“... change is not possible in the world; it is only our mind, with its illusion of time, which changes.”

Z is for Zeno

Zeno's paradox is one of the best known tricks of ancient philosophy. Suppose Achilles wishes to overtake a tortoise. He quickly sprints to where the tortoise was walking when he set out. But by now the tortoise has moved on a bit. Never mind, it will only take a moment for Achilles to get to where the tortoise is now — but hang on, by then ... Repeat times n , but rationally, by this account, Achilles can never overtake the tortoise.

Zeno used the absurdity of this paradox to challenge Parmenides' 'proof' that change is not possible in the world; it is only our mind, with its illusion of time, which changes. We may not agree with Parmenides, but how can we escape Zeno's paradox?

Paradoxes are used as thought experiments in philosophy, a sort of test track for ideas. Achilles and the tortoise is a logical paradox. Bertrand Russell offered:

'The town barber is a man living in the town who shaves all those, and only those, men in the town who do not shave themselves.'

So who shaves the barber?

This paradox is far less trivial than it sounds, as Russell was demonstrating the implausibility of any rigorous theory of sets a necessary foundation for certain theories of mathematics.

Eubulides of Miletus described linguistic paradoxes. How many grains of sand does it take to make a heap? Clearly one grain of sand is not a heap, and neither are two. We can go on adding grains of sand and at some point we will decide we have a heap. But at this tipping point do we really not have a heap of sand if we remove a single grain?

Paradoxes show us that both our reason and our language have limits that we tend not to recognise until we get caught out. Language is the cognitive modelling tool that forms our only rational way of handling the world. But language is not a precision tool; it is often fuzzy, and reason doesn't always mesh with the world itself. As Wittgenstein taught us, language is about shared human worlds, not about any guaranteed grasp on the world as it is in itself.

So this final article is a sort of confession. I have talked about how we can know things. I have talked about how we can be a part of the universe and yet, a marvel, be

aware of it, not merely be objects within it. But now I have to admit that a key function of philosophy is to make us much less certain about what we think we know than when we started.

So, please don't take anything you read in a journal too seriously — especially an A–Z of medical philosophy. Reality is slippery and science only gets us so far. Our commitment to one another as fellow human beings is more important. As doctors we should remember that.

CPD further study and reflective notes

These notes will help you to read and reflect further on any of the brief articles in this series. If this learning relates to your professional development then you should put it in your annual PDP and claim self-certified CPD points within the RCGP guidelines set out at <http://bit.ly/UT5Z3V>.

If your reading and reflection is occasional and opportunistic, claims in this one area should not exceed 10 CPD credits per year. However if you decide to use this material to develop your understanding of medical philosophy and ethics as a significant part of a PDP, say over 2 years, then a larger number of credits can be claimed so long as there is evidence of balance over a 5-year cycle. These credits should demonstrate the impact of your reflection on your practice (for example, by way of case studies or other evidence), and must be validated by your appraiser.

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Box 1. Reflective notes

By reading this series has there been any development in your understanding of:

- How we can know things?
- The human condition?
- The proper practice of medicine?
- What further study will you do?

Box 2. Where to go from here?

If you have enjoyed this series then here are some possible starting points for further study:

Warburton N. *Philosophy: the basics*. 5th edn. London: Routledge, 2012.

Sandel M. *Justice: what's the right thing to do?* London: Penguin, 2010.

Campbell A. *Bioethics: the basics*. London: Routledge, 2013.

Or why not sign up for the Diploma course in the Ethics and Philosophy of Healthcare, run by the Society of Apothecaries?

<http://www.apothecaries.org/faculty-of-the-history-philosophy-of-medicine-parm/diploma-in-the-ethics-and-philosophy-of-healthcare/>

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