

TIME AND MIND

THE HISTORY OF A PHILOSOPHICAL PROBLEM



by

J.J.A. MOOIJ

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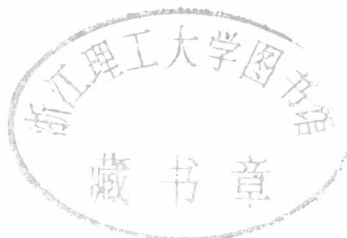
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TRANSLATED FROM THE DUTCH BY
PETER MASON



BRILL
LEIDEN · BOSTON
2005

Cover illustration: "Triumph of Time" from Petrarch's *Trionfi*.

Original Edition: *Tijd en Geest. Een Geschiedenis*. Kampen: Agora, 2001.

The translation from the Dutch was made possible by a grant from the Netherlands Organization for Scientific Research (NWO).

This book is printed on acid-free paper.

Library of Congress Cataloging-in-Publication Data

A C.I.P. record for this book is available from the Library of Congress.

ISSN 0920-8607

ISBN 90 04 14152 9

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Koninklijke Brill NV incorporates the imprints Brill Academic Publishers,
Martinus Nijhoff Publishers and VSP.

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PRINTED IN THE NETHERLANDS

39806171

TIME AND MIND

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VOLUME 129



Only through time time is conquered.

T.S. Eliot, *Burnt Norton*, II

PREFACE

Can time exist independently of consciousness or mind?

This book is about the history of this question and the answers that have been given. Aristotle was the first to ask whether time would exist if there were no mind. The question still occupies the minds of philosophers of very different persuasions today. That is hardly surprising, for no matter how peremptory and ineluctable time may seem to be, it was just as natural to call its absolute, ineluctable reality into question, not so much because everything can be called into question, as because time invited such questioning more than other matters did. Compared with the existence of space or matter, the existence of time has always had something fragile or paradoxical about it, sometimes almost as though it were not genuine at all. Do we perhaps create time ourselves with our experience, our memory, our expectations?

Strictly speaking, of course, it was not always the same question. It already makes a difference whether one is talking about mind, soul or consciousness. Consciousness is the most elementary given, while soul and mind presuppose much more than that. But even when the same word was used, that was no guarantee of identical meaning. Ideas about mind, soul and consciousness varied over the centuries (and often at one and the same moment), while time was taken to refer to different things too. Moreover, all kinds of subsidiary and further questions automatically arose. If time is dependent on mind or consciousness, how and why is it so, and in which respects—and why not in other respects? So many answers had the character of 'Yes, but . . .' or 'No, except . . .', and did not necessarily refer to the same thing.

It is thus debatable whether the question as formulated in the first instance really does have a proper history.

I believe that it does. The following chapters will give sufficient grounds for this belief. Although there is certainly not one and only one issue, there is a coherent cluster of issues. It is striking how many aspects and considerations regularly recur, how much continuity there is amid the unmistakable discontinuity, how many unbroken lines can be detected in this tangle. It is rewarding to note how

familiar ancient ideas may be, as well as to encounter strange speculations. I hope to present all of that.

At times, of course, it proved necessary to touch on related matters. Sometimes a few general characteristics of a philosophical approach are discussed to bring out the purport of question and answer. This is true, for example, of Plotinus, Locke, Berkeley, Husserl, and Heidegger. On many occasions too, the philosophy of time in a more general sense enters the discussion. The advantage of this is that, although this book is not specifically about the history of the philosophy of time as a whole, it does present a fairly detailed picture of that history.

Occasionally it even provides something more than that. I have ventured on a couple of excursions in cultural history, right at the start of Chapter I but above all in the whole of Chapter IX. On the other hand, I have avoided the psychology of time. I realise that the title of this book might lead one to expect a treatment of the history of the psychology of time. That is certainly not what it is about. Important developments in that field (in the French-speaking world, for example, connected with the work of the psychologists P. Janet, J. Piaget and R. Fraissé) are not discussed. Even philosophical psychology had to be left aside in most cases. The present book is about the manner of existence of time itself, not about our knowledge or experience of time. In so far as this knowledge and experience come up for discussion (as with Augustine), it is in connection with the main question.

A final limitation is that the history told here is the history of a part of Western philosophy. I am aware that the topic could have led to interesting comparisons with oriental philosophers. More in particular, Indian philosophy presents similarities with its reflections on the real or illusory nature of time. I regret having had to leave that avenue unexplored for obvious reasons.

The history of Western philosophy had enough problems in store for me. At the same time, one of the most attractive sides of this enterprise was that I had to delve into thinkers who were relatively unknown to me until then. In most cases I have come to appreciate them more; in only a few cases was the closer acquaintance disappointing.

I have been fortunate to receive sound advice at the final stage. I would particularly like to thank my colleagues Theo de Boer, Jan Hilgevoord, Theo Kuipers, Arjo Vanderjagt and Theo Verbeek for

their comments on the chapters that they kindly agreed to read. I owe a heartfelt debt of gratitude to my wife Simone Mooij for her comments on the whole book—and for her help and interest from the very start.

For the English version of this book I have been through the whole text again with a critical eye, making small changes or additions in many places, and substantial ones at a few points. By far the most important addition is to be found in the Epilogue. The text on pages 264–268 is largely new. I hope that my own conclusions and views are clearer as a result.

During this stage I made use of valuable suggestions by Prof. A.P. Bos (Free University, Amsterdam), Dr P.S. Hasper (University of Groningen), and Emeritus Prof. J.D. North (University of Groningen; now in Oxford), in connection with chapters III, II, and IX respectively. I thank them for their comments and for our pleasant conversations and correspondence.

It is with great pleasure that I look back on the amicable cooperation with Dr Peter Mason. We have gone carefully through the whole draft translation together and combined efforts to find a solution in problematic cases. I have particularly appreciated his willingness to grasp my intentions, his linguistic dexterity and inventiveness.

I would also like to thank the Netherlands Organisation for Scientific Research (NWO) for providing a grant for this translation.

When this grant was made in the spring of 2003, Prof. A.J. Vanderjagt offered to include the book in the series “Brill’s Studies in Intellectual History”. I am grateful to him for this token of appreciation and am delighted that the book is now made available in this way.

ACKNOWLEDGEMENTS

I would like to thank Uitgeverij Koninklijke Van Gorcum BV for permission to make use of material from my article 'Hier en Nu', *Algemeen Nederlands Tijdschrift voor Wijsbegeerte*, vol. 94 (2002), pp. 245–260, in the Epilogue.

I would also like to thank Em. Querido's Uitgeverij BV for permission to reproduce the translation (by Henrietta ten Harmsel) of part of a sonnet by P.C. Hooft on page 3.

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CHAPTER ONE

INTRODUCTION: HOW OLD IS TIME?

Many allegories present Time as a winged, almost nude old man. He usually has an hourglass, often holds a sickle or scythe, and is sometimes accompanied by a serpent or dragon biting its own tail. Representations of this kind became popular from around 1400.

Time had been depicted with wings before that, but in most of those cases he was still young. The main source for this was probably the ancient representation of the young Kairos, the personification of the decisive but fleeting moment, the golden but brief opportunity. According to the poet Ion, he was the youngest son of Zeus. He had wings on his shoulders or heels. The major prototype was a statue by Lysippos; it is no longer extant, but has often been copied and represented. In addition there were the representations of Aion, the personification of uninterrupted, infinite time and in that sense of eternity. This figure was often winged too, was attributed various origins, and appeared in all kinds of guises: human or partly animal, young or, in a few instances, old. The cyclical character of this universal and eternal time was emphasised by an appropriate attribute, such as a wheel with the zodiac or a serpent.

The ordinary Greek word for time, however, was *chronos*, which was also personified now and then. In such cases the figure of Chronos represented time in its more actual, human sense. In Euripides he was the father of Aion, but once again he was often portrayed as a young man. Early on, however, Chronos was brought into connection or even identified with the Greek god Kronos, who in turn was later identified with the Roman god Saturn. Saturn was usually represented as an older man. It is from this double connection that the figure of Time as a somewhat disagreeable old man eventually seems to have emerged. The first evidence of the connection between Chronos and Kronos is in an extant fragment of Pherecydes, who lived in the sixth century BC. That proved to be incidental for the time being. In a text that has traditionally been attributed to Aristotle, *De Mundo*, the fact that Zeus exists throughout every period of the

world is taken to explain his descent from Kronos or Chronos, but most scholars believe this work to have been written one or more centuries after Aristotle.¹ Other, more systematic testimonies, in so far as they are extant, do not antedate the Roman era. Plutarch (ca. 100 AD) was an important source. Visual material was equally eloquent. Images on coins and elsewhere indicate that the connection between Saturn and Chronos must have been fairly common by the late Roman era. The fact that the Saturnalia were held around mid-winter may also indicate a relation between Saturn and time.

As the tutelary deity of agriculture, Kronos had the sickle as one of his attributes; he had also made use of it to castrate his father Ouranos. It was a useful ingredient as a metaphor for time, as the scythe was later to become. So was the swallowing of his children by Kronos: time destroys what it brings forth. It is conceivable that this is also the background to Ovid's characterisation of time as greedy, eager to devour things (*edax rerum*).²

The history of the various elements of the traditional allegory of Time with which I began thus goes back a long way. Nevertheless, it only emerged definitively on a large scale towards the end of the Middle Ages. In an essay on the personification of Father Time, Erwin Panofsky suggested that it was above all the illustrators of Petrarch's poem *The Triumph of Time* that must have been the decisive factor. They needed a less attractive figure than the medieval representations: 'Small wonder that the illustrators decided to fuse the harmless personification of 'Temps' with the sinister image of Saturn. From the former they took over the wings, from the latter the grim, decrepit appearance, the crutches, and, finally, such strictly Saturnian features as the scythe and the devouring motif'.³ In a certain sense it was a repetition of what had already taken place before. They set the trend, and their image of Time remained popular down to the eighteenth century. A famous example is Nicolas Poussin's painting from around 1640 *Il Ballo della Vita Humana* (Dance to the Music of Time), where Time, an old man with a beard and colossal wings, is shown providing musical accompaniment on a lyre to

¹ For the passage in question see *De Mundo*, ch. 7, 401a 16–17.

² Ovid, *Metamorphoses* XV, 234.

³ Erwin Panofsky, 'Father Time' in *Studies in Iconology*, p. 80. On Petrarch's poem see below, pp. 113–114.

the main scene: the dance of Poverty, Labour, Wealth and Pleasure. A putto holds his hourglass, and there are various other symbols of time too. Within a short period, Time had been transformed from an attractive adolescent or young adult into a somewhat grotesque, sometimes good-natured but often sinister winged old man. Moreover, the scythe was sufficient in itself to suggest an unmistakable connection with the popular allegory of death as the Grim Reaper.

As Time borrowed certain elements from Kronos, so could attributes of a god of time be attributed to images of Kronos or Saturn. For instance, in the impressive sculpture of Saturn eating his children by Artus Quellien in the Royal Palace on the Dam in Amsterdam, an hourglass lies prominently among the agricultural implements and products at the feet of the god.

Of course, this development left its mark in literature too. One example is a sonnet by the Dutch poet P.C. Hooft (dated 17 February 1610) in which the poet presents Time as a 'swift-flying greybeard'. The octave runs as follows:

Swift-flying greybeard who on wakeful, tireless wings
Goes cutting through thin air, who never strikes his sail
And travels with the wind while all pursuers fail,
Arch enemy of rest, by night and day all things
Are swallowed, torn, destroyed by your hot, hungry glee,
Unconquerable time; the strong, who seem so great,
You turn and overthrow—the ruler with his state.
Too fast for everyone! Then why so slow for me?

Here the poet effectively brings out Time's haste, his voracious greed and the devastating effects of his passing.⁴

This Father Time does not have a scythe or sickle. They are more appropriate to a seated or standing Time. He lacks an hourglass too, although surprisingly enough this instrument continued to be *the* temporal attribute of Father Time, in spite of the fact that the mechanical clock had been invented and was in widespread use by the time that the image of Father Time became established. The clock was

⁴ The contrast with the sestet, in which the poet describes how time drags as a result of his desire for the coming of his beloved, could not be greater. The English translation is by Henrietta ten Harmsel and is taken (with a change in line 3) from her essay 'P.C. Hooft in Translation', pp. 87–88, which includes the Dutch original. On the original cf. also C.A. Zaalberg, *Uit Hoofts Lyriek*, p. 65.

thus available as an attribute, but was only used in that manner very occasionally. Perhaps it was considered too modern for the still strongly mythological and at any rate allegorical context, although the hourglass was a post-classical invention too—or was the hourglass more attractive because of the suggestion of the end, the visible running out of the available time? However that may be, the fact remains. Still, there are exceptions. An interesting one is the allegorical poem *The Pastime of Pleasure* by Stephen Hawes from the beginning of the sixteenth century, in which Time is a winged and feathered old man who bears a clock instead of an hourglass.⁵

Time is thus an old, in fact a very old man. It is true that sometimes, as in the Hooft sonnet, he is still on the move and lively—the destroyer of all is himself indestructible—but nevertheless he is old. Time itself, that is, non-personified time, is not young either, of course. But how old is time? When did time come onto the scene? When did its existence begin?

The latter question recalls the simple question with which Quine formulated the central problem of ontology: ‘What is there?’ He notes that the equally simple answer is: ‘Everything’. This answer would even be accepted by everyone. All the same, this answer does not bring the original problem any closer to a solution.⁶ Something similar applies to the question of the existence of time. After all, the simple and irrefutable answer to the question ‘When is there time?’ is ‘Always’, but in this case too, it does not solve anything. Although everyone could agree with this answer, not everyone would mean the same by it.

That is true in an exemplary fashion of Newton and Leibniz, who engaged in several controversies around 1700, including a famous one on time. Newton was the authoritative and extremely influential protagonist of the notion of absolute time. He argued that certain movements could be shown not only to happen relatively to certain objects, but also to have an absolute character. Such absolute movements required an absolute space and an absolute time. This led him to draw a distinction in a famous passage of his *Principia* (1687) between relative, phenomenal, conventional time, on the one hand, and absolute, true, mathematical time, on the other. The latter flows

⁵ See below, pp. 117–118.

⁶ W.V.O. Quine, *From a Logical Point of View*, p. 1.

evenly on by nature independently of anything outside it. This absolute time, also called duration, has neither beginning nor end and is operative everywhere, just as absolute space has no limits and every part of it exists at every instant. So in Newton's case the answer 'always' to the question 'When is there time?' has eternal value; it implies unboundedness and infinity. Time is thus for him infinitely older than the world. Time existed 'already always' and will continue to exist 'for ever'.

Newton's mentor Isaac Barrow had already propounded the same absolutist view of time, and even in earlier centuries there had been steps in the same direction. It was the success of Newtonian physics, however, which made it so influential. Nevertheless, it was not long before objections were raised. Leibniz was one of the principal opponents.

Leibniz took a relational view of time and space and vigorously opposed Newton's notions of absolute time and space. These notions imply that the world could have been created at a different moment and in a different place than actually happened, and according to Leibniz such a shift of the world in time and space is not a real shift. The idea that the world could have been created previously or elsewhere is a meaningless idea. To start with, God would not have had sufficient reason for that, and it would not have made the slightest difference either. Or rather: there could not have been a sufficient reason precisely because it would not have made any difference. The two versions of the world would have been completely identical.

Time, according to Leibniz, is linked to events, to change. It is only through change that time arises. Time is for him an order of succession, just as space is an order of coexistence. Neither of them would be able to exist in a full, actual sense in an empty universe.

Towards the end of his life, in 1715 and 1716, Leibniz reasserted these views in opposition to those of Newton in his famous correspondence with Newton's follower and assistant, Samuel Clarke, occasioned by a dispute concerning the omnipotence and omniscience of God. Leibniz accused Newton of having underestimated these divine capacities. After all, time and space do not exist independently of God; it was not until 1713 that Newton had explicitly admitted that they are inherent in God. For Leibniz, on the other hand, a creation of time and space without a creation of the world was inconceivable and therefore impossible for God too.

The answer 'always' thus meant something very different to Leibniz than it did to Newton. It meant 'as long as the world exists'. That was not so long in his day. On the basis of biblical evidence, the world was estimated to be about 5,500 years old. According to a calculation which was influential at the time, the creation took place in 3,950 BC, according to another in 4,004 BC, and according to the Jewish calendar in 3,760 BC. John Locke assumed the date of 3,950 BC in his *Essay concerning Human Understanding*. When he was completing it in 1689, he thus took the world to be 5,639 years old. Leibniz may have had a different calculation in mind, but it cannot have made much difference. For him, time was as old as the world.

Of course, other cultures and religions had very different ideas. Like Leibniz, Aristotle had defended the view that there can be no time without change, but he also argued that the succession of changes cannot have a beginning or an end. That was a reason for him to think that time has no beginning or end either. His view on the age of time was thus like Newton's, although with regard to the essence of time his views were closer to those of Leibniz.

Modern views are determined to a large extent by modern science. The theory of the big bang as marking the beginning of the universe is the dominant one. That beginning is supposed to have taken place between 10 and 20 billion years ago, according to the most influential calculation about 13.7 billion years ago. The time and space in which we exist are also taken to have arisen then. That is a long time ago, much longer than a period of some 6,000 years, but it is still a finite period. So the modern, but in principle still Leibnizian theory of the age of time remains in conflict with those of Newton and Aristotle.

However, there is a radically different possibility, in which time is taken to be dependent on mind or consciousness. In this case, the argument is that time in the fullest sense of the word cannot exist without mind or consciousness. That it cannot be experienced or known without mind or consciousness is obvious since that applies to everything, and is thus not at issue here. There must be special reasons why the object of that experience or knowledge, time itself, cannot exist without mind or consciousness.

Kant was one of those who saw things this way. He was even one of the most systematic and extreme defenders of the view that time depends on mind and can only exist by virtue of mind. It is