Time and the Observer in Jorge Luis Borges

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Introduction

The Argentinian writer Jorge Luis Borges indicates in his essay 'Time and J. W. Dunne' that he does not "pretend to know what sort of thing time is or even if it is a 'thing'." But we can see from Borges' writings that he has undoubtedly thought deeply about the subject, including questioning the notion that time flows from past to future via the present. For instance, Borges alludes to his misgivings about the arrow of time in the short story 'The Garden of Forking Paths' where the protagonist, Dr Yu Tsun, confronts the possibility of his death. While he first finds it "incredible" that he is going die that day. Dr Tsun acknowledges also the pointlessness of mourning for our lost lives because all things happen only in the present: "Then I reflected that everything happens to a man ... precisely now. Centuries of centuries and only in the present do things happen."² I believe, however, that Borges' eclectic research and erudition in relation to the idea of time reaches its apotheosis in his essay 'A New Refutation of Time' where he offers his most explicit statements on the subject, especially in rejecting the reality of time's flow, by accepting arguments from science, metaphysics, and elsewhere.

Even so, we find that Borges appears to express a certain ambivalence as well about such a standpoint. In this article—after first discussing what led to Borges' seeming denial of the arrow of time—I intend to explain why I feel Borges is unable to get reconciled to such a view of time without any reservations. I then argue that this is because a view that refutes time denies the observer too along with it. I conclude with

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¹ Jorge Luis Borges, *The Total Library: Non-Fiction 1922-1986*, ed. Eliot Weinberger, trans. Esther Allen et al (London: Penguin Group, 2001 [1991]), p. 219.

² Jorge Luis Borges, *Labyrinths* (Camberwell: Penguin Australia, 2011 [1962]), p. 45.

showing how Borges addresses this problem by endeavouring to identify a reconciliation between a refutation of time and an acknowledgment of its reality.

Borges and the Refutation of Time

Borges states in his 'A New Refutation of Time' that he denies "in an elevated number of instances, the successive [and] the contemporary as well." Time, in other words, is made up of disjointed instances and every one of those moments is absolute and hermetic. Consequently, the person who thinks (for example) that his lover was deceiving him while he was confident of the latter's fidelity is in fact, Borges contends, deceiving himself. As Borges explains, "if every state we experience is absolute, such happiness was not contemporary to the betraval; the discovery of that betrayal is another state, which cannot modify the 'previous' ones."4 Borges then offers some examples from history to show that other human feelings, like hope and fear too, "seem [akin to love] no less vain [because] each moment is autonomous. Neither vengeance nor pardons nor prisons nor even oblivion can modify the invulnerable past." This is more so as psychologists estimate the "specious present" to last only a few seconds (or even less) and that, Borges notes, could be the length of what we refer to as history. Hence, there is no such thing called history, as we usually understand it, as a progression of related events that lasts over a long time, across millennia. "Each moment exists, but not their imaginary combination [and] if time is a mental process, how can thousands of men or even two different men—share it?",7

Borges makes it clear in his essay that he was influenced by the writings of Bishop Berkeley, David Hume and Wilhelm Gottfried Leibniz before he began to recognise this view of time. These writers led him eventually to Arthur Schopenhauer's comparison of time "to a constantly revolving sphere; the half that was always sinking would be the past, that which was always rising would be the future; but the indivisible point at the top, where the tangent touches, would be the extensionless present. As the

³ Borges, *Labyrinths*, p. 257.

⁴ Borges, *Labyrinths*, pp. 257-8. ⁵ Borges, *Labyrinths*, p. 258.

⁶ Borges, *Labyrinths*, p. 258.

⁷ Borges, *Labyrinths*, p. 258.

tangent does not revolve with the sphere, neither does the present." Hence, Schopenhauer holds, "[f]uture and past are only in the concept ... the present alone is the form of life." Borges adds that a Theravada Buddhist treatise from the fifth century, the *Visuddhimagga*, too, uses the example of a sphere to illustrate the same doctrine. ¹⁰

Another Buddhist treatise that supports these ideas and which Borges refers to in a footnote to 'A New Refutation of Time' is the Milinda Panha from the second century CE. The fact that Borges has cited this work in several of his other essays, including one dedicated to the Milinda Panha per se, shows how much Borges may have appreciated this work. This work concerns a debate between Menander (Milinda), the king of Bactria, and the monk Nagasena about the nature of existence and the ontology of the self. Nagasena's allusion to the impermanence and relational nature of objects in this exchange supplements arguments against the flow of time and the existence of things across time. When during the discourse the king asks his name, Nagasena replies that names are mere conventions and offers as an analogy the king's chariot which is designated by neither its wheels nor its chassis (or any other part); ""neither is" as Borges transcribes, "man, his matter, form, impressions, ideas, instincts or consciousness. He is not the combination of these parts nor does he exist outside of them." Hence, all objects—be they ascetic, king, chariot or time—are defined purely by their relation to one another.

W. H. Bossart does not find it difficult to see how Borges arrived at his refutation of time particularly when we combine Hume's empiricism, Buddhist nominalism and Leibniz's metaphysics. The idea that each moment is absolute, especially, has its antecedents in Leibniz's ontological principle of the identity of indiscernibles which holds that no two objects share exactly the same properties. In Leibniz's view, events therefore (Bossart notes) "enjoy a spatio-temporal position only through their

⁸ Borges, *Labyrinths*, pp. 268-9.

⁹ In Borges, *Total Library*, p. 227.

¹⁰ Borges, *Labyrinths*, p. 269.

¹¹ Borges, *Total Library*, p. 383.

¹² Borges, *Labyrinths*, p. 270.

¹³ W. H. Bossart, *Borges and Philosophy: Self, Time and Metaphysics* (New York: Peter Lang Publishing, 2003), pp. 95-6.

relations to other events" and time is not absolute but constructed out of the relation between events. 14

While echoing some elements of Leibniz's indiscernibles, Immanuel Kant casts doubts even on the ontology of time and the spatio-temporal position Leibniz attributed to it. Kant held that space and time are *a priori* forms, modifications of the mind. In this view of Kant's, as Bossart explains, there can be no distinction in time between one moment from another. Bossart opines that this further suggested to Kant that "although they are empirically real by virtue of the fact that we must impose them upon the data of experience, space and time are also metaphysically unreal." This is a view that appeals to Borges in his arguments against the metaphysical reality of time. This led Borges to conclude, Bossart observes, that "there can be no such things as contemporaneity or succession ... Nor does the recurring memory of one and the same thing ... testify to the flow of time."

There is support for the doubts that Borges held about the reality of time also in more contemporary thinkers, including philosophers and scientists. As a corollary to Leibniz's and Kant's thoughts about space and time, John Earman and John D. Norton wondered if space and time existed independently or whether they are simply an artificial mechanism to describe the relationship of physical objects and events. As Norton wrote, "Are they like a canvas onto which an artist paints; they exist whether or not the artist paints on them? Or are they akin to parenthood; there is no parenthood until there are parents and children." For Leibniz, as we saw earlier, time was not such an "empty canvas" while for Kant that canvas appeared to possess a contingent reality. These questions were no doubt triggered by Einstein's discoveries in the early 1900s and his thoughts on the "relativity of simultaneity" lend support to Borges' questioning the reality of the succession of events and time's flow.

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Accessed 8 June 2020.

¹⁴ Bossart, *Borges and Philosophy*, p. 90.

¹⁵ Bossart, Borges and Philosophy, p. 91.

¹⁶ Bossart, *Borges and Philosophy*, p. 91.

¹⁷ Bossart, *Borges and Philosophy*, p. 93.

¹⁸ Bossart, *Borges and Philosophy*, p. 91.

¹⁹ Bossart, *Borges and Philosophy*, p. 96.

²⁰ In George Musser, 'A Hole at the Heart of Physics', *Scientific American* (2006), at https://www.scientificamerican.com/article/a-hole-at-the-heart-of-physics-2006-02/.

Albert Einstein's theories were closely associated with a model of space-time conceived by his former teacher Hermann Minkowski who in 1908 posited that based on his views "space by itself and time by itself ... are doomed to fade away into mere shadows, and only a kind of union of the two will preserve an independent reality." In a more recent echo of these ideas (and Kant's conclusion), some scientists have argued that psychological time could merely be a question of perspective. For instance, the theoretical physicist Carlo Rovelli contends that felt time arises as a relation between entropy and uncertainty. Rovelli observes that we associate the increase of entropy in what he calls "thermal time"—a variable that measures the flow of entropy—with the occurrence of things and call it "time" and "the growth of entropy distinguishes the past from the future for us and leads to the unfolding of the cosmos." 23

"And yet, and yet...": Borges' Ambivalence

As much as Borges arrived at his ideas regarding time "via the dialectics of Berkeley and Hume," he is also aware that they "both affirm[ed] the existence of time"; but there was a difference in how they did it. For Berkeley time represented "a succession of ideas in my mind, which flows uniformly and is participated by all beings." Moreover, Berkeley held, even if none of us existed and did not witness the continued presence of objects, God would affirm their existence. Hume, however, refuted the identity of persons and the nature of time as Berkeley saw it. As for Hume, the empiricist, a person was no more than a collection of perceptions and experiences and time too was "a succession of indivisible moments." The succession of indivisible moments.

The Berkeleyan inference that "we cannot posit the reality of the material world beyond the representation we have of it in our minds" is also posited by Borges, according to William Egginton, to deny such

²¹ Bossart, *Borges and Philosophy*, p. 87.

²² Carlo Rovelli, 'The End of Time', *Nautilus* (2018), at http://nautil.us/issue/64/the-unseen/the-end-of-time. Accessed 8 June 2020.

²³ Rovelli, 'The End of Time'.

²⁴ Borges, *Labyrinths*, p. 268.

²⁵ In Borges, *Labyrinths*, p. 256.

²⁶ Borges, *Labyrinths*, p. 256.

²⁷ Borges, *Labyrinths*, p. 256.

existence beyond the present.²⁸ The irony implicit in this approach is that, as Egginton points out, "its very performance requires its refutation. There can be no perception at all, of anything, much less arguments made about perceptions, without time, without extension."²⁹ Furthermore, if per Hume all our knowledge emanates solely from experience "without recourse to a level transcending experience," Egginton explains, the very idea of experience would vanish, as we would be unable to meld the various moments in time to arrive at a coherent picture of the world.³⁰ This is the dilemma that Borges' Funes the Memorious faces, Egginton tells us. Funes has lost, after an accident, the ability to forget and he "alone [has] more memories than all mankind has probably had" and as a result his memory is "like a garbage heap."³¹ Because of this, Funes lacks the facility to synthesise his moments in time into a whole meaningful experience.

Consequently, a refutation of time becomes arguable; for perception takes place in time and knowledge is acquired over a duration of time. Borges is well conscious of this predicament. As he writes in the 'prologue' the title of his essay 'A New Refutation of Time' is "an example of the monster termed ... contradictio in adjecto, because stating that a refutation is new (or old) attributes to it a predicate of temporal nature which establishes the very notion the subject would destroy." Furthermore, these dialectical lacunae that ignore our shared moments and enduring histories may lead one to doubt not only time's flow but even the reality of all objects. Thus, Borges wonders (in the voice of the narrator in 'The Aleph') if he really set eyes on the Aleph in Daneri's cellar and so refuses to talk about it any further. For, if Hume denied the continued existence of objects and held that a person was not more than "a bundle of ... different perceptions, which succeed each other with an inconceivable rapidity," was the Aleph too just another idea with no tangible foundation?

²⁸ William Egginton, 'Three Versions of Divisibility: Borges, Kant, and the Quantum' in *Thinking with Borges*, eds William Egginton and David E. Johnson (Colorado, USA: The Davies Group, 2009), p. 55.

²⁹ In Egginton, 'Three Versions of Divisibility', p. 55.

³⁰ In Egginton, 'Three Versions of Divisibility', p. 57.

³¹ Borges, *Labyrinths*, p. 92.

Borges, *Labyrinths*, pp. 252-3.

³³ Jorge Luis Borges, *The Aleph, Including the Prose Fictions from 'The Maker'*, trans. Andrew Hurley (London: Penguin Group, 2000 [1998]), p. 131.

³⁴ In Borges, *Labyrinths*, p. 256.

But how can we refute the existence of time and physical reality when we witness time's depredations in our lives every day (which is part of Funes' predicament)? Funes is on the one hand imprisoned in the present. But he has too the inexorable awareness that he is subject to the eddies and whirlpools of the river of time. As Borges observes with such impeccable perspicacity, Funes could not help continuously "discern[ing] the tranquil advances of corruption, of decay, of fatigue [and] the progress of death, of dampness."35 The wish (arising from this cognizance) for time to desist ravaging us-akin to imploring "time must have a stop" (as Shakespeare's Hotspur does)—is unwittingly paradoxical. This is because while we yearn for each moment to form part of a stream that enriches our lives, we are longing too for immortality and eternity, where the one moment contains all past moments. This is a view of time that is epitomised in the description of the Aleph as "one of the points in space that contains all points [and one] where ... all the places of the world, scene from every angle, coexist."³⁶ The irony here is that time will ultimately devour us. But we, like an ouroboros, also consume time before it does so.

As Borges writes, "[a]nd yet, and yet ... Denying temporal succession, denying the self, denying the astronomical universe, are apparent desperations and secret consolations. Our destiny ... is not frightful by being unreal; it is frightful because it is irreversible and ironclad."³⁷ Borges then appends to this acceptance of life's realities the following Delphic pronouncement about this enigma called time (and how it shapes the equally enigmatic concept of the self):

Time is the substance I am made of. Time is a river which sweeps me along, but I am the river; it is a tiger which destroys me, but I am the tiger; it is a fire which consumes me, but I am the fire. The world, unfortunately, is real; I, unfortunately, am Borges.

Borges' visualising of time as being the river that sweeps him along—while he himself is the river—is reminiscent of Baruch Spinoza's view of reality which Bossart thinks is "central to Borges' preoccupations." ³⁸

For Spinoza, as Bossart elucidates, nature unfolds "within the continual flux of time." While science tries to identify the "efficient

³⁵ Borges, *Labyrinths*, p. 94.

³⁶ Borges, *The Aleph*, pp. 126-7.

³⁷ Borges, *Labyrinths*, p. 269.

Bossart, Borges and Philosophy, p. 6.
Bossart, Borges and Philosophy, p. 6.

causes" of events, that quest is necessarily tentative and incomplete because we can never go back to the first moment in time. Consequently, Bossart concludes,

[i]nsofar as I see myself as immersed in the river of time, I can never know who I am, for I am as myriad a being as the circumstances which are involved in my formation. Seen under the aspect of eternity, however ... what I call myself is nothing more than a particular aspect of the modal series which flows logically and eternally from God's nature.⁴⁰

This, I believe, is the most salient element of Bossart's linking of Borges' view of time and Spinoza's metaphysics. Bossart then adds that Spinoza too used the metaphor of the river to describe time. In his view, Spinoza's wondering "What weft or scheme is this, what river is this whose face is inconceivable" seems to reaffirm our being caught in time's eddy. "I But, "there is also the suggestion [per] Spinoza," Bossart adds, "that although I am carried away by this river I nevertheless *am* this river. In short, I am made from an unstable material, time ... and perhaps its source lies in me." "42

We cannot overlook either the Heraclitan element in this comparison of time to a river: namely, change. But a view that denies time—or at the least time's flux—portrays a world without love, a space *sans* poetry. As Borges put it, by holding that reality consists of only one unchanging substance, Parmenides made "the universe an idle adjective of the Absolute." In this Borges reflects a very human vexation with the emptiness that a timeless universe portends. In a similar vein, a view of science that upholds static time too reifies such a Parmenidean perspective.

This becomes apparent when we consider the thoughts of some scientists who hold that space-time, let alone being static, may even be merely conjectural. This belief lends support to the prophecy by Minkowski who, as we saw earlier, thought that space and time "are doomed to fade away into mere shadows." As per this view, no meaning could be attributed to space-time before the Big Bang as the universe at that juncture had not split into various objects. The expansion of the universe after the Big Bang then allowed objects to derive meaning. "It is nevertheless," as Geoffrey Chew from University of California Berkeley

⁴⁰ Bossart, *Borges and Philosophy*, p. 7.

⁴¹ Bossart, *Borges and Philosophy*, p. 8.

⁴² Bossart, *Borges and Philosophy*, p. 8.

⁴³ Borges, *Labyrinths*, p. 263.

contends, "only an approximation to attribute 'identity' to any piece of the universe—to any 'object' (including a human being)."44

As the theoretical physicist and Nobel laureate Frank Wilczek found, there is therefore an ongoing

> tension between the God's-eye view of reality comprehended as a whole and the ant's-eye view of human consciousness, which senses a succession of events in time. Since the days of Isaac Newton, the ant's-eye view has dominated fundamental physics. [But we] divide our description of the world into dynamical laws that, paradoxically, exist outside of time 45

Hence, while natural laws may be "dynamical" this "God's-eye view of reality" is overall a rather static one where space-time simply is and wherein "nothing happens; nothing changes," as Robert Geroch states. 46 Particles do not, in other words, move through space-time or follow an identifiable history across time.

However, such a vision of the universe—which attributes a static nature to space and time—makes sense only for someone (such as God) who can stand outside that domain. But us mortals live inside that universe—not outside—and are subject to rules over which we have seemingly little control. This is the essential difference between how time is perceived by everyday humans and how time is defined by those who deny its reality. Consequently, science's contention that we live in a timeless universe is not always easily explained in everyday language, as a notion of time is so much part of our everyday lives. As another Nobelprize winning physicist Erwin Schrodinger underscores, when science tries to explain a sequence of events and their cause-and-effect relationship without referring to time, "it ... is not ... easily explained in nonmathematical language. Not that the mathematical scheme is so complicated. But everyday language is prejudicial in that it is so thoroughly imbued with the notion of time."⁴⁷ Borges too appears resigned to the

⁴⁴ G. F. Chew, 'Appeal to God May be Required to Answer the Origin Question', in Cosmos, Bios, Theos: Scientists Reflect on Science, God, and the Origins of the Universe, and Homo Sapiens, eds Henry Margenau and Roy Abraham Varghese (Chicago and La Salle, IL: Open Court, 1993), p. 34.

⁴⁵ In W. M. Stuckey, 'Ascending to the God's-eye View of Reality', *OUP Blog* (2018), https://blog.oup.com/2018/03/gods-eye-view-of-reality/. Accessed 8 June 2020.

⁴⁶ In W. M. Stuckey, 'Ascending to the God's-eye View of Reality'.

⁴⁷ Erwin Schrodinger, What Is Life? With Mind and Matter and Autobiographical Sketches (Cambridge: Cambridge University Press, 1993 [1944]), p. 148.

inescapability of time as we understand it and feel it—something that becomes more apparent when we also account for the limits to human reasoning and knowledge. Hence, in his prologue to 'A New Refutation of Time' he confesses that the essay is "the feeble artifice of an Argentinian lost in the maze of metaphysics."

Borges avers elsewhere that he is "neither a thinker nor a moralist, but simply a man of letters who turns his own perplexities and that respected system of perplexities we call philosophy into the forms of literature." I would argue that these observations of Borges'—which John Sturrock from the *Times Literary Supplement* described as "mock modesty". also subsume a discontent with an approach to understanding that reduces the world merely into atoms, particles and objects. He recognises here the need to accept human limitations that apply not only to "an Argentinian" but all of us.

In this respect, we are like the leopard (in Borges' 'Inferno, I, 32') who expresses "an obscure resignation, a valorous ignorance, for the machinery of the world is much too complex for the simplicity of a beast." But in case we rejoice that such inadequacies apply only to other animals, Borges reiterates that it applies to us humans, too, by adding that even Dante who placed the "figure and symbol" of the leopard in a poem may have "received and lost an infinite thing, something he would not be able to recuperate or even glimpse, for the machinery of the world is much too complex for the simplicity of man." Borges' appreciation of our deficiencies is evident yet again in the quote from *Leviathan* by Thomas Hobbes that he uses as an epigraph to 'The Aleph': "But they will teach us that Eternity is the Standing still of the Present Time ... which neither they, nor any else understand."

⁴⁸ Borges, *Labyrinths*, p. 252.

⁴⁹ David E. Johnson, 'Introduction: Borges and the Letter of Philosophy' in *Thinking with Borges*, ed. William Egginton and David E. Johnson (Colorado, USA: The Davies Group, 2009), p. 1.

John Sturrock, *Paper Tigers: Ideal Fictions of Jorge Luis Borges* (Oxford: Oxford University Press, 1977), p. 1.

⁵¹ Borges, *Labyrinths*, p. 273.

⁵² Borges, *Labyrinths*, p. 273.

⁵³ Borges, *The Aleph*, p. 118.

Time and the Observer

"And yet, and yet..." (to borrow Borges' inimitable conjunction) we feel the urge nevertheless—despite being assailed by doubts and confusions—to find meaning in our lives and seek fulfilment. In exhibiting this desire, we resemble the leopard in Borges' 'Inferno' to whom God spoke thus in a dream: "You suffer captivity, but you will have given a word to the poem."⁵⁴ To understand why this is so, we have to start with the admission that any inquiry into time will lead us inevitably to the difference between time in science (or what Bossart calls "world or public time")⁵⁵ and psychological time, time that courses through our minds. "[T]he clearest treatment of [this] distinction," as Bossart opines, is to be found in Borges' short story, 'The Secret Miracle'. ⁵⁶ In this tale, the prisoner Hladik who is condemned to death prays to God to grant him a year needed to complete his play. He seemingly lives through this one year while being executed (which takes only two minutes) when time apparently freezes for him.⁵⁷ Which time was more 'real' for Hladik? The two minutes of clock time (which physics claims is at best illusory) or felt time, time relative to the individual? Such an enquiry underlines the need (in our efforts to define time) to include the observer—the one who perceives, the one who experiences.

We saw earlier how Borges based his "refutation" of time on the ideas of Bishop Berkeley and other thinkers and how his viewpoint is supported also by certain scientists. Even so, when these dialectics are seen through the prism of the observer, we realise that a hasty repudiation of the reality of time may be founded on quicksand. The arguments supporting this conclusion can be divided largely into two points of view: the metaphysical (or philosophical), and the scientific (although some overlap between them is unavoidable).

Time and the Observer in Metaphysics/Philosophy

Psychological time refers to our sense that events have a duration, a pattern of succession or simultaneity. An understanding that time passes from past to future via the present assigns structure to our memories, the bedrock of

55 Bossart, Borges and Philosophy, p. 101.

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⁵⁴ Borges, *Labyrinths*, p. 273.

⁵⁶ Bossart, *Borges and Philosophy*, p. 101.

⁵⁷ Borges, *Labyrinths*, pp. 118-24.

our conceptions of a self. In *Felt Time: The Psychology of How We Perceive Time*, the German psychologist and researcher Marc Wittman explains how we use working memory to form and sustain a notion of self. Although we perceive life in a series of "nows" working memory "forms the temporal bridge between individual moments of lived experience and gives rise to the feeling that [the] ego exists continuously in the world." Our awareness of the flow of time is (like a movie made up of several individual frames) underpinned by interlinked memories. The idea of an enduring self is facilitated by the interaction of memory and our linguistic capacities which enable us to connect events into a coherent narrative about who we are. But these stories take time to develop, Wittman points out, on the idea of a duration, not just discrete instants.

Berkeley, on whom Borges depended for the disavowal of time's reality, acknowledges none the less the significance of the observer (who possesses and processes these memories). In his language, the observer takes on the guise of a "mind." Without that mind, things would not exist. Their *esse is percipi*, in Berkeley's well-known dictum: to exist is to be perceived (and hence the presupposition of a perceiver). "All the choir of heaven and furniture of the earth ... have not any substance without a mind, that their being is to be perceived or known," says Borges. If an opponent argued that things could be imagined to exist on their own without positing a consciousness to do that imagination, Berkeley would have responded by holding that even if humans were not the imaginers such things have to "subsist in the mind of some eternal spirit," or "they must have no existence at all."

The observer not only perceives; the observer also brings order to what is perceived and mines meaning from experience by sieving it through time. As Kant contended, "all of our cognitions are in the end subjected to the formal condition of inner sense, namely time, as that in which they

⁵⁹ Wittman, Felt Time, p. 51.

⁵⁸ Marc Wittman, *Felt Time: The Psychology of How We Perceive Time*, trans. Erik Butler (Cambridge, USA: The MIT Press, 2015), pp. 51-2.

⁶⁰ To better appreciate the role of memories in enriching our lives, imagine a life without memories, or faulty ones, such as the case of someone suffering from dementia.

⁶¹ Borges, *Labyrinths*, p. 254.

⁶² Borges, *Labyrinths*, pp. 254-5.

must all be ordered, connected."⁶³ Without such a synthesis, Egginton points out, the various components of experience would be "apprehended [only] in their individual unity," which is the problem Borges' Funes the Memorious faced, and, paradoxically, "the manifold of space and time in which they are apprehended and separated would itself never be apprehended."⁶⁴ Hence a recognition by Kant that space and time—as much as he felt that they were "metaphysically unreal"⁶⁵—were "fundamental to our perception of thinking about the universe," as Egginton adds.⁶⁶

Time and the Observer: Lacunae and Assertions in Science

Modern scientific methodology generally follows Galileo's distinction between primary and secondary qualities of material bodies in trying to explain nature. Galileo identified⁶⁷ properties such as size, shape and position as primary (that is, they existed in the bodies themselves) while he considered other properties (like colours and odours) as secondary. This approach has its practical benefits as it fits in with the other scientific dictum of assuming "other things remain constant" that simplifies assumptions and eases the explanatory process.

Science views these so-called secondary qualities moreover as—as Richard Healey, professor of philosophy of science and metaphysics at the University of Arizona, explains—"a humanly convenient way of categorizing those things in response to fundamental properties such as the wavelengths of light and sound."68 The irony here is that just as a focus on primary qualities may be a useful tool in science, it is the so-called secondary qualities that facilitate our day to day comprehension of the world. But "how is the human practice [for instance] of making what we call colour discrimination possible if colour is not a fundamental property of physical objects?" as Healey wonders. An account that denies that a

⁶³ In Egginton, 'Three Versions of Divisibility', p. 56.

Egginton, 'Three Versions of Divisibility', p. 57.

⁶⁵ Bossart, Borges and Philosophy, p. 93.

⁶⁶ Egginton, 'Three Versions of Divisibility', p. 61.

⁶⁷ See 'Cartesianism – The Way of Ideas and the Self', *Encyclopedia Britannica Online* (2020), https://www.britannica.com/topic/Cartesianism/The-way-of-ideas-and-the-self#ref 478262. Accessed 8 June 2020.

⁶⁸ Richard Healey, 'Can Physics Coherently Deny the Reality of Time?' in *Time*, *Reality & Experience*, ed. Craig Callender (Cambridge, UK: Cambridge University Press, 2002), p. 301.

property like colour is fundamental "owes us at least a sketch of an answer to this question," Healey feels. "And any such account that entails that the question is unanswerable is ipso facto unacceptable." 69

In order, furthermore, to circumvent the problem posed by the baggage of time (felt time, that is) that comes with the observer, "the Parmenidean [in science] embarks," as Healey puts it, "on an ambitious reconstruction project [for] coming up with serviceable replacements for these temporal concepts which presuppose the existence of time and change at a fundamental level." But this process relies still on someone observing nature and coming to conclusions. To support its hypotheses, science is so dependent on empirical evidence, an analysis of events that reflect change—and observers, because change is perceived in the mind of the observer. Hence, there is no science without observers—or time.

Even if we chose to ignore the human realities associated with observers, there is no getting around the paradox inherent in the scientific process itself: while its ultimate conclusions hearken a Parmenidean *ennui* or stasis, the process of scientific discovery itself is inescapably embedded in a temporal paradigm. As Healey explains, the nature of observations and experiments is that they give rise to experiences in the scientists who perform them. These experiences are events that take place in time, and

the testing ... presupposes the possibility of change—in the mental state of an observer [and] also in the physical state of the world ... Put bluntly, a radically timeless interpretation of [say] general relativity entails the impossibility of performing any of the experiments and observations ... Such an interpretation makes the theory empirically self-refuting [and we would have] no good reason to deny the existence of time as a fundamental feature of reality.⁷¹

In a recognition of these issues, some prominent scientists—such as John Wheeler and Roger Penrose—have stressed the importance of incorporating the observer in science's explication of phenomena. Wheeler asserted in fact that "No elementary phenomenon is a phenomenon until it is an observed phenomenon."

⁶⁹ Healey, 'Can Physics Coherently Deny the Reality of Time?' p. 302.

⁷⁰ Healey, 'Can Physics Coherently Deny the Reality of Time?' p. 301.

⁷¹ Healey, 'Can Physics Coherently Deny the Reality of Time?' pp. 300-1.

Egginton, 'Three Versions of Divisibility', p. 64. "Of course, from a Kantian perspective," as William Egginton notes wryly, "this is a tautology, for a phenomenon by definition is only ever an observed phenomenon."

Wheeler was also one of the first leading scientists to accept—as the science writer John Horgan points out—that "reality might not be wholly physical; in some sense, our cosmos must be a 'participatory' phenomenon requiring the act of observation—and thus consciousness itself." As for consciousness, Penrose has argued (as Egginton tells us) indeed that "conscious observation plays a pivotal role in quantum mechanics, and that, vice versa, quantum mechanics are somehow responsible for the experience of consciousness." These arguments lead us to surmise that whatever objective reality may be—even if there is another reality behind and apart from the one we perceive—the only reality that matters, the only reality that influences sentient lives, is the one we observers perceive (and this reality ineluctably includes time).

Borges' Search for a Reconciliation

Borges begins his 'first article' of 'A New Refutation of Time' thus: "In the course of a life dedicated to letters and ... to metaphysical perplexity, I have glimpsed or foreseen a refutation of time, in which I myself do not believe, but which regularly visits me at night and in weary twilight with the illusory force of an axiom." For W. H. Bossart "the coupling of 'illusory force' with 'axiom' suggests ... that there are no self-evident truths but only conventional ones." This is exemplified in Borges' 'Averroes' Search' whose core idea "is that there is no context neutral standpoint from which one can consider the data of experience "objectively'." Rather all description and explanation take place within a particular context or from a particular point of view" as Bossart asserts. The metaphysical questions that Borges examines are consequently, as the literary critic Jaime Alazraki tells us, to be "understood not as attempts to comprehend or interpret the historical universe, but rather as schemes of a world [in Borges' words] 'constructed by means of logic, with little or no

⁷³ John Horgan, *The End of Science: Facing the Limits of Knowledge in the Twilight of the Scientific Age* (London: Little, Brown & Company, 1997), p. 81.

⁷⁴ Egginton, 'Three Versions of Divisibility', p. 64.

⁷⁵ Borges, *Labyrinths*, p. 253.

⁷⁶ Bossart, *Borges and Philosophy*, p. 94.

⁷⁷ Bossart, *Borges and Philosophy*, p. 13.

appeal to concrete experience'." Idealism can thus be held up as a mirror for science to look into and realise its own limitations.

Borges also wrote elsewhere that he "thought above all of the literary possibilities of Idealist philosophy, let's say, rather than its intrinsic merits ... This does not necessarily mean that I believe in the philosophy of Berkeley or Schopenhauer ... I believe I was thinking rather of the alchemy or unreality of the material world as subjects usable by literature." "Thus Borges is an Idealist," as Sturrock points out, "only when he writes ... The ideas of Berkeley and Schopenhauer [are] to play with, not ones to live by." But while choosing to focus on the literary potentials of philosophy, Borges retains none the less, as Alazraki emphasises, a "yearning for an order that is unattainable to human intelligence." This theme is shared, Alazraki adds, by Borges' poems, short stories and essays. As Alazraki cites from Borges' 'The Analytical Language of John Wilkins', "the impossibility of penetrating the divine scheme of the universe cannot dissuade us from outlining human schemes, even though we are aware that they are provisional."

These affirmations by Borges (and as elucidated by a number of critics) tell us that Borges acknowledged the need to take a denial of time with a certain amount of scepticism and identify therefore a *modus vivendi* that threads a path between the non-existence of time as asserted in physics and the undeniable reality of time in the mind of an observer. One of the first steps Borges perhaps took to fulfil this objective was to interweave an awareness of the limits of human intelligence and knowledge in his writings. We have an excellent illustration of this idea in Borges' 'The Library of Babel' which Marcelo Gleiser thinks is "a metaphorical replica of the universe," including allusions to the shortcomings of current cosmological thinking. What's more, if the library represents the universe, it contains everything—including the reader and the narrator. It is therefore

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⁷⁸ Jaime Alazraki, *Borges and the Kabbalah and Other Essays on his Fiction and Poetry* (Cambridge, UK: Cambridge University Press, 1988), p. 144.

⁷⁹ In Sturrock, *Paper Tigers*, p. 22.

⁸⁰ Sturrock, *Paper Tigers*, p. 23.

⁸¹ Alazraki, Borges and the Kabbalah, pp. 141-2.

⁸² Alazraki, *Borges and the Kabbalah*, p. 141.

⁸³ Marcelo Gleiser, 'Borges, the Universe and the Infinite Library', *NPR* (2010), https://www.npr.org/sections/13.7/2010/07/23/128716508/the-universe-and-the-infinite-library. Accessed 9 June 2020.

not possible for someone—one with only an ant's eye view of the world, as we saw earlier, to stand "outside" this universe and examine it, let alone explain it. As Gleiser puts it: "Like a fish that wants to understand the totality of the oceans, the librarians try in vain to decipher the mysteries of their world, unaware that all they can acquire is a partial knowledge of reality."84 Hence, complete knowledge is unattainable.

Our language is circumscribed by its past as well. Hence, we employ metaphors, symbolisms and other linguistic devices to create meaning: "Every language is an alphabet of labels the employment of which assumes a past shared by its interlocutors. How can I transmit to others the infinite Aleph, which my timorous memory can scarcely contain? In a similar situation, mystics have employed a wealth of emblems."85 To overcome the limits of language, Borges uses oxymora (an artifice akin to such "emblems") not merely as stylistic devices but also as tools for revealing deeper levels of reality. Oxymora are where the meaning of a word is contradicted by another term. When wielded by Borges, they (as Alazraki explains) help appraise and modify a concept (idealism, for example) by other theories (those, for instance, that assert the reality of time) which contradict it. "At the same time ... they restore the ideas, the subject matter of the essay," Alazraki contends, "where they regain their validity, not as a description of the world but as marvels of human imagination."86 An oxymoron thus, is an attempt to overcome the inherent narrowness that reason has imposed on language.

Such an oxymoronic approach is itself a metaphor for the paradox that is integral to the nature of time. For Borges writing is an escape from the reality of time. It is "a passing distraction from reality," as John Sturrock puts it, in which the clock has seemingly stopped. But once the "dream" (of writing) stops, "the clock will eventually have to be restarted ... and [the author should] return to the real world and its insistent chronometry." Borges is hence realistic in how he contends with time. He does not dream—much as science exhorts to do—"the impossible dream of stopping time dead" as Sturrock notes. Time's flow is, in other words,

⁸⁴ Gleiser, 'Borges, The Universe and The Infinite Library'.

⁸⁵ Borges, The Aleph, p. 118.

⁸⁶ Alazraki, *Borges and the Kabbalah*, p. 145.

⁸⁷ Sturrock, *Paper Tigers*, p. 64.

⁸⁸ Sturrock, Paper Tigers, p. 209.

⁸⁹ Sturrock, Paper Tigers, p. 209.

undeniable. Instead, Borges only "exploits, as all narrative is bound to do, the possibilities of postponing it." 90

Conclusion

To write these concluding words, I shall now travel back to the beginning. (Here, by the way, is yet another instance of the ineluctable presence of temporal idioms in our language). This starting point refers to an epigraph to Jorge Luis Borges' essay, 'A New Refutation of Time' consisting of a quotation in German by Daniel von Czepko⁹¹ which, translated into English, ⁹² proclaims that "Before me there was no time, after me there will be none. With me it is born, with me it will also die." It appears to succinctly epitomise the notion that time may be an artefact—or a feature of existence explainable only through the prism of our hyperindividuality—whose reality is commensurate only with our individual lifetimes

But, as Borges realised, this does not gainsay the actuality of "felt time" which underlies the pleasures and pains of human existence and hence his vexation with theories of time that ignore its role in human destinies. Consequently, Borges chose, as Alazraki points out, "to sublimate his impotence toward reality by creating another ... man-made reality." This is a reference to Borges' inability to wholly embrace philosophical idealism. He opts instead to accept its utility as a "branch of fantastic literature" (as did the metaphysicians in Borges' 'Tlön, Uqbar, Orbis Tertius'). 94

The introduction to this essay included an example of how Borges utilised metaphysical speculation as a literary device. This is where Dr Yu Tsun contemplates his impending death. Dr Tsun's realisation that everything happens in the present is not only a denial of time's arrow but also the allied concept of philosophical presentism which refutes the ontology of both past and future. Borges refers to presentism in 'Tlön, Uqbar, Orbis Tertius' too where another set of philosophers hold the view

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⁹⁰ Sturrock, *Paper Tigers*, p. 209.

⁹¹ Borges, *Labyrinths*, p. 252.

⁹² See https://theoxfordphilosopher.com/2018/10/17/a-new-refutation-of-time/. Accessed 8 June 2020.

⁹³ Alazraki, Borges and the Kabbalah, p. 146.

⁹⁴ Borges, Labyrinths, p. 34.

⁹⁵ In 'The Garden of Forking Paths'.

that "the present is indefinite ... the future is [nothing but] a present hope [and] the past has no reality other than as a present memory." 96

Another idea that Borges explores is the multiverse. When Dr Tsun's manuscripts are examined after his death, we find that Dr Tsun did not believe in "a uniform, absolute time" but an "infinite series of time ... divergent, convergent and parallel times. We do not exist in the majority of these times; in some you exist, and not I; in others I, and not you; in others, both of us." ⁹⁷

'The Theme of the Traitor and the Hero' is a story where Borges examines the idea of cyclical time or time as a "circular labyrinth." When Ryan the narrator probes the history of his ancestor and Irish hero, Fergus Kilpatrick, he notices several "parallelisms" between the lives of Kilpatrick and Julius Caesar. For instance, Kilpatrick receives a warning not to attend the theatre where he will be subsequently murdered, much like how Caesar received a note prior to going to the place where the daggers awaited him. (This also prefigures Lincoln's assassination at Ford's Theatre). 99 Borges alludes here to the notion of circularity of time, where events keep recurring across time.

Lastly, we have a seamless blend of history, speculation and the metaphysics of time in Borges's essay 'The Wall and the Books' which looks at a Chinese emperor's quest for immortality. History tells us that Shi Huang Ti (259-210 BC) ordered the construction of the Great Wall. In his essay, Borges refers to this fact and the legend that Shih also decreed the destruction of all books created prior to his time. Borges then wonders if the emperor wished to restart time—especially with the burning of books and thus abolishing all antecedent history—and begin anew with his own. "Perhaps the emperor wanted to recreate the beginning of time." We referred earlier to Hotspur's wish for time to have a stop. Shih's aspiration is an adjunct to that invocation: what the emperor covets is for time to not only have a momentary cessation but to then start over from the emperor's reign on earth in his pursuit of "the elixir of immortality."

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⁹⁶ Borges, *Labyrinths*, p. 34.⁹⁷ Borges, *Labyrinths*, p. 53.

⁹⁸ Borges, *Labyrinths*, p. 103.

⁹⁹ Borges, *Labyrinths*, pp. 103-4.

¹⁰⁰ Borges, Labyrinths, p. 222.

¹⁰¹ Borges, *Labyrinths*, p. 222.