pp. 50-51)

The point is that, on the one hand, a substance has its temporally indexed predicates eternally. On the other hand, however, it seems that, at a given moment, only some of these temporally indexed predicates are instantiated: 'The present state exists now, and does not exist the next moment'. Of course, this statement has different meanings depending on the meaning of the 'now,' which can be interpreted in a relative or in an absolute sense. If the 'now' is interpreted in a merely relative sense, as indicating simultaneity with another event (according to Reichenbach's so-called token-reflexive analysis or to the equivalent date-analysis of tensed sentences), then the B-series is a sufficient framework for accounting for time. But if this is true, then the tensed propositions imply a form of perspectivism that does not constrain ontology at all, since presentness does not bestow any metaphysical privilege on what is *now*. On the contrary, if things are not so, we are forced to adopt a more robust A-theory of time which nonetheless must somehow be reconciled with Leibniz's ontological eternalism – with, that is, his ontological commitment to a view of things *sub specie eternitatis*.

13 The Spotlight View

A reconciliation between eternalism[32] and dynamism is made possible by *dynamic eternalism*. The settlement suitable for the Leibnizian seems to me to be the so-called *spotlight view*. This theory is eternalist in its ontology (described by the B-series) but presentist in its phenomenology (described by the A-series). So dynamic eternalism purports to get the best out of both presentism (its dynamism) and static eternalism (its ontology), while neutralizing their respective difficulties. A canonical exposition of the *spotlight view* can be read in a text of C.D. Broad, who sketched this theory without endorsing it:

> We are naturally tempted to regard the history of the world as existing eternally in a certain order of events. Along this, and in a fixed direction, we imagine the characteristic of presentness as moving, somewhat like the spot of light from a policeman's bull's-eye traversing the fronts of the houses in a street. What is illuminated is the present, what has been illuminated is the past, and what has not yet been illuminated is the future. (Broad 1923, p. 59)

Metaphor aside, the present, the past, and the future are equally real: they share the very same ontological status. *Therefore* the future is for God as the present and as the past, and *therefore* it is possible that both the future and the past share the same mere hypothetical necessity, as Leibniz claims. Time is therefore thoroughly akin to the space; time, indeed, is nothing but 'an Order of Successions' as Leibniz states in many places, chiefly in his third rejoinder to Clarke. This, however, does not exhaust the experience of the temporality, since the *present* has a privilege that the past and the future do not have. This privilege is the phenomenological one of 'flashing out', of 'being present', of 'being illuminated by the light of the present'. Despite this, the present does not enjoy a degree of *existence* greater than that of the future and of the past.

This theory, however, presents some intrinsic difficulties against which Broad warns: «in the first place, the lighting of the characteristic of presentness now on one event and now on another is itself an event, and ought therefore to be itself a part of the series of events, and not simply something that happens to the latter from outside» (1923, p. 60).

All in all, this is the same ambiguity pointed out by Russell, which now is given in *phenomenological* rather than ontological terms. An eternal

32 I do not consider the growing block universe theory to truly be a form of eternalism since, according to this theory, things come into existence by springing out of the future *ex nihilo*. Things do not already exist somewhere in the future but are, rather, nothing at all until their coming into existence.

predicate determines that a substance is at a given moment in a given state – for example, that *Alexander is king in 335BC*. This proposition is *always* true in the sense that, at each time, whatever thing Alexander is doing at that moment, it is true to say that he is king in 335BC. This is what Russell calls 'the state of the substance at a given moment'; but it is not implied that *that given moment* is 'given' *right now* – in the light of the moving present. *Sub specie aeternitatis*, under the sight of eternity, all facts encompassed in a complete notion, including merely temporary features of the relevant substance, are given *timelessly* (or *tenselessly*). In other words, all facts at any given moment *coexist* within the framework of the B-series – and so God is acquainted with all of them equally. From a limited point of view, *quoad nos*, a substance can be in a certain state now but not yet in the succeeding state – but two incompatible states can coexist in the B-series so long as they are not simultaneously instantiated.

The two perspectives, the eternalist and the dynamic, are as incompatible as Russell claimed only if they are put on the same ontological level. On the contrary, if they represent different aspects of time, then they are compatible. End of story? Unfortunately not: some problems are here to stay, within and outside of Leibniz's philosophy. One can ask: which view mirrors reality *as it is in itself*? The perspective of eternity, which faces past, present, and future indifferently, or the perspective of the moving present? If the view *sub specie aeternitatis* is overarching, all-encompassing, then the moving present is due only to a limitation upon how our human understanding knows reality. Dynamic time would be an illusion after all, since it does not characterize reality as it is in itself. Whether or not this is Leibniz's position, there is a problem here: if the dynamic is not a deep feature of reality and is therefore not included in the perspective *sub specie aeternitatis*, there cannot exist even a genuinely dynamic illusion. After all, illusions, albeit not reliable, are part of reality and so cannot represent what is impossible. On the contrary, if the moving present is a deep feature of reality and does characterize reality as it is in itself, then even God must experience the real difference between the past, the present, and the future – even if this difference is merely phenomenological. If not, the perspective from the eternity lacks something and is not so all-encompassing after all:[33] the sight from the eternity is, so to speak, too high, for it misses the flow of the time.

33 In a different context, this is, in a nutshell, one of the arguments of Michael Dummett in defense of McTaggart. Dummett 1960, p. 503 claims that «clearly, even if the world is really static, our apprehension of it changes. It does not help to say that we are even mistaken about what we think we see, because the fact would remain that we still make different such mistakes at different times» and this leads to the fact that «we must abandon our prejudice that there must be a complete description of reality (p. 504), i.e. the prejudice that the sight from eternity, *sub specie aeternitatis*, is the highest, most veracious point of view on reality.

This difficulty reconciling two different points of view of time seems to be analogous to Leibniz's difficulty accounting for contingent truths and freedom. I would like to sketch this analogy because it probably reveals a deeper connection between the two problems. In accounting for contingency, Leibniz distinguishes the following concepts of truth: (1) analyticity, (2) necessity, and (3) demonstrability. They are connected as follows: whatever is true is analytic, whatever is demonstrable in a *finite* number of steps is necessary (and vice versa), whatever is necessary is analytic, but not everything that is analytic is also necessary.[34] The infiniteness of some demonstrations – that is, the fact that contingent truths cannot be demonstrated in a finite number of steps – ought to prevent contingent truths from collapsing into necessary truths. The problem, however, is whether contingency is merely an illusion due to the inadequate consideration of reality – whether it is, in Spinoza's words, merely the ignorance of causes (*Ethics* 2P35 S). This is a thorny question in the framework of Leibniz's philosophy. However, it has been argued that the indemonstrability of contingent truths is rooted in their *logical form* rather than in the limits of our epistemic access to reality (cf. Adams 1994, p. 29 *passim*). If so, not even God can prove a contingent truth – and there is evidence from the text that Leibniz admits this (cf. A VI, 4, p. 1656). Is it sufficient to avoid necessitarism? I do not think so. Indeed, even if the indemonstrability of contingent truths depends on their logical form, there is no doubt that «in all true affirmative propositions, necessary or contingent, universal or singular, the notion of the predicate is always in some way included in that of the subject – *praedicatum inest subjecto* – or I do not know what truth is» (GP II, p. 56; Leibniz 1988, pp. 111-112).[35] Moreover, God can immediately *see* the inherence:[36] he does not need to *demonstrate* anything. So every contingent truth is seen in its analyticity, in its essence,[37] by God. It is worth remembering that nothing that is analytic can be contingent. In other words, if each truth appears to God to have the structure of the proposition *A–B is B* – if, that is, the canonical form of *any* true proposition is that of a part-whole relation – how can such predication be considered deniable without contradiction – that is, contingent? It cannot. So contingency is merely a semblance that disappears if things are considered as

34 For this schematic taxonomy, see Blumenfeld 1985.

35 This thesis is nearly a refrain; for a short list of passages, see Blumenfeld 1985, p. 485, note 6.

36 God, «seeing [...] the connection of terms or the inclusion of the predicate in the subject [...] sees whatever is in the series» (A VI, 4, p. 1656; Leibniz 1973, p. 109). God's knowledge is 'an infallible vision' (p. 111).

37 A contingent truth is, of course, not demonstrable; but «the reason of the truth, however, always exists, even though it can be perfectly understood only by God who alone scans an infinite succession by a sole mind's glance» (*De Contingentia*, A VI, 4, p. 1650).

they really are in themselves (or *a parte rei*), if truth is considered *quoad se*, as God considers it.

Analogously, if the perspective from eternity mirrors reality as it is in itself, dynamism disappears: it must be an illusion caused by the limits of our perspectival point of view, which is located within the time itself. On the contrary, if dynamic time is an absolute, undeniable given – and there are several reasons for considering it such – the point of view *sub specie aeternitatis*, which freezes reality into the B-series, misses an essential feature of this reality, its dynamism. As a consequence of this dynamism, even for God the future cannot really be as the present, since the future, though it already exists, is not manifested *now*. Similarly, if contingency must be real even for God, then even the divine sight, which immediately sees without demonstration the inherence of every predicate in its subject, must miss something: whatever God sees in a complete notion, it is not the *fully perfect* inherence of temporary predicates in their subject. Though this imperfection prevents the collapse of contingency into necessity, it ensures that God's perspective is not the highest.

In spite of this cobweb of problems (rooted, ultimately, in Leibniz's philosophy) and of the numerous lexical, exegetical, and theoretical difficulties that my interpretative endeavor might have to face (which are no bigger than those of other approaches), I see some encouraging reasons for considering the spotlight view as a model for Leibniz's theory of time.

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