

Two modes of temporal discourse

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For us, who are convinced physicists, the distinction between past, present and future has no other meaning than that of an illusion, though a tenacious one.

– Albert Einstein¹

It seems that the “problem of reality” has many solutions.

– Paul Feyerabend²

1 The metaphysics of presentness

The philosophy of time is a wide and varied subject, but many of its issues are intimately connected to questions of metaphysics. This latter discipline has been suspect ever since David Hume's famous injunction to burn all books containing neither abstract reasoning concerning quantity or number nor experimental reasoning concerning matter of fact and existence, even though few philosophical libraries have actually been touched by such fiery expurgations. The suspicion was kindled anew in the twentieth century by the logical positivists, who often called for the ‘elimination of metaphysics’. However, no decisive victory was won by these adversaries of the deep questions concerning the nature of reality, and the discipline lives on. Contemporary philosophers of time, for instance, happily discuss themes like the dependence of time on the existence of objects and the intrinsic or extrinsic nature of its asymmetry. Still, Hume and his followers have made us aware that we cannot naively assume our metaphysical inquiries to be sensible and meaningful; we should always display a critical attitude towards not merely the proposed answers, but also the very questions themselves.

This essay will tackle one of the most basic ontological questions concerning time: are all moments equally real, or can only the present make a claim to reality?

¹From private correspondence, quoted in P. Feyerabend, [1], p. 188.

²From ‘Realism’, in [1], p. 191.

Rather than provide a definitive answer, I will explore the intuitions underlying the two positions and try to clarify which ways of deciding the issue are valid. This enquiry is conducted against the background of a very critical attitude towards the question itself. In fact, after showing that the question is undecidable, I continue by identifying and criticising a metaphysical belief that will be seen to underlie the very asking of the question. Thus the subject matter of this essay lies as much in the realm of metaphysics³ as it does in that of the philosophy of time.

Are all moments equally real, or can only the present make a claim to reality? The first option is called *eternalism*⁴, which claims that there is no ontological difference between events in the future, events in the past and in the present. Actually, the proponents of this view assert, there is no such thing as *the* present: every moment is the present for someone living at that time. The second option is called *presentism*, which claims that only the present is real; the past has been real, but is so no longer, while the future will become, but is not yet, real. There is a sense in which time ‘passes’: the future becomes first the present and then the past.⁵

Some problems with these positions ought to be identified immediately. Eternalism claims that all moments are ontologically equivalent, whereas presentism claims that there is an ontological difference between the present and other moments. But the notion of ‘ontological equivalence’ is quite obscure. The difference between the two positions does not boil down to a dispute about whether a moment exists forever or for one moment only. It is meaningless to say that ‘every moment exists forever’, since this is logically equivalent to ‘every moment exists at every moment in time’, which is quite unintelligible. The ontological properties which all moments are claimed either to share or not to share must be properties which do not themselves make a reference to time. Unfortunately, this ensures that we cannot use any easy analogies. We might have been tempted, for instance, to liken presentism to the playing of a movie and eternalism to a static collage of all frames of the same movie. But the difference here is one connected in an obvious and important way to time, and must therefore be completely non-analogous to the case we are looking at. It is, given the previous considerations, very mysterious what kind of ontological properties we are talking about in the debate between eternalists and presentists. Rather than engaging this problem in a straightforward manner, I will explore the intuitions underlying the two positions – this will lead to greater insight in what they actually amount to.

2 McTaggart’s confused intuition

In his famous article *The Unreality of Time* J. E. McTaggart defended the seemingly preposterous view that time does not exist, all appearances notwithstanding. Very important for my present purpose are his distinction between two different views of time and his insistence on ‘real change’. McTaggart identifies two ways of ordering the moments in time: the A-series and the B-series. In the A-series, one moment has the label ‘present’, and others are labeled, for instance, ‘five minutes in the past’ or ‘seven days in the future’. These labels are constantly shifting. What is future now

³Or perhaps, since I will advocate a certain attitude to be taken whenever conducting metaphysical research, it might more accurately be called ‘meta-metaphysics’.

⁴[5], section 2.1.

⁵It should be noted that there are more positions possible in the ontology of time than presentism and eternalism. There is, most importantly, the Aristotelian view that the past is definite and existent, whereas the future is non-definite and non-existent. If the aim of this essay were to answer the ontological question that forms its subject, leaving out the Aristotelian position would be hardly defensible. But since I will try to show that no single answer is the ‘right’ one, I may perhaps be excused for my omission. Another possible ontology of time, which I call static-presentism, will be described later on.

will become present; what is present now will become past and recede ever farther into the murky depths of history. The B-series, on the other hand, orders events with respect to ‘later than’ and ‘earlier than’. A certain event may, in the B-series, be said to be ‘five minutes earlier than’ one event, and perhaps ‘a million years later than’ some other. The labels of the B-series are not shifting: they always remain the same. If P is five minutes later than Q now, then P will *always* be five minutes later than Q . A *prima facie* resemblance between the A-series and presentism on the one hand, and the B-series and eternalism on the other is evident, although it remains to be seen how far this resemblance goes.

McTaggart wonders whether the B-series alone is enough to constitute time. First of all we have to recognise that time involves change; a universe without change would be a timeless universe. The B-series seems to be able to handle change well enough: an object can have a certain property x at time t_1 , and another, different property y at time t_2 . This feature is accurately represented in the B-series. Yet according to McTaggart, this is not an example of real change: it is the case and will always remain the case that the object has property x at time t_1 and property y at time t_2 . These facts do not differ from one time to another, they are eternal and unchanging. Hence, the B-series cannot incorporate change; and since change is essential to time, the B-series cannot be a foundation for time. The only change that is possible, he continues, is that which is captured in the A-series: an event changes from future to present to past. Therefore, the A-series is necessary for change, and by implication for time, to be real. Yet according to the A-series every moment is present, every moment is past, and every moment is future – three incompatible qualities. The A-series, by claiming all of these mutually exclusive properties for every moment, is inconsistent. Time, then, is unreal.

It will be objected that the succession of different states in time is the very essence of change, and that McTaggart’s insistence on ‘real change’ is misguided. This objection is undoubtedly correct, yet so obvious that McTaggart cannot simply have overlooked it. What intuition made him discriminate between this ‘succession change’ and his so-called ‘real change’? When we contemplate the entirety of time, we generally see in our minds an image of a line containing all moments in time, laying before us as an unchanging whole. If we think of all successive states of the universe as such a whole, it appears to be static. Nothing seems to stop us from thinking about a later time first and an earlier time afterwards; we do not reach the unscalable walls of the unthinkable when we try to imagine the universe running backwards; nothing in this conception of the universe obliges us to think of it as an object forever changing and changing. Change seems to be a mere accidental property of the universe, created by a simple definition that is not forced on us by reality itself. When McTaggart assures us that the B-series alone does not constitute change, he is appealing to this image of the universe as an unchanging, static whole, where ‘change’ is but an inessential and subjective idea of humanity.

If change is real, it must be at the heart of Nature; our very conception of the world must force us to acknowledge change as essential and objective. What we need for *real* change is a mental model of the universe that changes *while we think of it*. When we imagine the universe and by this very fact of imagination are forced to acknowledge its ever-changing nature, its unstoppable voyage towards an unknown future, *then* we will have real change, change which is not merely an accidental feature of the universe but one of its essential components. McTaggart presents the A-series as the mode of thought which does just this; but then he goes on to show that the collection of facts derivable from the A-series is inconsistent. For ‘ P is present’ is a fact of the A-series as much as ‘ P is past’ and ‘ P is future’ are. These three facts all contradict each other. It does not help to restate them as ‘ P is present at time t_P ’, for that would reduce them to B-series propositions which do not force us to think of the universe as changing. Therefore, the set of

facts engendered by the A-series is inconsistent.

McTaggart is able to derive an inconsistency only because he uses two modes of thought at the same time: on the one hand, he imagines the world as ever-changing in an essential way; on the other, he wishes to think about it as a stable collection of facts wherein contradictions can arise. He shows that the ever-changing conception of the world cannot be captured both consistently and completely in a set of facts. His argument is valid, but it does not tell us anything about the reality of time or change. A collection of facts about the universe is, as long as we have access to it, something which does not change – something which does not force us to consider them in a certain order, at a certain speed. This is merely the nature of sets of facts. Therefore, if change is captured in facts, it is not captured in the way that McTaggart’s intuition wants it to; but this does not prove that real change does not exist, only that McTaggart demands of collections of facts to possess certain properties which they cannot possibly have. An ever-changing image of the universe simply has different properties than a collection of facts. Only philosophical naivety could make us conclude that the ever-changing image is inconsistent, when the valid conclusion is that it cannot be captured in a set of facts.

McTaggart’s conception of the A-series is doomed to fail. He tries to construct facts that capture his intuition; but this is impossible. He creates three categories, ‘past’, ‘present’ and ‘future’, which should force us to consider our picture of the universe as always changing. When we imagine the universe, we must see that the present moves ever forward, changing the future into the past. But the picture thus created, though certainly not meaningless or without merits, does not conform to the standards for being a collection of facts, since facts are unchanging. McTaggart reaches a conclusion which could have been foreseen, and which has little to do with the considerations that have taken place in his analysis: the A-series cannot exist. It cannot exist because it is asked to be both a collection of facts, in other words something thinkable as a whole, and a stream of consciousness, a ‘movie’, something which cannot be thought of as a whole without destroying its most essential property.

3 From a human point of view

McTaggart’s confusion teaches us an important lesson: not every mode of thought can be accurately restated in the form of facts. In particular, every mode of thought for which change is essential cannot be so restated. This vital insight allows us to criticise and dismiss many attempted refutations of presentism. McTaggart’s argument against the consistency of the A-series has sometimes been sidestepped by claiming that there is no such thing as a totality of all facts; that the only facts that exist at any instant are the facts that obtain at precisely that moment. Critics of presentism have regarded this as a weak move, claiming for instance: “[T]he crucial move – denying the assumption that there is a totality of facts – seems quite bizarre, unless it is independently motivated.”⁶ But this is no longer the case once we have understood that the A-series is not a faithful representation of presentism, since it contains elements both of the ever-changing picture and the set-of-facts picture. Presentism is a metaphysical image based on the intuition expressed by the ever-changing picture, and is therefore an *alternative* to the eternalist view which visualises time as a static whole expressible as a totality of facts. The presentist, then, does not have to make the ‘bizarre’ claim that there is no totality of facts; he only has to make the very reasonable claim that the totality of facts has as little

⁶Paul Horwich, [2], p. 27. Actually, Horwich is criticising the Aristotelian ontology of time rather than presentism; but he would have undoubtedly been willing to extend the argument to cover the latter theory too.

to do with the ever-changing picture of the universe he endorses, as observations of gravitational lensing have to do with proofs in Euclidean geometry.

An appeal to the totality of facts is unable to settle the issue of presentism and eternalism, since it begs the question in favour of the latter.⁷ Presentism is untenable when plugged into a set-of-facts mode of discourse, but similarly eternalism is untenable when plugged into a moving-picture mode of discourse. We may be left with the nagging suspicion that perhaps these metaphysical questions cannot be settled at all, that each of the positions represents a view on the universe that is self-coherent, self-consistent and immune to criticism from outside. To show that this is not the case, and to indicate what criteria can be used to decide between such metaphysical theories as presentism and eternalism, I will present a third possible theory concerning the ontology of time: static-presentism. Like presentism, static-presentism claims that only the present is real. But unlike presentism, it does not contain an element of change; the present does not ‘move’ through time, turning the future into the past, but remains at the same spot. Static-presentism claims that there is only one moment, the present, and that there is nothing else and no change.

This ontologically austere view may sound extremely implausible. We experience change, we remember the past, we strive for the future – how could anyone deny the reality of these things? And yet I think static-presentism is completely safe from any disproof. It is by necessity the case that my experience right now is compatible with the proposition that only the present exists or will ever exist. We do not experience the past directly, we only experience present memories. We do not experience the future directly, we only experience present anticipations. And if one claims that even in reading this sentence an amount of time has passed – well, it is logically sounds to claim that the memory of starting to read this sentence is an illusion, that only the present is, was, and will be real.⁸ There can be no solid proof on whatever grounds (logical, empirical or phenomenological) that any moment in the past or the future is not merely an illusion. And yet no-one is willing to accept static-presentism, even though Ockham’s razor surely decides in its favour. How can this be explained?

There are many human activities that are intricately bound up with the concept of time. We have science, the theories of which use time extensively. Of these, the theories of relativity are even concerned with the actual description of time’s properties. We experience time directly, feeling it passing even if we are devoid of sensory input. Time plays a crucial role in our conceptualisation of our daily lives, of our fiction and our historical accounts. It enters into our psychology, since we remember the past and anticipate the future. And all these practices together define our concept of ‘time’, even if time does not always behave quite the same in each of them. An ontology of time is only acceptable if it fits in with some of these practices; but static-presentism does not. Science does not assume the world to consist of only one static moment; no stories are ever told taking place in but one moment; we do not, in our daily lives, regard the past and the future as illusions. And it is this utter lack of association with any of the components that underlie our vision of time, that makes static-presentism so unacceptable. Thus, if we wish to decide between presentism and eternalism – having already seen that both correspond with valid modes of thought – we should not look to the world of

⁷Because of this, the rhetorical question ‘If the present moves, how fast does it move?’ is not a valid criticism of presentism either. The image of the present moving along the line of time is just another example of an unallowable conflation of two different points of view: the present coming from presentism, the line along which it ‘moves’ from eternalism. It is for this reason that I think presentism should not be called ‘the moving-now conception of time’, a name which I have therefore carefully avoided in this essay.

⁸These tenses should not be taken too seriously.

logic or linguistics, but to the very human world of practices. This is not in the first place a matter of normative methodology, but an empirical claim concerning the actual reasons for which we accept or reject metaphysical theories.

4 Two modes of temporal discourse

Presentism was based on the intuition that the world ought to be visualised as ever-changing, somewhat akin to a movie. Eternalism, on the other hand, received support from the idea that the world ought to be looked at ‘from outside’, laying before us in its entirety, somewhat akin to a painting. Which of these two positions is corroborated most by the successful and important human practices and modes of thought that constitute the frame of reference to which any metaphysical theory must conform?

The support for the presentist position is formidable by any way of reckoning. In the first place, it is closely associated with the common sense way in which we think about our daily lives. We attach a very special significance to the present, and think very differently about the future than we do about the past. Those of us as yet untouched by philosophy will generally hold dear the idea that the past is over and done with, whereas the future is as yet unattained and uncertain. We may grieve for the past and be afraid of the future, but not the other way around. We feel our lives slipping past us, and mourn the bitter fact that the happy days of our youth will never be again. Most of all, we are afraid of death, the great nothing when we will forever cease to exist – a sentiment quite unreasonable by eternalist standards! These ways of thinking have been copied by influential and highly developed parts of our cultural heritage, especially in the telling of stories in literature, film and other media. These employ narrative structures where we are presented with one situation after another, perhaps inviting us to create a totality by interpretation, but not giving it to us themselves. As an example, take Jane Austen’s *Pride and Prejudice*, which is presented to us as a story unfolding in time. As we read, the fictional present moves on and on, revealing the fictional future to our eager understanding. Exactly the same cognitive content could have been presented in a quite different way: each fact which we come to know while reading the book could have been written down in a self-contained manner⁹, and the totality of all these facts then presented to us as an unordered whole. Such a thing is never done, and even strikes us as preposterous and absurd. The presentist position is thus strongly associated with the very pervasive cultural activity of story-telling, a bond that is only strengthened by the fact that another way of story-telling is feasible, yet never exemplified.

The common sense way of thinking about time finds an ally in phenomenology. We do not experience time as a whole, but only single instants, ever changing. Even when confined to a dark, soundless chamber, where we receive no input from any of our sensory organs, we still experience the move of time. The very basis of our experience, then, seems to have much in common with the view of the world as ever-changing. One interesting example of this phenomenological bias towards presentism is given by Quentin Smith in *The Phenomenology of A-Time*. When we know that a happy event is in the future, we feel gleeful anticipation; when we

⁹This would indeed take some rewriting, perhaps most easily achieved by making explicit the exact place in time of each event and adding suppressed contextual information. From chapter I: ‘My dear Mr Bennet,’ said his lady to him one day, ‘have you heard that Netherfield Park is let at last?’ Mr Bennet replied that he had not. The first sentence is quite self-contained, but the second would have to be rewritten somewhat along these lines: *Mr Bennet replied to his lady, a short time after she had asked him whether he had already heard that Netherfield Park was let at last, that he had not.* The extreme clumsiness of this rewritten statement (and this is only a mild example) shows how inextricably most story-telling is bound up with the presentist intuition.

know the same event is in the past, we may feel nostalgia. There is an obvious phenomenological difference between these two bits of knowledge: they are accompanied by quite different emotions. Yet on the eternalist view of the world the pieces of knowledge are identical, merely indicating that a happy event will take place at such and such a moment in time. The image of the world as a stable, static collection of facts cannot illuminate our emotional attitude towards certain knowledge; if we do not wish to dispense with either the emotions or the explanation, we have to use the presentist image.¹⁰ With common sense, many kinds of story-telling and phenomenology rallied under the banner of presentism, we may wonder whether there is any hope left for the opposing position. Surprisingly enough, there is.

Human beings tend to abstract. When confronted with a collection of smooth, round, greenish, tasty objects, we abstract from their individual properties and describe all of them as apples. In exactly the same way we abstract from individual moments in time, claiming for instance that ‘Mrs Bennet is always silly’. Such a proposition does not describe an event taking place at any particular moment in time; rather, it is about the entire time spanned by Jane Austen’s novel. Abstraction from individual moments plays a very important part in our lives; indeed, without this skill even sentences such as ‘the shops are closed every Sunday’ would be incomprehensible. Yet this method of abstraction demands a simultaneous contemplation of each of a set of moments; sometimes even of the entirety of time. The image of time inherent in this important practice is that of the static, displayed-all-at-once universe. The mind must be able to survey the moments at its own leisure, ranging back and forth, taking in intervals as well as single moments, or the abstract claims cannot be understood – or at least not visualised. Abstract thought supports eternalism.

Perhaps the most prestigious of the abstract practices in our society are the natural sciences. Among the most important present-day scientific theories is the General Theory of Relativity, which purports to describe the structure of space-time. It has often been noted that this theory does not make use of the notions ‘present’, ‘past’ and ‘future’, and in fact shows us space-time as a 4-dimensional continuum without change. The realisation that fundamental science is intimately associated with the eternalist picture of the universe was the cause of Einstein’s utterance which opened this essay. It seems, however, hardly surprising that the scientific theory of time uses the static picture of the universe, since this is a necessary consequence of any abstraction from individual moments, and science is nothing if not an abstract enterprise. Yet we must conclude that science, together with the other abstract modes of thought, lends its support to the eternalist position.

On the one hand then, there are common sense, story-telling and phenomenology. On the other, all forms of abstraction, including the natural sciences, have assembled. Which of these aggregates of successful and important human practices is the stronger? Can we possibly dismiss either one as misguided and based on a faulty and defunct system of metaphysics? This is, in my opinion, highly implausible; both are far too strong and pervasive to do without. And yet they give rise to different metaphysical convictions. Eternalism will remain acceptable as long as abstract thought is acceptable; presentism cannot be refuted as long as it is supported by valid and vital ways of thinking and experiencing. Instead of deciding the battle once and for all, we must conclude that we make essential use of both modes of temporal discourse: the ‘moving’ and the ‘static’, the ‘experiential’ and the ‘abstract’, the ‘presentist’ and the ‘eternalist’.

¹⁰A fuller account of the argument can be found in [6], section 5. It should be stressed that Smith uses it to show that phenomenology proves the A-theory (read: presentism) to be true and hence the B-theory (read: eternalism) to be false. I do not endorse this view, and make a somewhat different use of the argument.

5 A plea for tolerance in matters metaphysical

If the litmus test for the acceptability of a coherent metaphysical position is, as I have argued, its ability to fit in with existing practices and modes of discourse, we are faced with a puzzling situation. Eternalism and presentism obviously contradict each other, and yet both clearly pass the test of acceptability. There is no way to decide between them that is not arbitrary and in contraposition to an important part of our intellectual life. ‘Convinced physicists’ do not need to reject presentism as long as their conviction is not that physics is the one and only valuable cultural activity, or the single judge of metaphysical ideas. Neither does a phenomenological philosopher have to reject eternalism, unless he dogmatically clings to his method as the holy grail of ontological research. We seem to have no choice, then, but to accept both modes of temporal discourse as important and both ontologies of time as valid.

Alarmed, one might protest that this is impossible: from the outset it was clear that presentism and eternalism are inconsistent with each other. It is a logical impossibility that both are true, so we cannot accept both as valid. Perhaps my arguments might persuade one to agree that we cannot yet decide which should be rejected, but it is unthinkable that we accept them both. The alarm expressed here is understandable; it finds its roots in a metaphysical intuition which I will dub the ‘Doctrine of Unity’. But I do not think it is justified, and I present the ontological discussion which formed the core of this essay as a strong argument in favour of metaphysical pluralism.¹¹

The Doctrine of Unity is the idea that all human knowledge about the world should, in the end, form a coherent and unified whole. All the sciences, the knowledge of our daily lives, historical facts, profound wisdom, philosophical theories: each and every one of them must be in accordance with all the others. At a fundamental level, they must harmoniously fit into each other, since each is in its own way an accurate reflection of Reality, which must of course be coherent and consistent. But plausible as this idea may initially seem, it is a mere article of faith, not supported by any compelling reasons. All of the human enterprises are ways of arriving at coherent stories concerning the world. But the Doctrine of Unity supposes that the idiosyncratic features of these different modes of thought are cosmetic touches, and will not show up too much in the final result. It is based on the very unreasonable assumption that the products of science and the products of historical narration, to name just two examples, do not only reflect the same reality, but also reflect it *in the same way*. Once we reject this methodological prejudice, nothing prevents us from claiming that different ways of approaching reality, though all valid, may produce different and incompatible results. This does not point to a schism in the world itself, but merely reflects the simple fact that different methods lead to different results. Reality simply responds in some ways to certain queries, and in other ways to others.

This implies that it is not necessary to admit only metaphysical ideas which are consistent with each other, since once we drop the assumption that our metaphysics describes ‘Being as it really is’, there is no contradiction left. Our metaphysics will show traces of the cultural practices and modes of thought which lend it support, and where our practices are divided so will our metaphysics be divided. We have to face the rather obvious fact that we cannot know reality independently of our approach to it. In this spirit, Paul Feyerabend wrote: ‘Being as it is, independently of any kind of approach, can never be known, which means that really fundamental theories don’t exist.’¹² And neither does really fundamental metaphysics. But there

¹¹The case for metaphysical pluralism has been extensively defended by Paul Feyerabend in his last book, *Conquest of Abundance*.

¹²Paul Feyerabend, ‘Historical Comments on Realism’, in [1], p. 205.

are useful and otherwise acceptable metaphysical theories, which represent successful approaches to reality. In accepting these in spite of their mutual incompatibility, we protect ourselves from falling prey to a dogmatic view of the world which forces us to disregard interesting and important modes of thought and discourse. Perhaps the research in the ontology of time which has been carried out in this paper can convince us that metaphysical pluralism is reasonable as well as useful.

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