

CAN ATOMS MAKE YOU HAPPY?¹

John Penwill

The first thing to understand is that there is no other purpose in gaining knowledge of meteorological phenomena, whether in conjunction with other doctrines or in isolation, than peace of mind (ἀταραξία) and firm conviction (πίστις βέβαιος), just as with all the rest.

Epicurus *Letter to Pythocles* 85

The Greek philosopher Epicurus established his school in Athens in 306 BCE. He was a prolific writer; the one biography that survives, that of Diogenes Laertius, claims that the full body of his writings occupied around 300 books (i.e. papyrus rolls) ‘without a single citation from other authors’²—well, so Diogenes said, but Diogenes was a fan;³ Epicurus’ detractors accused him of plagiarising heavily from the fifth-century philosopher Democritus, for reasons which will become obvious. Diogenes’ selection of Epicurus’ greatest hits at 10.27-28 comprises 41 titles occupying 87 books, including the monumental 37-book treatise entitled *On Nature*, the content of which is summarised in the surviving *Letter to Herodotus*. This enormous output was reduced by one of his followers, the first century BCE philosopher and poet Philodemus of Gadara, himself a prolific writer on Epicurus and his philosophy, to four basic propositions, the so-called Tetrpharmakos or ‘medicine with four active ingredients’: God is nothing to be afraid of, death is nothing to be worried about, the good is easy to get, the dreadful is easy to endure.⁴ There are two important points that this raises. The first is that Epicureanism sees its primary purpose not as pushing the boundaries of human knowledge for its own sake but as putting human beings on the road to achieving peace of mind; it is a cure for what Epicurus saw as an all-pervasive spiritual malaise. The second is that Epicurus and his followers were well aware that the path to gaining adherents did not lie in bombarding them with gross information overload but in producing readily comprehensible and uplifting summaries which conveyed the essence of the Epicurean philosophical message. The long treatises are for the intellectual heavyweights.

Epicurus himself had already condensed the essence of his teaching into a set of 40 so-called ‘Principal Doctrines’;⁵ the first four of these correspond more or less to Philodemus’ Tetrpharmakos. The first two,⁶ dealing with the gods and death, are concerned with removing intellectual clutter that is not only unnecessary but in fact has a negative impact on individual well-being. If we understand nature aright, we will be much better placed to achieve

1 This is a slightly modified version of talks given to the Bendigo Philosophy Society and in the Department of Philosophy and Religious Studies at the University of Waikato, Hamilton, New Zealand during October 2009. I thank members of both groups for some interesting and lively discussion.

2 DL 10.26.

3 Diogenes’ *Lives and Opinions of Eminent Philosophers*, written probably in the third century CE, comprises ten books. The final book is devoted to Epicurus as the culminating point in the history of Greek philosophy.

4 ἄφοβον ὁ θεός, ἀνύποπτον ὁ θάνατος, τὰγαθὸν εὐκρητον, τὸ δεινὸν εὐεκακέρητον.

5 Preserved by Diogenes in the final part of his tenth book (10.139-54), where they are described as the ‘finishing touch’ (κολοφών) to the entire work and as εὐδαιμονίας ἀρχή, the ‘foundation of happiness’.

6 On *Principal Doctrine* 1 see Penwill (2000), 20-26.

the Epicurean goal of peace of mind. A century before Epicurus, the philosopher Democritus⁷ had argued that reality comprised two elements only: the one being the primary particles of matter which he called ‘atoms’ and the other the space in which they move, which he called ‘emptiness’ or ‘void’. The universe is infinite with respect to space and time, and the material contained within it is likewise infinite; matter itself is indestructible (the word ‘atomos’ means ‘uncuttable’, and it is uncuttable because it contains no void). Within this infinite universe the atoms are in constant motion and are constantly colliding; when they do, they either bounce off each other or link together to form compounds. This linkage is the beginning of the formation of world-systems or *kosmoi*; there is a never-ending process of world-systems coming into being and disintegrating. (We tend now to talk about parallel or multiple universes; but in truth the phrase ‘multiple universes’ is a complete oxymoron, since ‘universe’ means ‘everything’ and you can’t have a multiplicity of everything. So I will talk instead of world-systems, of which in the Democritean universe there were an infinite number.) Atoms never stop moving; when caught in compounds they vibrate, which means that any compound is inherently unstable and cannot last forever. Every compound from the most complex world-system down to the most minuscule life-form within it goes through the process of birth, growth, maturity, decline and death; and that applies to us humans as to everything else. Life begins as the particles of which we are composed come together in the womb, a biological process we share with all mammals; it ends when the organism is no longer able to sustain itself or is dissolved by external factors (violence or an influx of destructive particles that manifests itself as disease). Consciousness and rationality, themselves a function of the interaction of particles within the organism, cannot exist independently of the organism as a whole; once the organism has ceased to function, consciousness also ceases. As an aside, it is interesting to observe that in the tradition Democritus acquired the soubriquet ‘the laughing philosopher’; he is portrayed by the Roman poets Horace and Juvenal as responding with laughter to the cares, concerns and follies of humankind and to problems that arose in his own life.⁸ Empirical evidence we might say from one of the founders of Greek atomism that atoms can make you happy. We might also note that Democritus wrote a treatise *περὶ εὐθυμίας* (‘On Good Spirits’) in which to judge from the surviving fragments he as Epicurus was to do applied his materialist doctrine to advice on avoiding disturbing motions in the soul.

So what are these atoms? Greek atomism arose out of and as a response to two basic Parmenidean propositions; first, that the only thing you can predicate of anything is that it is, and secondly that what is cannot come-to-be from what is not. Parmenides of course proposed that reality comprised a singularity in which motion and differentiation of any kind was logically impossible; the world in which we live (and our own existence in it) is in some sense illusory. Atomism multiplied Parmenides’ singularity into an infinity of particles of existence stuff (what is) moving at atomic speed through space or the void (what is not); neither can ever become the other, but the particles themselves through their combinations and separations restore veracity to the multiplicity of processes and phenomena that we observe in the world around us and to our own existence. By thus reconciling the way of truth and the way of seeming we can show that the phenomenal world is grounded in a fundamental reality; it is satisfying to know that when Achilles does overtake the tortoise we are not suffering from some sort of delusion.

7 On Democritus see Kirk, Raven and Schofield (1983), 402-33. Democritus like Epicurus was a prolific writer; for a list of his works see DL 9.46-49.

8 Hor. *Ep.* 2.1.194-98, Juv. 10.33-53.

Democritean atomism had a profound effect on Epicurus and is fundamental to his cosmology, despite the significant modifications that he made to it. Its attraction is that it enables us to conclude that the formation of the world in which we live and all the phenomena we observe within it (including our own existence) are completely explicable by the laws of physics. A god who creates and subsequently controls the world which he/she/it has brought into being is excluded by the principle of Ockham's Razor, as an unnecessary multiplication of causes. This is not to say that Epicurus denied the existence of the gods; far from it. But what he did deny was that the gods have any role to play in the world we inhabit. As Principal Doctrine 1 and the corresponding instruction from the *Letter to Menoeceus* (LM 123) show, they could have no possible motive for doing so.

Before exploring that issue further, let us for a moment consider a modern theory. Big Bang cosmology postulates that the universe had a beginning; we are not allowed (apparently) to ask what happened before the Big Bang, because time did not exist. Nor, apparently, did the laws of physics. Enormous research consuming enormous research grants have gone into developing mathematical formulae to determine what occurred within the first few nanoseconds after the Big Bang; but essentially what we have is the proposition that at a particular point and for no determinable reason (since there were no laws of physics to determine it) singularity became plurality, the one became many, and things have gone on in an ever-expanding universe ever since. This is in fact a very primitive idea; in Greek thought it goes back to the first extant writer on the gods and the development of our world, Hesiod, a contemporary of Homer writing in the 8th century BCE, who in his poem the *Theogony* declares that the first event was the coming-to-be of Chaos.⁹ This does not mean what we today might think it means; the word Chaos derives (like the word 'chasm') from the root of the verb $\chiαίνω$ and means 'wide expanse'. In other words, the first 'event' was the appearance (for which no reason is given) of space. It is said that what led Epicurus to take up philosophy in the first place was the fact that no-one could explain to his satisfaction what this meant;¹⁰ the conclusion has to be I think that no satisfactory explanation could exist. Democritus in the fifth century BCE had already gone past the notion that space somehow came into existence at a particular point, that the universe as a whole has a beginning. What Epicurus would say about Big Bang cosmology is that through it we are seeking to explain how our particular world-system came into being, and he would certainly dispute the use of the term 'universe' to denote it. Within the infinite universe there is room for an infinite number of world-systems, each at varying stages of development; we do not perceive them, because our vision is limited to what takes place in our own world. What lies beyond is only accessible noetically, to one who as Lucretius puts it has 'advanced beyond the flaming ramparts of the world'.¹¹ And as far as the mechanism whereby this system came into being is concerned, Epicurus would I am sure admit that our knowledge of the behaviour of elementary particles is more sophisticated than his own in terms of observation; but in terms of philosophical principle would never admit that what happened occurred outside the laws of physics. To admit that is to admit that it is beyond understanding; and to admit that it is beyond understanding is

9 'Tell me from the beginning, you Muses, who have your homes on Olympus, and say which of them came to be first of all./Indeed, the first to come to be was Chaos, and after that/broad-bosomed Earth...' (Hes. *Theog.* 114-17).

10 DL 10.2, citing Apollodorus the Epicurean.

11 Lucr. *DRN* 1.72f., *et extra/processit longe flammantia moenia mundi* ('and went forth far beyond the flaming ramparts of the world', of Epicurus).

to admit the possibility that some transcendent being had a hand in it. Humankind has always turned to God to explain the inexplicable.¹²

Reason, though, tells us that the gods cannot have created this world and can have no hand in its operation. There could be no motivation for a being in a state of perfect blessedness to undertake the creation of a world; nor are the gods such as to be moved by feelings of anger or gratitude so as to intervene in the world. Belief in divine providence may appear comforting, but in reality it is both delusive and dangerous. It is dangerous because it is the foundation of religious belief, which is in turn the foundation of organised religion and orthodoxy. As Lucretius points out, religion is responsible for appalling acts of criminality;¹³ the example he uses is that of Agamemnon who sacrificed his daughter because a priest told him that that was the way to get the wind blowing in the right direction for his fleet to sail to Troy. The suicide bomber or 9/11 pilot who believes that killing yourself in the process of killing and maiming large numbers of innocent people is a direct pathway to paradise is but the most recent in a long line of the similarly deluded. And essentially this arises from a combination of arrogance and ignorance. The arrogance lies in believing that the human race has some special significance in the overall scheme of things, that it was created and placed on the earth to fulfil a particular divine purpose and so has a special relationship with God or the gods; in believing too that the consciousness and reasoning power we possess are themselves divine gifts and must therefore continue their existence after our lives are over. The ignorance lies in not understanding the true nature of the gods or the human organism; if we did, we would realise that our religious beliefs are simply untenable.

What we must have the courage to accept is that the gods have no role to play in our world and that all consciousness ends with death. That is the logical consequence of atomist doctrine; it is also a necessary precondition for genuine happiness. Once we recognise the truth about the world and our existence in it, we can start thinking about the appropriate way to conduct our lives; but while our minds are clouded with erroneous thoughts about interventionist gods and how they will deal with our souls after we die, we have no chance of making rational choices. Instead we are at the mercy of religious hierarchies who make decisions for us. The idea that we are essentially alone in an insensitive and uncaring universe and that ultimately life has no meaning but simply exists as a consequence of physical and biological process may not at first sight seem all that comforting; but for Epicurus the alternative is far worse. The positive side is that we no longer need to worry about how God or the gods are going to react to what we do or about what will happen to us after we die. Since there is no assistance to be hoped for from divine intervention, we have to learn to help each other; and since this life is all we have, our chief aim must be to make it as free from disturbance as possible. What we need for ourselves is peace of mind; our moral duty to others is to maximise their ability to attain this also. But this cannot be based on a lie or through the perpetuation of ignorance.

The question has to be asked whether we have the collective maturity necessary to cast ourselves adrift in this way. Religious belief has powerful attractions; it gives us a sense of importance and a system of values underwritten by divine sanction that absolve us from the difficult and painful task of working them out for ourselves. The parable of Dives and Lazarus is emblematic;¹⁴ it is very comforting to feel that those who have oppressed us politically

12 The *locus classicus* here is Lucr. *DRN* 5.1161-1240.

13 Lucr. *DRN* 1.82-101.

14 See Luke 16: 19-31.

or economically during our lifetime will rot in hell after they die while we enjoy the happiness that was denied to us. The ethical system Plato sets up in the *Republic*, despite protestations that the just life is an inherent good and should be chosen for its own sake, ultimately relies on this transcendent sanction as the concluding Myth of Er with its image of the writhing Ardiaeus and the fear that that engenders shows (*Rep.* 615e-616a; compare also the myths of the *Gorgias* and *Phaedo* with their emphasis on post-death rewards and punishments). And if we take away this divine underpinning, what is left except to pursue a life of aimless self-indulgence such as that portrayed by Socrates at *Rep.* 586a-b? The hedonistic lifestyle of the West and its seemingly ever-increasing reliance on drug-induced euphoria have often enough been associated with a decline in religious belief. Without the presence of God as some kind of moral enforcer, we can do what we like; but as when children grow up and leave home to set up their own lives, we have to realise that with freedom comes responsibility. God may not be there to punish you, but actions still have consequences.

In fact, Epicurus in spite of his materialist philosophy did not write the gods out of the equation.¹⁵ He was well aware of the pervasiveness of religious belief among his contemporaries; and while he felt that much of this was mistaken, he also felt that it could not be based on nothing. Human beings seem almost naturally programmed to be religious; today some scientists even talk about the ‘God gene’.¹⁶ As Epicurus puts it in the *Letter to Menoecus*, ‘Gods do indeed exist; we have clear knowledge of them. But they do not exist in the way the many believe of them’ (*LM* 123). The fact that we recognise ‘god’ as a meaningful concept requires that there be something that has impacted on our souls in order to generate this concept. Democritus had assumed that the gods existed within the worlds and were not immortal but simply more long-lasting; but Epicurus went further. Invoking the principle of *isonomia* or balance, he held that for every world-system that came to be and will eventually perish there is a being in a constant state of equilibrium, always and forever taking in as much matter as it gives off.¹⁷ These are the gods; they live in the spaces between the *kosmoi*, and while they are as material in their composition as anything else in the universe, their substance is quite unlike anything that exists in our world. As already stated, all atomic compounds are unstable; this means that they are constantly shedding their surface images, which by their impact on our eyes enable us to see them. Normally these do not travel very far and certainly cannot penetrate the barrier that surrounds the individual cosmos. But the images given off by the gods not only traverse the vast distances of inter-cosmic space but are of such a kind that they can penetrate not just the boundary of our world but also our bodies; we do not perceive them with our eyes but because they impact directly on our souls. That is why human beings everywhere have a concept (what Epicurus calls a *prolepsis* or basic grasp) of god. But where human beings have gone wrong is to ascribe to these beings an interest in what goes on in our world, where in fact they have none. Their value to us lies not in what they might be willing to do for us if we perform the correct rituals, but rather in providing models of existence for us to aspire to; they live out there in space in a state of perfect peace and friendship. It is a fundamental principle of Epicurean physics, as for all post-Parmenidean cosmology, that nothing can come from nothing, and that also applies to our aspirations. The gods supply us with images of a life of utter serenity and peace of mind; without that stimulus

15 On the gods in Epicurus’ philosophy see Penwill (2000), Penwill (2009), with further bibliography there cited; Warren (2009), 238-42.

16 Hamer (2004).

17 For the use of the doctrine of *isonomia* in this argument we are reliant on Cic. *ND* 1.50.

we would have no sense of a ‘something better’ to aspire to. By meditating on these blessed and indestructible beings in the way that nature allows us to do, we can hope to capture some of their peace of mind and live, as Epicurus tells Menoeceus he can live, as a god among men (*LM* 135).

The advice Epicurus gave to his followers was to withdraw from the world of politics and greed into a community in which these more positive ideas could be fostered and practised. It is worth stressing here that the Athens in which Epicurus was working was radically different from that of Plato and Aristotle. The conquests of Alexander the Great and the division of his empire into individual kingdoms after his death in 323 BCE meant that Athens was no longer the politically independent city-state that it had once been but part of the kingdom of Macedonia. Major policy decisions which had been the absolute prerogative of the Athenian *demos* were now taken by remote individuals in distant capitals and supported by vast mercenary armies; and Athens itself for the ten years immediately prior to Epicurus setting up his school there had been under the control of a Macedonian-backed dictator, Demetrius of Phalerum. Both Plato and Aristotle saw a clear and close connection between politics and ethics; the task of the legislator (or the philosopher ruler in Plato’s case) was to create and supervise a set of laws and constitutional arrangements which would maximise the well-being of the individual citizen. For Plato this meant each person being enabled to perform that task for which s/he was best suited; for Aristotle this meant a legal system which encouraged each citizen to act in accordance with the requirements of moral virtue (and some of course to become philosophers). In Book 1 of the *Nicomachean Ethics* Aristotle declares that the one end we aim at for its own sake, and the one towards which all our actions are ultimately directed, is the acquisition of *eudaimonia* or happiness (see esp. *NE* 1.7). Acting virtuously is a means to that end and so the legislator’s task is not just to ensure that society runs well but in fact to enable each citizen to attain that goal to which we all aspire. For both Plato and Aristotle the independent city-state, the *polis*, was the context in which this was to be done. But in the post-Alexander world the *polis* was effectively dead; and so for Epicurus the community in which human beings might find their way to happiness and self-fulfilment lay not within the *polis* but outside it. And this meant also a radical break from the traditional *polis*-based theology and social structures.

Plato’s Academy and Aristotle’s Lyceum were essentially aristocratic in the political philosophy they taught; both saw themselves as training grounds for future political leaders, who were to turn their communities into the kind of ideal states envisaged by their founders. (Demetrius of Phalerum was himself a graduate of the Lyceum, which doesn’t say much for the practicality of this professed outcome.) Epicurus abandoned both the cultic associations and the aristocratic outlook of these schools in favour of a community of a very different kind. Membership was open to anyone, including women, resident aliens and slaves, the disenfranchised majority of democratic Athens, and the school was not named after a local deity (as were the Academy and the Lyceum) but simply termed ‘The Garden’. (Stoic philosophy, which in its early days before it became respectable was similarly radical in outlook, derived its name from an equally unprepossessing source: the Stoa or colonnade in which its members met.) But we should not imagine the Epicureans as walking round something like the Fellows’ Garden of an Oxbridge college having deep thoughts about the meaning of life (or in the Epicurean case, its lack of meaning); the garden was very much a practical one.¹⁸ With-

18 This seems the natural conclusion to draw from the fact that Epicurus’ garden was termed κήπος (DL 10. 17, citing Epicurus’ will) rather than παράδεισος, although more recent commentators tend

drawing from political life meant that the school was thrown very much on its own resources; the garden was for growing food. The Epicurean community in fact had much in common with the hippie communes of the late 20th century. The garden enabled a practical application and illustration of the Master's teachings: that wealth and luxury are not necessary for a pleasant life and are indeed inimical to it, that friendship and a true sense of community are our best means of dealing with the limitations imposed by nature on human existence, that the *polis*-based systems of Plato and Aristotle have nothing to offer when it comes to the issue of answering that fundamental question of Greek ethics: πῶς δεῖ ζῆν; 'How should one live?'. Further, active engagement with the garden brought the community into direct contact with that natural process of birth, growth, maturity, decline and death that I spoke of earlier, reinforcing the sense that we humans are part of nature, not some special category of being whom the natural world has been created to serve. The growth and harvesting of a cabbage can provide a real lesson in the way nature works, the way each species accrues to itself the particles that enable it to grow and in the case of edible plants the way we accrue to ourselves the particles contained within it that enable us to grow or sustain ourselves and reject what we do not need. One could hardly think of a better context in which to absorb the Master's teachings.

So, to return to the topic of this paper, can atoms make you happy? Thus far I have been talking about the way in which knowing that atoms are the building blocks of every object in the universe and that atomic motion supplies all the energy required to enable the process of coming-to-be and passing-away to occur, together with the consequences of that knowledge in terms of eliminating god or the gods from any controlling influence over natural processes and showing that no part of the individual organism can survive the dissolution of the particles of which it is composed, mean that we can get on with our lives knowing that there are no duties imposed on us by the gods and that there is no afterlife in which we may be punished for not performing those duties. *This* life is all we have; so far from withdrawing from it and making our whole life a kind of rehearsal for death as Socrates advocates in Plato's *Phaedo*,¹⁹ we need to embrace it and make it as positive an experience as possible. It is up to us to formulate the rules by which we live, and those rules are founded not on a set of god-given precepts but on the basic common-sense principle essential for any community to function: don't hurt me and I won't hurt you.²⁰ If this principle were to be universally accepted and practised we would have nothing to fear from our fellow human beings either; unfortunately the fact is that we have more to fear from them than from the gods. Hence the need to form communities of our own and attempt to convert as many others as possible.

Another point. As we have seen, Epicurus holds that the reason we study physics and the natural sciences is to acquire the understanding that our lives along with everything else are part of an overall natural process in which the gods have no role to play. It is not the earth-shaker Poseidon who causes earthquakes; it is what today we would call the natural movement of tectonic plates, itself a consequence of the way in which the world took shape at its beginning. Here it may be objected that this is not going to be much comfort to someone dying a slow and agonising death crushed beneath a concrete slab dislodged by an earthquake. It

to downplay this aspect of it. One of the better accounts is still that of Farrington (1969), 11-13, though I do not agree with his assertion that the actual task of gardening was confined to slaves (12). In the *Odyssey* κῆπος is used for the gardens of both Alkinoos and Laertes, both eminently practical and highly productive.

19 See esp. *Phd.* 64a-69e.

20 *Principal Doctrines* 31-33.

may of course help to know that the fact you are in this situation is not due to God being angry with you and that this is not the precursor to some even worse punishment after you die from your injuries. Such a situation would obviously be dire whatever one's belief-system; the fact is though that it happens and it happens because that is the nature of the world in which we live. And since it and other appalling things can so readily happen, we need to ask how we are expected to cope when things go so horribly wrong. Is this the worm that destroys the rose in Epicurus' garden? Is fear of the gods simply to be replaced by fear of natural disasters like earthquakes, tsunamis, typhoons, cancer or the great pandemic that will one day descend on us to effect a natural correction of the gross overpopulation of this planet by human beings?—not to mention disasters caused by human agency, such as wars, genocides, tyrannies and the like.

In order to answer this, we need to look at happiness from another angle. What exactly *is* it? For both Plato and Aristotle it clearly resides in the soul: for Plato in the *Republic* it is a consequence of the three parts of the soul acting in harmony, each performing its proper function; for Aristotle in the *Nicomachean Ethics* it is activity of soul in accordance with the highest virtue, which for him is the intellectual virtue of contemplation.²¹ For both, this condition is enjoyed in the fullest measure by philosophers in the practice of their profession (funny, that!). For Epicurus also the soul is where happiness or spiritual well-being resides; it is therefore necessary to look more closely at the soul as Epicurus conceived it.

For Epicurus the human organism is made up of body particles and soul particles. This is so from the moment of conception to the moment of death, which for Epicurus as for Plato is the separation of soul from body. But Epicurus rejects Plato's notion that the soul is incorporeal, first because the only incorporeal entity is the void in which matter moves and if you believe the soul to be something then it cannot be void, and secondly because it acts upon the material body causing it to move and perform all its other functions, and the immaterial cannot be thought to act upon the material. The soul is as material as the body; it is made up of particles of extreme lightness and volatility, spherical in shape and thus unable to cohere in the way that body particles do.²² Soul in fact cannot exist on its own, and requires a body to contain it; which of course is why it cannot be thought to survive death. Particles of soul are found all over the body, but the biggest concentration, the seat of feelings, emotions and rational thought, is located in the chest cavity (what we might call the central nervous system). Soul particles in other parts of the body account for sense perceptions, all of which are explicable in terms of touch, the impact of particles from outside. It is these that give the sensation of pain when I touch a hot stove, which causes violent perturbation first in the body particles of the hand and then in the soul particles underneath the surface; this is transmitted through soul particles each acting as a kind of cue ball imparting motion to the next in the chain until it reaches the chest; it is in the chest that the decision is made and the motion set up to remove my hand from the pain source. The almost instantaneous reaction shows how fast this process is; these particles move at a rate close to atomic speed, defined as covering an inconceivably great distance in an inconceivably short space of time.

The lesson we can draw from this observation is that pain and pleasure are the chief motivating factors of human behaviour; we seek to avoid the former and embrace the latter. In the *Letter to Menoecus* Epicurus elevates this to a universal principle: '...pleasure is the starting-

²¹ *Rep.* 576b-592b; *NE* 10.6-8.

²² For the Epicurean view about the nature of the soul see *LH* 63-68 with *Lucr. DRN* 3.94-416 (followed by arguments for the soul's mortality at 3.417-829).

point and goal of living blessedly. For we recognised this as our first innate good, and this is our starting-point for every choice and avoidance...²³ Epicurus is of course on dangerous ground here, since to elevate pleasure to the status of highest good, virtually equating it with happiness, is to lay oneself open to the charge of being nothing but a hedonist; a charge which his detractors have been only too ready to level at him and which survives to this day in the meaning we now attach to the word ‘epicure’. Well aware of this fact, Epicurus points out that while every pleasure *qua* pleasure is a good and every pain *qua* pain is an evil, not all pleasures are to be chosen nor are all pains to be avoided. A body that is healthy and a mind that is free from disturbance (taken over by Juvenal in that memorable phrase *mens sana in corpore sano*)²⁴ is what we ultimately seek; if we spend our lives in a Faustian pursuit of pleasure there will be a painful price to pay at the end. Socrates in fact is represented as arguing much the same case, equating pleasure with good and pain with evil, in the closing stages of Plato’s *Protagoras*. For both Socrates and Epicurus, we do not blindly choose whatever pleasure is offered us or avoid whatever pain; we apply our rational faculty to consider future consequences. To say that pleasure is our chief motivating factor is simply to state what empirical observation shows to be the case; we do withdraw (or feel a powerful motivation to withdraw) from painful situations and find ourselves drawn to pleasurable ones.

Epicurus in fact distinguishes between two types of pleasure, to which he applies the terms kinetic pleasure and catastematic pleasure. Both have to do with motion of soul particles, particularly those located in the chest, identified earlier as the seat of feelings, emotions and rational thought. Kinetic pleasure is that which we feel as a consequence of external stimulus, and the mechanism is very similar to that which operates in the case of pain. This is the pleasure we get from beholding a beautiful scene or favourite work of art, hearing beautiful music, savouring a top quality red wine, smelling the roses, stroking the cat, being caressed by a lover or contemplating the excellence of a cabbage one has grown; external stimuli which set up certain corresponding motions and interactions among the soul particles which we identify as feelings of pleasure; the intensity of that pleasure is itself a function of the way in which the particles are stimulated to move. (The process is in fact the same *mutatis mutandis* as external stimuli inducing motions that we identify as pain.) Aristotle expressed the view that pleasures of this kind are necessarily temporary (*NE* 10.4) but we can reproduce them through recalling in memory or through photographs that beautiful scene or artwork which so moved us when we first saw them, allowing a favourite piece of music to wander through our minds or having a sexual fantasy. However, as we shall see, these pleasures need to be treated with caution and are an index of the difference between our mental make-up and that of the gods. Catastematic pleasure on the other hand is much more the condition of the organism at rest; the slow, steady, relaxed motions of the soul particles when we are asleep or meditating—or in that condition which Epicurus regarded as the goal, that of *ataraxia* or the state of being unperturbed.

In discussing Epicurus’ views on pleasure and happiness there are certain sayings of his that need to be carefully considered. One is *Principal Doctrine* 3:

The limit of the magnitude of pleasures is the removal of all that is painful. Wherever a pleasurable feeling is present, there is neither a feeling of physical pain nor a feeling of mental distress, nor both together.

²³ *LM* 128-29, tr. Inwood and Gerson.

²⁴ *Juv.* 10.356.

Another is this quotation from Epicurus' work *On Choice and Avoidance* preserved in Diogenes Laertius (10.136):

Unperturbedness (ἀταραξία) and freedom from physical pain (ἀπονία) are katastematic pleasures; but joy (χαρά) and delight (εὐφροσύνη) are seen from their activity to be pleasures in motion (κατὰ κίνησιν <ἡδοναί>).

And the third, from the *Letter to Menoecus* (131):

When we say that pleasure is the goal we do not mean the pleasures of the profligate or the pleasures of consumption, as some believe, like those who disagree with us through ignorance or those who wilfully misrepresent us; what we mean is absence of pain in the body and absence of perturbation in the soul.

Taking these together, it seems clear that Epicurus regards the chief good as absence of pain both physical and mental; in *Principal Doctrine 3* this is said to be what defines or limits the magnitude of pleasure. It is the difference between drinking a glass of water to dispel the pain of thirst and drinking a glass of expensive red wine to experience the pleasure of its taste and the effect of the alcohol. It is clear therefore that he regards katastematic pleasure as superior to kinetic in terms of what we should be aspiring to; it is *that* sort of motion in the soul particles that we should cultivate, not the sort that requires external stimuli, and it is that sort of pleasure that the gods enjoy. It is towards achieving this state that we study philosophy—to eliminate the disturbing fears engendered by ignorance about the nature of the organism that we are and the world in which we live. It is towards achieving this state that we withdraw from the pursuit of wealth and power and live in communities of likeminded individuals, bonding together in friendship as the only sane way of coping with the limitations imposed by nature on our existence. It is towards achieving this state that we study the works of the Master and his disciples, reinforcing their precepts by discussing them among ourselves and making them ours, calling on the world to share them with us, as Diogenes of Oenoanda did by inscribing his understanding of the Epicurean enlightenment in the public places of his city. To quote another of Epicurus' maxims: 'Friendship dances around the world announcing to all of us that we must wake up to blessedness' (*Vatican Sayings* 52); compare too the conclusion to the *Letter to Menoecus*: 'Practise these and the related precepts day and night, by yourself and with a like-minded friend, and you will never be disturbed either when awake or in sleep, and you will live as a god among men.' Consider too *Vatican Sayings* 78: 'The high-minded person concerns him/herself most of all with wisdom and friendship; of these, the one is a mortal good, the other immortal.' To live in friendship is again to live a life most like that of the gods: wisdom is something that dies with the person who possesses it, but friendship is truly godlike. Can atoms make you happy? Well, that's what your soul-particles are made from, and it is in proper regulation of them that happiness consists. Forget what they said about making something of yourself before you die; that's what motivated characters like Achilles in the *Iliad*, hardly a paradigm of the stable and happy individual. Remember instead that other overriding Epicurean maxim: λαθὲ βίωσας, 'Live unknown'. This is *your* life, *your* happiness; so why spend it in frustration at pursuing an unrealisable ideal of excellence? To say you will live like a god is in no way to imply that you are the modern equivalent of

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Homer's 'godlike' heroes; rather that your spiritual state will be as close to that of the gods and their perfect *ataraxia* as it is possible for a human to attain:

Two kinds of happiness may be conceived: the highest one is that associated with the gods and does not admit augmentation; the other admits both addition and subtraction of pleasures.

(Diogenes Laertius 10.121, concluding a list of Epicurean maxims)

The gods in their blessed existence do not have to strive to attain happiness; we do, and the import of this particular passage is that we need to get the balance right. The gods exist as ideals for us to aspire to; it is up to us to determine the way to get there, to get our soul-particles into a configuration that is both pleasurable and sustainable.

So where does this leave our earthquake victim? It is all very well to talk about absence of bodily pain as being an ideal—obviously that is something that we all want—but the very nature of human existence means that this is not something we can hope to sustain for the whole of our lives, particularly when we are approaching old age. Lucretius evidently felt this difficulty acutely when he concluded his great Epicurean poem *On the Nature of Things* with that agonising and gut-wrenching description of the plague that struck Athens in 430 BCE.²⁵ We may cheer ourselves with the knowledge that death is nothing to us as we ritualistically chant the *tetrapharmakos* while we tend our cabbages, but if pain *qua* pain is always an evil, is there not something to be feared in the process of dying which can be a long-drawn-out and exceedingly painful process? For Epicurus' advice on this we turn to *Principal Doctrine 4*:

Pain does not last continuously in the flesh; acute pain is present for the least amount of time, and that which simply exceeds what is pleasurable in the flesh does not last more than a few days. Chronically painful conditions admit an amount of the pleasurable that in fact exceeds the painful.

Reduced to its simplest terms this seems to be claiming that the duration of pain is determined by its intensity; the more acute, the less long-lasting, the less acute, the more long-lasting, but by that same token the more endurable. The fact that this is demonstrably false gave Epicurus' detractors yet another ground to poke fun at his views. But to my mind what Epicurus is getting at is that acute pain is either the symptom of a disease or injury that is going to kill you, or it will pass, whether naturally or as a result of medical intervention; it will then subside into pain that is easier to cope with. The key lies in the last sentence, which adumbrates the employment of pain management techniques; in Epicurean terms, to engineer a situation where feelings of pleasure outweigh the feelings of pain. Epicurus' own death is a case in point. On the last day of his life he wrote to a friend:

This is what I have to say to you as I experience a day that is both blessed and the last one of my life. Urinary blockage and intestinal sufferings that could not be surpassed in their intensity are constantly with me. But ranged against all of these is the joy (*χαῖρον*) in my soul at the memory of the conversations you and I have had.

(Epicurus, *Letter to Idomeneus*, quoted at Diogenes Laertius 10.22)

25 Lucr. *DRN* 6.1138-1286, on which see Penwill (1996).

χαῖρον, from the verb χαίρω, ‘rejoice’, is etymologically connected to the noun χαρά, ‘joy’, identified earlier as a kinetic rather than katastematic pleasure. This of course is the situation where kinetic pleasure can be useful, to restore spiritual equilibrium against the disturbance engendered by physical pain. The fact that it has become so acute suggests to Epicurus that he will not survive the day, yet having spent his life investigating the true nature of pleasure he has equipped himself to deal with a level of pain that the ordinary person would find intolerable. This I think can be linked to another *dictum* attributed to Epicurus that many have found puzzling; according to Diogenes (10.118), Epicurus held both that the wise man would be happy even when being tortured and that when he is being tortured the wise man will nonetheless scream and moan. In his words to Idomeneus Epicurus shows how acutely aware he is of the intensity of his pain (‘sufferings that could not be surpassed’) yet at the same time is able to manage his spiritual state by focusing on an intensely pleasurable memory. To pretend that pain is not there is simply self-delusion; of course it is, so we scream. But at the same time we continue to manage the configuration of our souls so that the pain does not affect our underlying condition of happiness. It is the ability to do this that shows the extent to which we have learned to cope with the conditions under which we are required to live.

So can atoms make us happy? If happiness is a function of the way in which we manage the materials of which we are composed, whether we call this process configuring the motions of soul-particles or adjusting the chemistry of the brain, then the answer has to be yes. In fact, there’s nothing else that can. Happiness *is* atoms, both as our key to understanding the truth about life and death and as the basic constituent of our souls. So tune out of the rat-race and tune in to the true rhythm of that life of which you are a part and start to feel the joy:

γεγόναμεν ἅπαξ, δις δὲ οὐκ ἔστι γενέσθαι· δεῖ δὲ τὸν αἰῶνα μηκέτι εἶναι· σὺ δὲ οὐκ ὦν τῆς αὔριον κύριος ἀναβάλλῃ τὸ χαῖρον· ὁ δὲ βίος μελλησμῶ παραπόλλυται καὶ εἷς ἕκαστος ἡμῶν ἀσχολούμενος ἀποθνήσκει.

(Epicurus *Vatican Sayings* 14)

We are born only once, and it is not possible to be born a second time; and we must spend eternity in no longer being. But you, who are not even master of tomorrow, still keep putting off your joy. Life is lost in procrastination and each one of us perishes through being just too preoccupied.

La Trobe University

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