Thoughts on Time's Arrow and the Apocalypse

The first philosophers considered the difference between the flow of the past and the flow of the future to be irrelevant. Only when they began to take time seriously did their hopes for the future of this world gradually take the place of their quest for knowledge from another world.

Richard Rorty, Philosophy & the Future. Essays

I. Apocalyptic Belief

From time to time, I find myself shocked when faced with the tremendous religious miseducation of my contemporaries. How is it possible that a formerly thoroughly Christian society lost not only its religion, but its knowledge of its former religion in a few centuries?

Even though I am not a Christian, I cannot deny that I am deeply shaped by the Western philosophical and religious tradition in my beliefs. There is nothing controversial in finding that Western philosophy has outgrown religious, i.e., Christian beliefs by now: we live in post-Christian society. It is of great importance to see that post-Christian societies (and philosophy) are still to be distinguished from non-Christian societies which were never Christian in the first place.

I myself do not hold any belief in the supernatural or in God; nevertheless, there are some fundamental ideas I have inherited from or at least through the Christian tradition of our society and philosophy. It is a matter of great interest what kind of person tends to keep those ideas in his or her heart, but this is not the right place to go into this highly difficult psychological question.

Among those still-needed beliefs is the comforting anticipation of an apocalypse. Many people I talk to about this issue are rather surprised to meet someone who finds great comfort in the certainty of the end of the world, also being the end of all life and suffering. But just as any good Christian, I believe the apocalypse to be a redemption. Life is vain, and the only thing certain is eternal death.

Of course, there are several apocalyptic visions the modern scientific apocalypticist may choose from according to his or her own liking, in recent times the most popular being the destruction of Earth's ecosystem by the human species and the extinction of the human species as a result of the pushback of Earth's ecosystem. A little bit old-fashioned, but, in my view, by no means outdated, is nuclear holocaust, which reached its peak of popularity during the Cold War. The few who are not satisfied by these visions – such as myself – may find the ultimate representation of apocalyptic belief in cosmology and thermodynamics, according to which our universe cannot persist but must resolve in chaos and uniformity; I cannot claim to have met anyone able to relate to this abstract belief so far though.

It might be superfluous to point out that these visions, from a scientific point of view, might be true or false (or might turn out to be so eventually); but that this is only of minor interest to the apocalypticist who holds them.

II. The Eternal Recurrence of the Same

This being said, it might now become clear to the thoughtful reader why Nietzsche was so disturbed by his idea of eternal recurrence, which is nothing but the absence of a final redemption, i.e., an apocalypse. Outside the Western world, indeed, in the Western pre-Christian world, this really was the general view. Be it in ancient India, Greece, Peru, Japan or China: the common assumption was that the universe had always been there, and would be there for ever, iterating the same cycles of the day, of the year and of birth and death ad infinitum. Yet, there is no evidence that these people were in great despair considering their cosmology – they just did not "take time seriously", as Rorty would say.

Could they possibly understand my need of apocalyptic belief?

I suppose that the first philosophers who took time seriously are the Christians. Socrates and Plato did not believe in the end of the world, but tried to gather knowledge from another world, as Rorty says correctly. Plato places his ideal state in the distant past, not in the future. The Christian belief in an "end of history" (Fukuyama) persists in the secular ideologies of modern times, as has been depicted grippingly by John Gray in his book *Black Mass*.

It has sometimes occurred to me that even the belief in other-worldly knowledge was a mistake in the very first place, or at least has been a huge damage

III. Life and Physics

I have always believed that the direction of the flow of time, commonly referred to as "time's arrow", had not only a physical, but also a teleological meaning, and I like to think that we all do, indeed, by nature when it comes to our individual life: we believe that we evolve, that we improve ourselves and grow beyond ourselves. On a small scale, we all believe that the future is more important than the past; if it was not so, we could not try to make it better.

In physics, however, this is obviously not so. Einstein, certainly the most important physicist when it comes to time, has stated in a letter that "the difference between past and future is but an illusion, though a persistent one". Time is described as the fourth dimension, not essentially different from the three spatial dimensions. A human being, over the course of its life, appears to be a thin "worm" in the four-dimensional space-time, as Sir Arthur Eddington has put it; i.e., life seems to lack any progress when viewed from a broader perspective. I was very disturbed by this idea for a while, and still cannot claim to have overcome it; I wondered, if all my life has already been lived – since the future already exists just as do past and present – why should I live it? And why making the effort to gather more and more knowledge if I can only really have it in the future, never the in unchangeable past? I realise, however, that these questions only expose my and, I suppose, any human being's inability to grasp the idea.

We have made a huge progress (if indeed there is something like progress), but we – humans – are still very bad in thinking about time, and we can still do it in terms of space, location and movement. Yes, movement: I believe my life to be a movement towards something, some final destination and end. And if we all believe so, are we not teleologists from an early age – the age we think about time and life for the first time?

I tend to think that life simply ought not to be seen from a broader perspective only. But maybe modern physicists give us insights which philosophers have forgotten for a long time: that "the difference between the flow of the past and the flow of the future [is] irrelevant"; or even that

there is, from a broader perspective, no such flow – bringing to mind the philosophy of Parmenides of Elea.

IV. Unlearning Apocalypticism

For some time, I held my apocalyptic beliefs with a rather religious attitude and devotion, indeed, with the pleasant, but not respectable pride of someone who thinks that he or she has discovered a valuable truth only shared by few. After a while, I came to regard them as useful narratives which might be accurate or not. But as I have learned about non-apocalyptic philosophies, philosophies which presume no redemption, no end of history and no teleology, I find myself thinking that my need for apocalypticism – whether or not it is, from a scientific point of view, justified or not – is but a personal weakness.

Most of us hold some beliefs they need to hold to comfort the soul, and I like to think that those who do not need any teleological truth are either gods or fools – which might be the same, after all. But as we look back to different times and different parts of the world, we can see that people could live without teleological beliefs for a long time – sure, most of them were fools, and most ages were foolish. But not all of them, in fact, some were philosophers, some were advanced cultures – cultures who held other beliefs, other narratives, other *myths*.

Oh, should it be impossible to resolve the outdated conception of time and history? Should it be impossible to unlearn teleology? To replace the myths by others, by better? Because one thing is for sure: apocalypticism is depressing; there is a tiredness in it, a tiredness of life, of the ever-recurring cycle of birth and death, the tiredness for which Nietzsche criticised Christianity as well as Buddhism and the Schopenhauerian pessimism of his time.

Philosophy is concerned not only with truth, but also with myths. Some philosophers might argue about language, science or perception; but there ought to be some philosophers – and maybe every philosopher has to do this in part – whose job it is to make sense of the world around us. Making sense, creating meaning, inventing myths, is all the philosopher's field: you and me, we are looking for meaning in our own lives all the time, we mythologise it every day – we tell the stories of our lives to ourselves. The philosopher, however, is not just concerned with the meaning of his own life – even though this might be his or her starting point –, he or she is concerned with all human life (and beyond). It is one of the most important tasks for future generations of philosophers to create new myths of history, myths not too naïve and yet inspiring, myths grasping at once the incredible cruelty and greatness of human history and life.

But of course, it is not easy to do this from scratch. We turn back to Rorty and his early philosophers; they may help us to change our perspective.

V. A New Epicureanism

It is very hard not to be sympathetic with Epicurus. In most peaceful hours, when sitting in the garden with a good book on mild summer afternoon, I have sometimes thought of his philosophy and some decent quotes of him and smiled. He must have been quite a personality, hanging out in the garden with his friends all day and just enjoying his life; truly an inspiration. Did he need apocalypticism? Certainly not. In his view, the universe was an infinite process of recombination of atoms in an infinite space. There is incredible variation, myriads of possible combinations of atoms; but the atoms are always the same. On some level, nothing changes, and time does not matter. There is no beginning and no end of this meaningless, but fascinating process. I presume that Nietzsche was not the first to think of eternal recurrence of the same, it must

have brushed Epicurus's mind as well. There is a finite number of possible combinations of atoms within a certain space so that in an infinite time every possible combination must have occurred infinitely often – and will so. But this seemed not to be disturbing at all to Epicurus and his followers.

In the atomistic model – to their credit, a model taken from Leucippus and Democritus – there is also no difference between past and future. There were infinite combinations of atoms in the past, there will be infinite combinations of atoms in the future, the present being only one random permutation of the atoms of the universe. The Epicureans had no reason for hope: the world could become better or worse – in the long run, neither.

But I dare say: Epicurus did not even search for the knowledge of another world, and in this I think him higher than Socrates and Plato. (The atomic scale might well be called another world, but there was not really much to know about it.) Oh, may this long despised and derided spirit rise from the grave, or if you will, from the dusty bookshelves of Ancient Greece, and not only Ancient Greece. Modern physics has dismissed the speculations of ancient times, and yet they carry great value – at least for me.

I may well try out some other beliefs after holding the apocalyptic ones for so long; and I know the answers to be in the past at the very beginning of philosophy. Epicurus might just be my first teacher on a journey out of time.

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