

‘And bright was the flame of their friendship’ (Empedocles B130): humans, animals, justice, and friendship, in Lucretius and Empedocles

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ABSTRACT: This paper argues that Lucretius exploits a significant doctrinal overlap between his two most important influences, Empedocles and Epicurus, in his account of the domestication of animals. Like Empedocles (although for different reasons), the Epicureans were vegetarians; like him, they regarded friendship as the basis for society. Empedocles argued that in the golden age there existed a naturally occurring state of friendship between humans and animals. Although Epicurus and his followers disagreed with this theory, there are Epicurean sources that strongly suggest that they themselves thought of the first societies as being founded on friendship pacts made between both humans and animals.

In this paper I investigate the background to the ‘Empedoclean fingerprint’ that David Sedley discovered in Lucretius’ account of the survival of the fittest animal species under domestication in book five of *De rerum natura*.¹ I argue that Lucretius exploits a significant doctrinal overlap between his two most important influences, Empedocles and Epicurus, when he translates some of Empedocles’ lines on the original relationship between humans and animals in his account of the domestication of animals. Like Empedocles, the Epicureans were vegetarians (although for reasons quite different from Empedocles’), and like him they also regarded friendship as the basis for society. Empedocles argued that in the golden age there existed a naturally occurring state of friendship between humans and animals, and although Epicurus and his followers disagreed with this theory and targeted it because it was used as authority by their rivals the Stoics for their theory of *oikeiôsis*, there are Epicurean sources that strongly suggest that they themselves thought of the first societies as being founded on friendship pacts made between both humans and animals.

Part 1: Empedocles

1.1 Empedocles’ journey as a daimôn

My concern here is to establish Empedocles’ view of the relationship between humans and animals, and the reasons why we should not kill them, sacrifice them, or eat them, and why we should be friends with them. First I shall have to outline my view of what Empedocles’ own status is in this world among humans and animals, beginning with his account of his fall from a state of grace in the company of the immortal gods in B115:

¹ I am grateful to David Sedley and Malcolm Heath for their helpful comments and criticisms of this paper. They should not of course be held responsible for any of my mistakes.

GORDON CAMPBELL, 'AND BRIGHT WAS THE FLAME OF THEIR FRIENDSHIP'

There is an oracle of necessity, ratified long ago by gods, eternal and sealed by broad oaths, that whenever one in error, from fear, (defiles) his own limbs, having by his error made false the oath he swore—daimôns to whom life long-lasting is apportioned—he wanders from the blessed ones for thirty-thousand seasons, being born throughout the time as all kinds of mortal forms, exchanging one hard way of life for another. For the force of air pursues him into the sea, and sea spits him out onto earth's surface, earth casts him into the rays of blazing sun, and sun into the eddies of air; one takes him from another, and all abhor him. I too am one of these, an exile from the gods and a wanderer, having put my trust in raving Strife.

In B115, perhaps set near the beginning of his poem the *Physics*,² Empedocles says that he is one of a group of creatures that he calls daimôns. They live in the company of the immortal gods until they commit a crime. Their punishment is prophesied by an 'oracle of necessity', and this is ratified democratically by the gods and sealed by broad oaths.³ Thus the daimôn makes false an oath that *he* has sworn, and in punishment for his crime he is hurled from the company of the blessed for 'thirty-thousand seasons', and into the elemental masses that correspond on the macroscopic scale to the four Empedoclean elements that comprise the fundamental stuff of this world: earth, air, fire, and water. He then is born 'as all kinds of mortal forms, exchanging one hard way of life for another'. His punishment is to be incarnated,⁴ and then repeatedly re-incarnated into different forms. It seems that the daimôns would not be in this world or involved with it at all were it not for their crime; their default residence is in the company of the blessed.

The daimôn's arrival in the world is certainly unwelcome to the elemental masses and they seek to repel him and hand him on from one to another like a hot potato. Trusting in Strife is the cause of the daimôn's downfall; Strife, along with Love, is one of the two forces that dominate the cosmos in turn, Love uniting all the elements into one, and then Strife taking over and separating them out again. As Empedocles puts it in B26:

They prevail in turn as the cycle moves round, and decrease into each other and increase in appointed succession. For these are the only real things, and as they run through one another they become men and other kinds of animals, at one time coming into one order through Love, at another again being borne away from each other by Strife's hatred, until they come together in the whole and are subdued. So, insofar as one is accustomed to arise from many, and many are produced from one as it is again being divided, to this extent they are born and have no abiding life; but insofar as they never cease their continual exchange, so far they are forever unaltered in the cycle.

² Plutarch *On Exile* 607c quotes it as 'at the beginning of Empedocles' philosophy'. In this paper I accept the arguments of Simon Trépanier 2004, and others, that Empedocles wrote only one poem, with the alternative titles *Physics*, and *Purifications*, from which all our extant fragments come.

³ On the prophecy see Osborne 2005, 285-6, and for the oath the gods swear see Garani 2007.

⁴ Cf. B126: 'clothing (?the daimôn) in an unfamiliar garment of flesh.' B118 seems to report Empedocles' feelings on his arrival as a daimôn in this world: 'I wept and wailed on seeing an unfamiliar place.'

Love and Strife alternate in their influence 'in appointed succession' and produce an eternal cosmic cycle in which the elements are drawn together under the influence of Love and then pulled apart again by Strife. We learn in B30 that Love and Strife are also bound by a 'broad oath' in their succession, just as is the oracle of necessity that predicts the daimôn's downfall,⁵ and from B17 we see that both Love and Strife have creative roles (B17.1-13):

A twofold tale I shall tell: at one time it grew so as to be alone out of many, at another time in turn it grew apart to be many from one. Double is the generation of mortal beings, and double their passing away; for the one generation is brought to birth and destroyed by the coming together of all things, the other was nurtured and flew apart as they grew asunder again. And these things never cease their continuous change, at one time, through Love, all coming together into one, at another time, in turn, being each carried apart by the hatred of Strife. So insofar as many are formed out of one as it grows apart again, to that extent they become and have no stable life; but insofar as they never cease their continuous interchange, to that extent they always are, changeless, in a cycle.

So a cycle of creation, destruction, creation and destruction is established. Love creates a world and all the creatures in it and then destroys it, and then Strife takes over, creates a world, also containing creatures, and again destroys that.⁶ Despite the peaceful democratic, or perhaps oligarchic, nature of the agreement between Love and Strife to rule the cosmos in turn,⁷ they are not morally neutral forces. As we see in B115 the elemental masses 'abhor' the daimôn and reject him, presumably because he has put his 'trust in raving Strife' and is thus polluted by Strife's miasma. Indeed, throughout the fragments Strife is regularly characterized negatively as 'raving Strife' (νεῖκει μαινομένῳ, 115.14), 'baneful Strife' (νεῖκει λυγρῷ, 109.3), and 'pernicious Strife' (νεῖκος οὐλόμενον, 17.19), and Love in contrast is always presented in positive terms.

Moral and political judgements and concerns then are built right into the fundamental fabric of the cosmos, and it is pervaded by oath-making from the macrocosmic to the microscopic scale; the two cosmic forces make agreements to rule alternately and seal these with oaths, the gods vote on the ratification of the 'oracle of necessity', the daimôn swears an oath not to kill or eat meat, and, further, even the elements are able to feel emotions in response to the influence of the cosmic forces. In B22 we are told in fact that under the influence of Love the elements 'are more ready to combine', and 'are made similar', and 'feel mutual affection'. Under the influence of Strife on the other hand, they are 'most hostile, quite inexperienced in union, and grieving deeply at their generation in Strife'. So, we are presented with a cosmos full of intelligent actors who make political

⁵ B30: 'But when Strife had grown great within its limbs and leapt up to his prerogatives, as the time was being accomplished which had been established for each in turn by a broad oath' (trans. Inwood).

⁶ Here I deliberately leave the details of the cosmic cycle vague. See further Sedley 2005, who argues plausibly that Love and Strife are both responsible for creations of creatures within the same phase of the cycle, and that the alternation from Strife to Love and vice versa does not always result in the destruction of the world.

⁷ See Garani 2007, 191 who notes that they seem to agree as equals rather than being subject to any higher authority. Vlastos (1947) 1970, 65 speaks of an 'equalitarian rotation of office'.

agreements, swear oaths to bind them, and feel affection and want to combine, or feel hostility and grief and want to remain separate. It has long been established that Presocratic philosophers commonly project their own political ideas onto the cosmos and so provide an intelligible framework of comprehension for obscure and vast processes,⁸ but for Empedocles his political imagery is not merely metaphorical; he really does attribute thought and emotion to his elements, and intelligent purpose to his cosmic forces.⁹ The cosmos is presented as a polis in which the individual citizens have some say in their world's affairs, but in other ways are subject to the influence of outside forces.

In one of the fragments of the Strasbourg papyrus we now learn what the crime that the daimôn committed was (Strasbourg fr. d):

... to fall apart from one another and then to meet their fate, as they [sc. the limbs], much against their will, are made to rot away by bitter necessity. And whereas now we have Love and Goodwill, the Harpies with the lots of death will be with us (hereafter). Alas that merciless day did not destroy me sooner, before I devised with my claws terrible deeds for the sake of food. But now in this storm I have in vain drenched my cheeks: for we are approaching the very deep Whirl, I perceive, and, though they do not wish it, countless griefs will be present to men in their minds—but we shall make you enter once more into the former account: when an indistinguishable flame occurred ... bringing upwards a mixture of much woe ... beings capable of generation were engendered ... even now daylight beholds their remains ... I went to the uttermost place ... with a scream and a cry ... attaining the meadow of Doom ... again the earth around. (trans. Martin and Primavesi).

Here Empedocles exhibits a characteristic mixture of ethical and physical topics. We begin in physics with the limbs of creatures being made to rot away by bitter necessity, then we move on to the ethical consequences of the increasing influence of Strife in the world: at the moment we have Love and Goodwill (here capitalized to show that they are present in both their human and divine forms), but in the future as Strife gains control death and misery await us. Empedocles himself, as an incarnated daimôn, will seemingly be subject to the ills brought by Strife, and this prompts him to bewail his fate: 'Alas that merciless day did not destroy me sooner, before I devised with my claws terrible deeds for the sake of food.' Thus we learn then that the crime he committed in B115 was of slaughter and meat-eating.¹⁰ Killing and eating an animal has caused the incarnation of the daimôn.

So, Empedocles' daimôn is in this world as an exile having committed a terrible crime. His punishment as he says in B115 is to be reincarnated 'in all

⁸ Vlastos (1947) 1970.

⁹ Cf. B110.10: 'for know that all things have a share of intelligence and thought.' On the purposive actions of the cosmic forces, especially on the part of Love, see esp. B86, B84, B23 with Sedley 2007, 52-62.

¹⁰ The 'claws' I take to be metaphorical (i.e. it was as if he had the claws of a beast rather than the hands of a human when he committed the crime) rather than real claws that he had in an earlier incarnation as a carnivorous animal. This of course leaves unsolved the problem of how one in the company of the blessed could possibly commit such a deed. See Picot 2007.

kinds of mortal forms'. He tells us that his soul has inhabited the different orders of nature, the two types of human, birds, fish and even plants (B117):

For before now I have been at some time boy and girl, bush, bird, and a mute fish in the sea.¹¹

Since Empedocles was the same soul in each creature as the one who now remembers his former incarnations it makes no sense to speak of human souls and animal souls as separate things, and humans and animals differ only in their physical make up.¹² This series of reincarnations seemingly is a punishment, and the *daimôn*'s task is to achieve purification of his sin until he can work his way up the scale of nature and recover his former divine status. This is the state Empedocles claims he has now reached for himself (B112.1-6):¹³

My friends who live in the town of tawny Acragas, on the city's citadel, who care for good deeds, havens of kindness for strangers, men ignorant of misfortune, greetings! I tell you I travel up and down as an immortal god, mortal no longer, honoured by all as it seems, crowned with ribbons and fresh garlands.

Empedocles has reached the end of his punishment and will become a god rather than be reincarnated again (B146):

And at the end they [*daimôns*] come among men on earth as prophets, minstrels, physicians, and leaders, and from these they arise as gods, highest in honour.

He is one of those who will rejoin the company of the immortals (B147):

With other immortals they share hearth and table, having no part in human sorrows, unwearied.

Therefore, Empedocles has served the sentence imposed upon him for meat-eating and oath-breaking and has completed his thirty-thousand season-long series of reincarnations, during which his soul has been purified of its sin and is now ready to rejoin the company of the immortals. Now in his final incarnation his task is to teach others the nature of the universe, the nature of the soul, and the correct way of living so that they too may be able to purify themselves.¹⁴ In particular Empedocles has to convince his audience that animal sacrifice and meat-eating, far from being pious acts, are indeed acts of murder and cannibalism. Unaware that the soul transmigrates between human and animal bodies people commit

¹¹ Empedocles remembers his past forms, cf. Pythagoras in B129; Ennius remembers being a peacock, *Ann. fr.* 9 Skutsch.

¹² Cf. Osborne 2007, 45-6. As Osborne notes (52 n.18) the inclusion of plants is problematic. One possibility could be that not all plants can contain souls only e.g. laurels and beans (cf. B127), cf. the prohibitions against killing laurels (B140) and beans (B141).

¹³ I take it that B112 and B115 both describe the *daimôn*'s present circumstances, but view them from different perspectives. Thus in B115 he is an 'exile' in that he would not be in the world at all if he had not committed his crime, and, at the same time he is an 'immortal god' in B112 in that he has reached the end of his cycle of reincarnations (and hence of his exile) and will rejoin the company of the immortals when his soul next departs his mortal form. Cf. Sedley 2005, 363 n.48.

¹⁴ I am assuming for the sake of simplicity that all humans are, or may be, perfectible. The evidence is contradictory. Sedley 2005, 346-7 argues that only some humans are *daimôns* and were born under the rule of Love, while others, born under the rule of Strife cannot reincarnate and are doomed.

hideous crimes in the name of religion. Empedocles chooses a narrative of a father unwittingly sacrificing his own son (B137):¹⁵

The father will lift up his dear son in a changed form, and, great fool, as he prays he will slay him, and those who take part in the sacrifice bring the victim as he pleads. But the father, deaf to his cries, slays him in his house and prepares an evil feast. In the same way son seizes father, and children their mother, and having bereaved them of life devour the flesh of those they love.

Empedocles chooses the most shocking possible scenario: a father, out of ignorance, when sacrificing an animal actually murders his own son, and even worse eats him!¹⁶ The resemblance to the sacrifice of Iphigenia in Aeschylus' *Agamemnon* 218-47 has often been noticed.¹⁷ Both sacrifices are dreadful perversions of piety but it is a moot point which is the more horrific: Agamemnon closing his ears to his daughter's pleas, or the father in Empedocles' version being unable to understand his son's voice. In any case Empedocles' story is the more shocking in the cannibalism of the eating of the sacrificed victim. For Empedocles sacrifice is murder and meat-eating is cannibalism. This is a radical theological stance given that animal sacrifice was considered fundamental to the practice of Greek religion, and also has serious political implications.¹⁸ Empedocles berates his audience directly (B136):

Will you not cease from the din of slaughter? Do you not see that you are devouring one another because of your careless way of thinking?

The cure for slaughter and 'devouring one another' is to learn to think more carefully and to understand that birth and death are not really the beginning and

¹⁵ Cf. the story of Pythagoras in Xenophanes fr. 7: 'Once he was present when a puppy was being beaten, they say, and took pity and spoke this word: Stop! Do not strike it, for it is the soul of a man who is dear. I recognized it when I heard it screaming.' See Osborne 2007, 46-50. I disagree, however, with her reading that Pythagoras intervenes only because the puppy contains the soul of a friend of his rather than simply because it contains a human soul: Pythagoras would have objected to any puppy being beaten but employs a virtual rhetorical tricolon in order to persuade the man—'Do not beat the puppy, it is really a human. What is more, it is a friend of mine. And I even recognized his voice.' The sort of person who would beat a puppy would not easily be persuaded to stop simply by being told that he is really beating a human, after all.

¹⁶ Osborne 2007, 54 argues that it is *only* because of the possibility that we will be killing and eating one of our family that killing and eating animals is wrong according to Empedocles, but the reminiscence of the sacrifice of Iphigeneia in B137 strongly suggests that, while animal sacrifice and meat-eating are always acts of evil, he has chosen the most effective didactic format: when we sacrifice an animal we unknowingly put ourselves in the position that Agamemnon deliberately chose when he sacrificed his daughter to the gods.

¹⁷ Cf. Wright 1995 *ad loc.*

¹⁸ See Sorabji 1993, 170-94, who cites Damascius fr. 216 Zintzen (89B Athanassiadi) = *Suda* Σ139 Adler, reporting the refusal by a pupil of Proclus of doctor's orders to eat unsacrificed meat when Christians had made sacrificed meat scarce. Sorabji 1993, 171: 'Evidently, you could not say that you shared in traditional religion, but did not eat meat, or ate unsacrificed meat.' Refusal to eat sacrificed meat was a test of Christianity (Tertullian *ad Scap.* 4.1-4; *Apologeticus* 28-9; Cyprian *Ep.* 20; Eusebius *Martyrs of Palestine*; Julian *Against the Galileans*). Aristotle says (*Politics* 3.9, 1280b37) that communal sacrifices constitute a large part of what makes a polis different from just a group of people; cf. 6.8, 1322b26-31, where he says that public sacrifice is one of the offices essential to a city state.

ending of life but simply stages the soul passes through.¹⁹ As a counter-example to B137 Empedocles describes a golden age under the rule of Love when there was no animal sacrifice.

1.2 Empedocles on the golden age

In order to aid his argument of non-violence and vegetarianism, Empedocles appeals to a golden age of friendship that once existed between humans and animals in an earlier age of our world.²⁰ Originally, before the rise of Strife and the consequent fall of the *daimōns*, under the rule of Love (called by Empedocles variously *Στοργή*, *Φιλότης*, *Κύπρις*, or *Ἀφροδίτη*) people were vegetarians and had no animal sacrifice. Their gods also reflected their peacefulness and purity (B128):²¹

They did not have Ares as god or *Kydoimos*, nor king Zeus nor Kronos nor Poseidon, but queen *Kypris*. Her they propitiated with holy images and painted animal figures, with perfumes of subtle fragrance and offerings of distilled myrrh and sweet-smelling frankincense, and pouring on the earth libations of golden honey. Their altar was not drenched by the (?unspeakable) slaughter of bulls, but this was the greatest defilement among men—to bereave of life and eat noble limbs.

It seems either that gods other than Aphrodite did not exist, and were created or summoned into being by the increase of Strife in the world, or perhaps that they existed but that their worship was optional. In any case, the choice of the worship of *Kypris* reflects the inner harmony of the peaceful people of the golden age. As Empedocles explains in B17.23: 'because of her [Aphrodite] they think friendly thoughts (*φίλα*) and work together.' Present-day animal sacrifice is thus to be seen as a perversion of the original that has occurred because of the growing influence of Strife in our world and of the gods associated with him such as Ares, *Kydoimos*, Zeus, Poseidon and, surprisingly, even Kronos, who is more normally king during the golden age; images and painted animal figures were the original and proper sacrifice rather than real animals, and instead of blood they offered perfumes and honey.²² What is now seen as piety was then seen as the grossest

¹⁹ Cf. B8: 'Here is another point: of all mortal things no one has birth, or any end in pernicious death, but there is only mixing, and separating of what has been mixed, and to these men give the name "birth"'; B9: 'When they have been mixed in the form of a man and come to the air, or in the form of the race of wild animals, or of plants, or of birds, then people say this is to be born, and when they separate they call this again ill-fated death; these terms are not right, but I follow the custom and use them myself'; B15: 'A man who is wise in such matters would not surmise in his mind that men are, and good and ill befall them, for as long as they live, for a lifetime as they call it, and that before they were formed, and after they have disintegrated, they do not exist at all'; B11: 'Fools, for their meditations are not far-reaching thoughts, men who suppose that what formerly did not exist comes into existence, or that something dies and is completely destroyed.'

²⁰ Sedley 2005, 333-4.

²¹ As is the way with such accounts of a golden age and its description by negation we are meant to understand that the original state is the natural, and thus the fundamentally correct, state of being. See Davies 1987.

²² There is a story that probably derives from this fragment, that Empedocles sacrificed an ox made of honey and barley meal at Olympia (Athenaeus 1.5, 3e; Diogenes Laertius 8.53).

impiety. One other particular feature of this golden age is that there was friendship between humans and animals (B130):

All creatures, both animals and birds, were tame and gentle to men, and bright was the flame of their friendship (φιλοφροσύνη).

Indeed, as I say above, in Empedocles' theory of the soul, human souls are in fact animal souls, and humans and animals differ only in their bodily make up. So it is not surprising to find such an original state of harmony between all people under the rule of Love, who induced friendly thoughts in all the people of the golden age, including the 'people' that we would call 'animals'. This feature of the golden age is quite familiar from various ancient sources, including Aesop, according to whom all creatures could speak in the golden age, conversed with humans, and held assemblies in the woods.²³ There are several variants on the theme: in Crates' fifth-century comedy *Beasts* (fr. 19 K.-A.), set in the age of Kronos, animals try to persuade humans not to eat them but to be vegetarians instead, and the influential Peripatetic philosopher Dicaearchus describes a rationalised form of golden age in which humans were originally vegetarians, and meat-eating and murder began at the same time.²⁴ According to Aratus' *Phaenomena* 96-136 the maiden Justice gradually retreated from humanity into the mountains as the people declined from the golden race, to the silver, bronze and iron races, and finally left the earth forever when men slaughtered and ate her oxen. Ovid's golden age in book one of the *Metamorphoses* is pointedly pacifist and vegetarian, and in Pythagoras' speech in book fifteen he says that in the golden age humans and animals lived in safety from one another and there was no meat-eating.²⁵ The Christian writer Lactantius, quoting approvingly from Virgil's *Eclogue* 4 and from what he says is Virgil's source, the *Sibylline Oracles*, prophesies a future golden age after the day of judgement, and criticises the other ancient poets for placing the golden age in the past (*Div. Inst.* 7.24.8-9):

Wild beasts will not feed on blood in this period, nor birds on prey; everything will instead be peaceful and quiet. Lions and calves will stand together at the stall, wolf will not seize lamb, dog will not hunt, hawk and eagle will do no harm, and children will play with snakes. This will be the time for all those things to happen that the poets claimed for the golden age when Saturn was king. The mistake about them arises from the fact that prophets foretelling the future keep putting plenty of things forward like that, delivering it as if it had taken place. Visions were put before their eyes by the divine spirit, and they saw things in their sight as if in process and completion.

²³ Babrius, *Fab. Aes. Preambl.* 1-13. See Gera 2003, 57-67; Osborne 2007, 232-3. Cf. *Jubilees* 3:27-30: 'On the day that Adam went out of the garden he offered frankincense, galbanum and spice, as a food offering of soothing odour; and so he did every day in the morning, at sunrise from the day he covered his shame. And on that day the mouths of all the wild animals and the cattle and the birds, and of everything that walks or moves, were shut, so that they could no longer speak (for up till then they had all spoken with one another in a common tongue). And he sent out of the Garden of Eden all creatures that were in it; and they were scattered to the places naturally suited to them, according to their kinds and species. And Adam alone, as distinct from all the wild animals and cattle, did he cause to cover his shame' (trans. Sparks 1984, quoted from Osborne 2007, 24).

²⁴ Fr. 49 Wehrli (56A Mirhady) = Porph. *De Abst.* 4.2.1.

²⁵ *Met.* 1.101-18, 15.96-102.

So Empedocles' golden age is part of a long and influential tradition of thought in which an original state of friendship between humans and animals is appealed to as a model or example of how society should or could be in the present day. Empedocles' version is distinctive because, according to him, people are really animals, or rather, animals are really people. The Empedoclean cosmos is characterized by its social networks: everything from the gods to the elements is intelligent and feels emotions, and the world is held together by oaths, agreements and friendship, and is torn apart by strife, disagreement and hatred. The original friendship between all creatures is the correct state of being.

Part 2: Lucretius and Epicurus

In this section I shall argue that although Epicurus' contractarian theory of justice excludes animals from human justice, in his account of the origins of society he described the early humans trying to establish friendly relations with all creatures including animals, and thus behaving *as if* it were possible to make contracts with animals. This influenced Lucretius in his account of the origins of society and the original domestication of animals, where he presents domestication as semi-contractual and providing mutual benefits for humans and animals. Lucretius, though, also sees this in terms of Empedoclean ideas of the original friendship between humans and animals, translating or imitating Empedocles' lines on the survival of animals under domestication, thus silently making a rapprochement between Empedocles and Epicurus on a point of disagreement between them.

2.1. Hermarchus and Epicurus on humans, animals and justice

Epicurus held a utilitarian and contractarian theory of justice, according to which justice was not anything absolute but lay simply in the mutual usefulness derived from individuals making contracts between one another (*KD* 33):

Justice was never anything *per se*, but a contract, regularly arising at some place or other in people's dealings with one another, over not harming and not being harmed.

Therefore the ability to make such contracts is of crucial importance, and a state of justice can only exist between those who are able to make contracts (*KD* 32):

Nothing is just or unjust in relation to those creatures (ὄσα τῶν ζῴων) which were unable to make contracts over not harming one another and not being harmed; so too with all peoples which were unable or unwilling to make contracts over not harming and not being harmed.

Therefore, it would seem that animals, and even some humans, are excluded from justice, and considerations of justice do not enter into our conduct towards them.²⁶ The position *vis-à-vis* animals is made even clearer by Hermarchus, the head of the Epicurean school after Epicurus, who is reported by Porphyry (*De Abst.* 1.7.1-1.12.7 = fr. 34 Longo-Auricchio) to have argued that since animals do not possess

²⁶ David Sedley suggests to me that Epicurus' phrase ὄσα τῶν ζῴων need not necessarily include all non-humans, and could except domesticated animals.

reason, justice cannot be extended to them, and therefore they can be killed if they are a danger to humans (*De Abst.* 1.12):

If, then, it were possible to make a kind of contract with the other animals over their not killing us or being killed by us indiscriminately, it would have been good to push justice up to this point; for it would have extended our security. But since it was not possible to associate creatures that lack reason with law, it was not possible to use such an instrument as the means of providing for utility in our security from other living beings any more than from lifeless things. All that can assure our security is the option, that we now have, of killing them.

This attitude to animals is clearly entirely different from that of Empedocles, for whom animals were friends and, therefore, on that basis must be treated well. The Epicureans exclude any notion of friendship or of sentiment from their idea of the proper treatment of animals. Indeed they attacked Empedocles' theory of an original state of friendship between humans and animals. Hermarchus' account of the origins of justice, reported by Porphyry, comes from his *Against Empedocles*.²⁷ Dirk Obbink (1988, 432) reconstructs the background to Hermarchus' targeting of Empedocles on this matter:

In our most extensive passage [sc. of Hermarchus' *Against Empedocles*], Empedocles came under attack for his view that a fellowship between mankind and irrational animals exists which makes it unjust for us to slay them; Hermarchus argues in turn that no animal which lacks λογισμός has any share in justice (Porph. *De Abst.* 1.12.5-6; cf. Epic. *Kur. Dox.* 32). Much more recently than Empedocles, however, Theophrastus had defended the former position, in the form of the Peripatetic concept of οἰκειότης or affinity between men and beasts, citing Empedocles in support of his view and quoting actual passages from his poem(s) (Theophr. *De Piet.* ap. Porph. *De Abst.* 2.21.2-3 and 2.27.7 = Emped. 31 B 128 D.-K. ...). In a related account (*Adv. Math.* 9.126-31) Sextus Empiricus, quoting from the same passage of Empedocles (*Adv. Math.* 9.128-9 = Emped. 31 B 137 D.-K. ...; cf. *Adv. Math.* 9.119 = Emped. 31 B 136 D.-K. ...), directs criticism of the same position (attributed to 'Pythagoras and Empedocles and the rest of the Italians') rather pointedly at the *Stoics* ..., which suggests that support for Stoic theories of natural and personal affinity (οἰκείωσις) may have drawn on the authority of Empedocles.

Hermarchus' account of the origins of justice, then, was prompted by a desire to attack the Stoic theory of *oikeiōsis*, and he attacked Empedocles since he was the Stoics' ultimate authority.²⁸

If this is an accurate reconstruction of the history of Epicurean polemics against Empedocles it is particularly surprising to find that Lucretius exhibits Empedoclean influence when he describes the prehistoric relationship between humans and animals. In his account of the origin of species (5.837-54) he argues that the earth brought forth all sorts of creatures without any plan or design. Most of these were ill-formed, blind, without hands, or feet, or with their limbs stuck

²⁷ Obbink 1988; cf. Diogenes Laertius 10.25 'twenty-two books on Empedocles'.

²⁸ Here I deliberately avoid the question of whether Hermarchus is making a concession to the Stoic theory in the reference to *oikeiōsis* near the beginning of Porphyry's report (1.7), or whether Porphyry is using Stoic terminology to interpret Hermarchus' account. See Vander Waerdt 1988. This question does not affect the attribution to Hermarchus' *Against Empedocles*.

together, and so died out. Others died out in a version of the survival of the fittest in a struggle for life (5.855-77). Those species we see today survived because they possessed special attributes such as speed (deer), strength (lions) or cunning (foxes). Others, such as dogs, horses, sheep and oxen, survived because they were domesticated by early humans and so were protected from wild animal attacks and also provided with plentiful pasture. It is in this passage that David Sedley has discovered Empedoclean influence.²⁹

2.2. Lucretius and David Sedley's 'Empedoclean fingerprint test'

As David Sedley has noted, Lucretius is fond of compound adjectives but cautious about pairing them within same line or within two lines. As he says, however, 'the pairing of compound adjectives is, on the other hand, a ubiquitous feature of Empedocles' poetry'.³⁰ In his book of 1998, *Lucretius and the Transformation of Greek Wisdom*, he argued plausibly that where Lucretius has pairs of compound adjectives this indicates Empedoclean influence.³¹ This was proven to be correct by the publication of the Strasbourg fragments of Empedocles where we find lines, or variants of lines, that Lucretius has translated (Strasbourg fr. a(ii) 26-8):

τοῦτο μὲν [ἄν] θηρῶν ὀριπλάγκτων ἀγρότερ' εἶδη²,
 τοῦτο δ' ἄν' ἀ[νθρώ]πων δίδυμον φύμα, [τοῦτο δ' ἄν' ἀγρῶν²]
 ῥιζοφόρων γέννημα καὶ ἀμπελοβά[μονα βότρυν²]

This (you will see) among the wild species of *mountain-wandering* beasts; this among the *twin progeny of mankind*; this among the offspring of the *root-bearing* fields and the *vine-climbing* grape-cluster.

Compare Lucretius (2.1081-3):

invenies sic *montivagum* genus esse ferarum,
 sic *hominum* *geminam prolem*, sic denique mutas
squamigerum pecudes et corpora cuncta volantum.

Thus you will find the *mountain-wandering* race of beasts to be, thus *the twin progeny of mankind*, thus too the silent flocks of *scale-bearers* and all the bodies of those that fly ...

This makes it very likely that Lucretius in 5.864-77 when describing the survival of certain species under domestication translates or imitates Empedocles' lines on the topic (5.864-77):

at *levisomna* canum fido cum pectore corda,
 et genus omne quod est veterino semine partum,

²⁹ Lucretius' whole theory of the origin of species has long been seen as influenced by Empedocles' theory (cf. B57, B59, B60, and B61). Furley 1970, sees 837-44 as a translation of B57 (see further Campbell 2000, and Campbell 2003 on 5.837-54). Sedley 1998, 19-20 and 2003, 2-5 sees less direct influence and argues that rather than acknowledging Empedocles, Lucretius carefully distances his theory from that of Empedocles.

³⁰ Sedley 2003, 6.

³¹ Sedley 1998, 24-5. See also Gemelli Marciano 1988, ch. 2. Cf. *DRN* 1.3, 2.1081-3, 5.789, 5.864-7.

lanigeraeque simul pecudes et bucera saecla,
 omnia sunt hominum tutelae tradita, Memmi,
 nam cupide fugere feras pacemque secuta
 sunt et larga suo sine pabula parta labore,
 quae damus utilitatis eorum praemia causa. 870
 at quis nil horum tribuit natura, nec ipsa
 sponte sua possent ut vivere nec dare nobis
 utilitatem aliquam quare pateremur eorum
 praesidio nostro pasci genus esseque tutum,
 scilicet haec aliis praedae lucroque iacebant 875
 indupedita suis fatalibus omnia vinclis,
 donec ad interitum genus id natura redegit.

But as for the light-sleeping (*levisomna*) minds of dogs, with their faithful heart, and every kind born of the seed of beasts of burden, and along with them the wool-bearing (*lanigerae*) flocks and the horned tribes, these have all been entrusted to the protection of the human race, Memmius, because they eagerly fled the wild beasts and sought peace and the plentiful fodder, born by no labour of theirs, which we give them as a reward on account of their usefulness. But those whom nature granted none of these attributes, so they could neither live by their own resources nor give to us any usefulness by which we might allow their species to graze under our protection and be safe, clearly these lay exposed as prey and profit to others, all hobbled by the bonds of fate, until nature brought that species to extinction.

The pairing of the compounds *levisomna* and *lanigerae* strongly suggests Empedoclean influence, and it is known from Aristotle that Empedocles also discussed the survival of the fittest, and therefore the topic is a shared one. Simplicius, commenting on Aristotle's *Physics*, notes the resemblance between the Empedoclean and Epicurean doctrines on the survival of the fittest.³²

David Sedley also finds it significant that Lucretius does not mention the provision of meat as a reason for the survival of any animals, especially of pigs since, unlike sheep, cattle and horses etc., they were domesticated entirely for the sake of their meat. He suggests this also shows Empedoclean influence.³³ It is

³² Aristotle *Physics* 2.8, 198b16-32. Cf. Simplicius *in Phys.*, CAG vol. 9, p.371.33-372.11: 'Thus Empedocles says that under the rule of love parts of animals first came into being at random—heads, hands, feet and so on—and then came into combination: "There sprang up ox progeny, man-limbed, and the reverse" (obviously meaning "man progeny ox-limbed", i.e. combinations of ox and man). And those which combined in a way which enabled them to preserve themselves became animals, and survived, because they fulfilled each other's needs—the teeth cutting and grinding the food, the stomach digesting it, the liver converting it into blood. And the human head, by combining with the human body, brings about the preservation of the whole, but by combining with the ox's body fails to cohere with it and perishes. For those which did not combine on proper principles perished. And things still happen the same way nowadays. This doctrine seems to be shared by all those early natural philosophers who make material necessity the cause of things' becoming, and, among later philosophers, by the Epicureans' (trans. Long and Sedley). See Sedley 2003, 6-10. Cf. 11-12: 'Thus it proves to be on this topic, the survival of the fittest, that Lucretius in Book 5 finds in Empedocles' physical poem one of the *praeclara reperta* on which he has already complimented his illustrious forerunner in Book 1. And it is a meeting of minds which he apparently celebrates by imitating, perhaps even translating, the lines in which Empedocles himself portrayed the fitness of the fittest and their consequent capacity to survive.'

³³ Sedley 2003, 11, n. 26, and 2005, 360, n. 29.

worth comparing a Stoic account of the providential usefulness of animals for humans (from Chrysippus) in Cicero *ND* 2.158-61 (note that the Stoics, although they use Empedocles as an authority for *oikeiōsis* disagree with him completely about meat-eating):

- **Sheep** are useful for providing wool (cf. *DRN* 5.866 *lanigerae*; the Stoic spokesman Balbus also says they would not have survived without human care so the context is very similar to Lucretius').
- **Dogs** are useful for their faithful guarding (*fida custodia*; cf. *DRN* 5.864 *levisomna canum fido cum pectore corda*), affection for their owner, hostility to strangers, and hunting abilities (not mentioned by Lucretius).
- **Oxen** for draft animals/load-bearing (cf. *DRN* 5.865-6).
- **Mules and asses** for load-bearing (cf. *DRN* 5.865).
- **Pigs** exist only to provide meat for humans and this is why nature has made it the most prolific of animals (Chrysippus is cited as saying the pig's soul exists only like salt to keep the meat fresh until we can eat it! Cf. Porphyry *De Abst.* 3.20).
- Then comes a selection of useful **wild animals**—**fish** and **birds** for being so delicious; **birds** also for augury; **beasts of the forest** for hunting both for food and to give us practice in warfare.
- And finally **elephants** exist to be trained so that they can help us and also for medicines made from their bodies (ivory perhaps?).

This Stoic list of domestic animals is strikingly similar to Lucretius' and the biggest difference is the lack of pigs in Lucretius' list or any mention of the usefulness of animals, either wild or tame, for providing meat. I suggest that Lucretius has followed Empedocles' list quite closely, while Chrysippus' Stoic list, despite the influence of Empedocles' account of naturally occurring friendship on the Stoic idea of *oikeiōsis*, has added animals and their meat-giving function at the end, and has included wild animals, missing from Lucretius' list, since their function is to be hunted and to provide meat.

2.3 Epicurean vegetarianism

Lucretius would also have good Epicurean authority for accepting from Empedocles a vegetarian account of the domestication of animals, since Epicurus himself advocated a vegetarian diet, advising against eating meat on the grounds that it was an unnecessary pleasure and also harmful to health (Porphyry *De Abst.* 1.51.6-52.1 = Us. fr. 464 part):

As for eating meat, it relieves neither any of nature's stress nor a desire whose non-satisfaction would give rise to pain. It involves a violent gratification which is swiftly combined with its opposite. What it contributes to is not life's maintenance but variation of pleasures, just like sex or the drinking of exotic wines, all of which our nature is quite capable of doing without ... Furthermore, meat is not conducive to health, but rather an impediment to it.

Compare his criticism of fish as an unnecessary luxury (*Ep. Men.* 131-2):

By pleasure we mean the absence of pain in the body and of trouble in the soul. It is not an unbroken succession of drinking bouts and of revelry, nor enjoying boys and women, nor fish and other delicacies of a luxurious table, which produce a pleasant life; it is sober reasoning ...

Porphyry also reports that Epicureans in general ate a vegetarian diet (*De Abst.* 1.48.3 (= Us. fr. 466 part)):

For most of the Epicureans, starting with their leader, appear to be satisfied with barley-bread and fruit, and they have filled their treatises with arguments that nature needs little and that its requirements are met by simple available food.³⁴

But of particular interest in this context is *De Abst.* 1.53.1, where Porphyry reports his Epicurean source arguing that if everyone thought correctly there would be no need of those, including swineherds, whose job it is to provide meat:

For if all men conceived rightly, there would be no need of fowlers, or hunters, or fishermen, or swineherds. But animals governing themselves, and having no guardian and ruler, would quickly perish, and be destroyed by others, who would attack them and diminish their multitude, as is found to be the case with myriads of animals on which men do not feed.

This passage has so far been quite wrongly left out of collections of Epicurean fragments, and if accepted as genuinely Epicurean provides stronger evidence than before for Epicurean vegetarianism:³⁵ if everyone had correct opinions about pleasures and bodily health they would not eat meat and so there would be no need of those professions which serve only to provide meat. Swineherds are included along with hunters and fowlers because pigs are kept only for their meat and so they would be redundant. We have therefore an explicit Epicurean rejection of pigs as necessary domesticated animals. They are included indeed in a list of wild animals which people catch only for their meat. This would provide good authority for Lucretius' exclusion of pigs from his list of the animals that were

³⁴ Jerome also says that Epicurus promoted a vegetarian diet, but he cites a different reason for the rejection of meat-eating—the cares and pains attendant upon sourcing and preparation of meat and other such delicacies, and presumably upon finding the money to buy them, outweigh any pleasures their consumption might bring (*Against Jovinian* 2.11): 'And, strange to say, Epicurus, the defender of pleasure, in all his books speaks of nothing but vegetables and fruits; and he says that we ought to live on cheap food because the preparation of sumptuous banquets of flesh involves great care and suffering, and greater pains attend the search for such delicacies than pleasures the consumption of them.' Cf. also Horace on his vegetarian diet: *Sat.* 1.6.111-5; *Odes* 1.31.15-16. Seneca reports the inscription over the gates of the 'Garden', Epicurus' school at Athens (*Letters* 21.10-11): 'Stranger, here you will do well to tarry; here our highest good is pleasure. The caretaker of that abode, a kindly host, will be ready for you; he will welcome you with bread, and serve you water also in abundance, with these words: "Have you not been well entertained? This garden does not whet your appetite; but quenches it. Nor does it make you more thirsty with every drink; it slakes the thirst by a natural cure, a cure that demands no fee. This is the pleasure in which I have grown old."'

³⁵ A Platonic intertext wrongly led Usener to exclude 1.53.1 from his fragments of Epicurus. Cf. Plato *Republic* 2.373c where, in response to Glaucon's criticism of the simple vegetarian diet of Socrates' first city as 'fodder for a city of pigs', Socrates lists hunters, fishermen and swineherds among those who will provide the luxuries in the new city. In fact the passage is well integrated into the rest of the Epicurean material reported by Porphyry.

first domesticated because of their usefulness: domesticated pigs are unnecessary today since they only provide meat, the eating of which is a natural but unnecessary pleasure and is harmful to health; the early humans domesticated dogs, sheep, horses, and cattle because these animals were useful to them in ways other than providing meat. Pigs were therefore not among the first animals to be domesticated but were domesticated only later on when people began to be infected with irrational desires, perhaps during the rise of cities.³⁶

After the reference to swineherds in 1.53.1 Porphyry adds as a seeming *non sequitur* that animals without human protection would be attacked and naturally culled by attacks from wild animals just as happens to those animals we do not eat. This seems remarkably similar to Lucretius' account of the protection granted to animals by humans under domestication, and the extinction of those species that were not domesticated. Porphyry differs in speaking about the present, or future, rather than prehistory and also in saying that those species not protected by us would be culled rather than driven extinct as in Lucretius. I suggest that the link between the redundancy of swineherds and the depredation that animals would suffer without human protection that Porphyry leaves out is as follows: 'And it is not the case, as some argue that if we stopped eating animals completely they would become so numerous as to be a nuisance to us:³⁷ on the contrary, animals governing themselves, and having no guardian and ruler, would quickly perish and be destroyed by others.'

So, Lucretius has Epicurean, as well as Empedoclean, authority for not including pigs in his list of the animals first to be domesticated, or meat provision as part of the usefulness of any animal for humans: meat is not useful but is an unnecessary luxury that does not remove pain but increases it, and is also harmful to our health. Among domesticated animals pigs are singled out by Porphyry's Epicurean source as those that there would be no need of if everyone had correct opinions. Porphyry also shows that the Epicureans were quite aware that domestication had protected certain species from the depredations of wild animals, and this closely matches Lucretius' account of the preservation of animals by human protection under domestication. These constitute significant areas of agreement between Epicurus and Empedocles, between Lucretius' main philosophical and poetic influences. Lucretius, perhaps recognizing what he sees as Empedoclean influence upon Epicurus, by translating or imitating Empedocles' lines on the survival of animals species silently effects a rapprochement between his two heroes and smoothes over the arguments between them and between their followers on the question of naturally occurring friendship.

³⁶ Cf. *De re rustica* 2.1.4-5, where Varro agrees with Dicaearchus (fr. 48 Wehrli = 55 Mirhady) that sheep were the first animals to be domesticated because they are naturally placid and tractable, and because they offer so many benefits, including milk, cheese, wool, and skins. Dicaearchus similarly locates the beginnings of meat-eating in a later stage.

³⁷ Clarke 2000, 142 n.187 considers that the argument on the dangers of the proliferation of animals is Porphyry's own and is directed against Hermarchus' similar justification for killing even harmless animals: if they were not culled they would become harmful (*De Abst.* 1.11.3-5).

Part 3: Lucretius on the domestication of humans and animals

Lucretius' account of the original domestication of animals is unusual because it focuses not only on the benefits that *humans* receive from animals but also upon the benefits that *animals* receive from humans in return for being domesticated: on the *mutual* benefits that both humans and animals enjoy under domestication (5.867-70):

omnia sunt hominum tutelae tradita, Memmi;
nam cupide fugere feras pacemque secuta
sunt et larga suo sine pabula parta labore,
quae damus utilitatis eorum praemia causa.

... these have all been entrusted to the protection of humans, Memmius; for they eagerly fled the wild beasts and sought the peace and the abundant fodder produced by no labour of theirs which we give them as a reward for their usefulness.

So, as has been noticed before,³⁸ Lucretius presents domestication as a sort of contract being made with the animals. They 'eagerly' flee the wild beasts, and 'seek' the fodder we give them. C.J. Glacken comments: 'Lucretius implies that there is self-conscious and purposive action by animals who weigh alternatives and that domestication is semi-contractual on the part of the animals.'³⁹ This is unexpected because it would seem to go directly against both Hermarchus' and Epicurus' clear statements that it is not possible to make contracts with animals (cf. *KD* 33 and Porphyry, *De Abst.* 1.12 above). Similarly, Glacken's description of the process as only 'semi-contractual' seems to reflect the problem of making any sort of real and binding contract with a creature that cannot understand the *notion of* a contract. However, Lucretius is quite clearly presenting some sort of a contractual arrangement. The agreement is necessarily less formal than those made between humans and is of a somewhat different kind; rather than strictly a non-aggression pact, it is more nearly a contract for the exchange of goods and services, and while humans achieve protection from external attacks by banding together for mutual safety, humans themselves act as guards for domesticated animals against wild animal attacks.⁴⁰ And while Lucretius does not actually say

³⁸ Cf. Sorabji 1993, 161-3.

³⁹ Glacken 1973, 139.

⁴⁰ Larrère and Larrère 2000, quote *DRN* 5.864-70 as a forerunner of their theory that animal domestication does actually comprise an informal contract between humans and animals. Cf. p.55: 'We depart from Mary Midgley's anthropological thesis (Midgley 1984): "All human communities have involved animals". It has been so since the Neolithic period; social relationships have been established between humans and animals. Domestication was only possible because human beings knew how to exploit the sociability of certain animal species.' Larrère and Larrère also quote Pierre Dupont de Nemours 1792, 84-5 (who I would guess is influenced by Lucretius): 'the woolly beast of our flocks is stupid and cowardly ... but man and dog join forces to guard it. The multiplication of its species, as with cattle, has benefited considerably from the apparently usurious contract, by which man sells them abundant pasture and assured protection. The contract, which is of great benefit to man, is likewise of benefit to the species he has conquered.' Larrère and Larrère answer the problem of how a contract can be made with a creature that cannot understand the idea of a contract, thus (2000, 56): 'This idea of a contract could appear ludicrous at first blush. For there to be a contract it is necessary for both parties to join in reasoning and discussion. Certainly, it is difficult to imagine an animal agreeing to a contract with a man.'

that a pact (*foedus*, συνθήκη) was made, he does carefully illustrate the reciprocity of the process: we give animals fodder and security from predators as *praemia* in return for their *utilitas*. *praemia* is part of the terminology of Roman contract law, and *utilitas* reflects the Epicurean technical vocabulary of justice and friendship.⁴¹ This contractual relationship is also unexpected because of the history of Epicurean polemics against Empedocles, Theophrastus and the Stoics, outlined above, in which the Epicureans take the other philosophers to task over their notions of a naturally occurring friendship between humans and animals in the past. It would seem that Lucretius, if he were orthodox, should be particularly careful to avoid suggesting that friendship pacts between human and animals were instrumental in his account of the survival of the fittest, in order to distinguish his theory clearly from that of Empedocles and the later philosophers who relied upon Empedocles as authority for their theory of a naturally occurring fellow-feeling between humans as the basis of society.

Lucretius' presentation of the domestication of animals also has certain similarities to his account of the formation of the first societies; these too were founded on Epicurean friendship pacts, which were made between neighbours as they softened, both physically and psychologically, under the effects of fire, indoor life, marriage, and child-rearing (5.1011-27):

Inde casas postquam ac pellis ignemque pararunt, et mulier coniuncta viro concessit in unum conubium, prolemque ex se videre creatam, tum genus humanum primum mollescere coepit. ignis enim curavit ut alsia corpora frigus	1015
non ita iam possent caeli sub tegmine ferre, et Venus imminuit viris puerique parentum blanditiis facile ingenium fregere superbum. tunc et amicitiam coeperunt iungere aventes finitimi inter se nec laedere nec violari,	1020
et pueros commendarunt muliebrequae saeculum, vocibus et gestu cum balbe significarent imbecillorum esse aequum misererier omnis. nec tamen omnimodis poterat concordia gigni, sed bona magnaue pars servabat foedera caste;	1025

However, remember that the hypothesis of a social contract between members of a political society does not at all mean that such a contract has ever existed. The social contract is supposed to have been, but in reality never has been, set down in the appropriate form, still less signed. It involves an implicit contract, for which the hypothesis relates to what the members of human societies can communicate by language. In the same way, the idea of a contract of domestication rests on the hypothesis of communication between men and their domesticated animals.' As evidence that such a contract does in reality exist they adduce the fact that the contract can also be broken, by animals returning to the wild and becoming feral, and especially by people who abandon their domestic animals into the wild to fend for themselves. We feel that this abandonment is wrong because we assume that a contract exists under which the human party has a duty to protect and nurture the animal party.

⁴¹ OLD s.v. *praemium* 2b; TLL 10.2.718.25ff.; for *utilitas*, cf. KD 31: 'The justice of nature is a pledge of usefulness (σύμβολον τοῦ συμφέροντος) regarding not harming one another or being harmed'; KD 38 'what is useful (τὸ συμφέρον) for mutual association'.

GORDON CAMPBELL, 'AND BRIGHT WAS THE FLAME OF THEIR FRIENDSHIP'

aut genus humanum iam tum foret omne peremptum
nec potuisset adhuc perducere saecula propago.

Then, after they had got huts and skins and fire for themselves, and woman joined to man had retired into a single marriage, and they saw children created from them, then it was that the human race first began to soften. For fire saw to it that their now tender bodies were unable to bear the cold under the open sky as they had before, and Venus lessened their violence, and children with their winning ways easily broke the arrogant nature of their parents. And then eager neighbours began to form friendship pacts with one another neither to harm nor be harmed, and they entrusted children and the female race to each other's care, signing with cries and halting gestures that it is right for all to pity the weak. It was not possible however for complete concord to arise, but a great part kept the pacts with integrity, or already at that time the human race would have been completely destroyed, nor would their offspring have been able to prolong the race to this day.

The pacts made between humans are, unsurprisingly, more formal and detailed than those made between humans and animals; the substance of the human pacts is indeed described in a translation of Epicurus' own words 'neither to harm nor be harmed' (*KD* 33), and they even result in a claim that seems to go beyond what Epicurus himself would allow, stating that it is 'right for all to pity the weak'.⁴² These differences aside however, the picture is quite similar, and we see men entrusting (*commendarunt*, 1021) women and children to each other's care just as the animals were entrusted (*commendata*, 861, cf. *tradita*, 867) to human care. Although the pacts were made between the men in order to protect third parties (the women and children), the animals, we must assume, were 'entrusted' in the sense that they entrusted *themselves* to human care.⁴³ Further, the neighbours are keen for the pacts (*aventes*, 1019) just as the animals eagerly (*cupide*, 868) sought safety and fodder. We are not told of the changes that animals have undergone by being tamed and domesticated, but the description of the softening undergone by the early humans in response to their environment is clearly a form of taming and domestication.⁴⁴ It is also specifically stated that had the early humans not formed these pacts and kept them (for the most part) faithfully, the human race would have gone extinct (1024-7). Just so we are told that domestication saved some animal species from extinction (860-1, cf. 871-77).

⁴² See Campbell 2002.

⁴³ Sorabji 1993, 163, compares Jan Narveson's theory (1977) that a contract made between adults to protect each other's children could be extended to include the protection of each other's livestock as well. Lucretius, however, presents the pact being made directly between humans and animals.

⁴⁴ Cf. the comparison between the first humans and bristly wild boars at 5.970 (*saetigerisque pares subus*) which suggests that humans have become less hairy since their 'domestication' just as domestic pigs have lost most of their bristles. Cf. also the zoomorphism of the description of domestication of crops in 5.1368-9: they are 'wild fruits' that are 'tamed' and 'indulged' and 'sweetly cultivated' as if they were animals being tamed: *fructusque feros mansuescere ... | indulgendo blandeque colendo*. Cf. the intertexts in Virgil *Georgics* 2.49-62, where grafted trees lose their 'woodland spirit' (*silvestrem animum*, 51) and learn to practise arts (*artes*, 53) as if they were Lucretius' first humans leaving their woodland haunts and settling down.

GORDON CAMPBELL, 'AND BRIGHT WAS THE FLAME OF THEIR FRIENDSHIP'

The parallel is strongly underlined by the verbal correspondences between the two passages (855-6):

multaque *tum* interiisse animantum *saecla* necessest
nec potuisse propagando procudere prolem.

And (1026-7):

aut genus humanum *iam tum* foret omne peremptum,
nec potuisset adhuc perducere saecla propago.

Further, although Lucretius does not explain why the first societies were formed, it is clear from Hermarchus that protection from wild beasts was the reason (Porphyry *De Abst.* 1.10):⁴⁵

In determining what we should do and not do, the first legislators had good reason for not setting any ban on the destruction of other creatures. For in regard to these utility results from the opposite action: man would not have been able to survive without taking steps to defend himself against animals by living a social life.

So, according to the Epicureans the formation of the first societies and the domestication of animals came about for the same purpose, that of protection from wild beasts, both were a sort of domestication and taming, and both were based on Epicurus' utilitarian theory of justice and friendship. As I say above, these parallels are unexpected because both Hermarchus and Epicurus clearly say that animals lack the reason to make pacts. However, there is evidence elsewhere that Epicurus may have presented a similar account of the domestication of animals to Lucretius', perhaps in book twelve of *On Nature*. In *KD* 39 Epicurus appears also to be speaking of the first societies and the most efficient means of gaining security (*KD* 39):⁴⁶

He who knew best how to how to meet fear of external foes (ὁ τὰ ἑαυτοῦ πρὸς τὸ μὴ θαρροῦν ἀπὸ τῶν ἕξωθεν ἄριστα συστησάμενος) made into one family all the creatures he could (τὰ μὲν δυνατὰ ὁμόφυλα κατεσκευάσατο); and those he could not, he at any rate did not treat as aliens (τὰ δὲ μὴ δυνατὰ οὐκ ἀλλόφυλά γε); and where he found even this impossible, he avoided all encounters, and, as far as was expedient, kept them at a distance.

Epicurus here seems to take a less theoretical approach to animals and justice than in *KD* 32. He describes a prehistoric proto-sage who hits upon the best method of achieving security from outside threats. He attempts to make all creatures part of his social group and seems to be successful with some and unsuccessful with others. Therefore he assumes that it is, or may be, possible to make friendship pacts of some kind, at least, with any creature, and is partly successful in doing so.

⁴⁵ This is also the cause of the first human gatherings given by Plato *Protagoras* 322b; Diodorus Siculus 1.8; Cicero in Lactantius *Div. Inst.* 6.10.13.

⁴⁶ See Blickman 1989, 166-70 on the links between this passage and Lucretius' account of the formation of the first societies. David Sedley advises me the following caveats: (1) the ἀπό in ἀπὸ τῶν ἕξωθεν could be translated as referring not to the *object* 'from' which the proto-sage seeks protection but to the *source* of the security he seeks, i.e. 'security provided by external people', rather than 'fear of external foes', and (2) the historic tenses in *KD* 39 could be read as gnomic (cf. *KD* 6-7, 20) rather than as referring to prehistory.

He is not an Epicurean, however, even though he has hit upon the fundamental mechanism of Epicurus' theory of justice, and his actions are thus pre-theoretical. That is, he has not yet formed any theory of the way the world works and which he attempts to apply, but has, perhaps, a basic grasp, or *prolēpsis*, of justice—that it consists of 'what is useful for mutual association' (*KD* 38)—and acts upon that.⁴⁷ Even when he has failed to make a creature part of his group he does not treat it as an alien—which I take to mean he kept making friendly overtures to that creature—and when even this failed he did not try and kill the creature, as we might have expected from Hermarchus and from *KD* 32, but simply kept away from it so that it would do him no harm. This is quite a different approach from that of Hermarchus who says that our only defence against wild animals is to kill them.⁴⁸ There is no mention in *KD* 39 of which creatures the prehistoric sage was successful in including in his group, but from everyday experience it would include the sort of animals Lucretius mentions—dogs, cattle, horses and sheep—the ones necessary for farming and guarding flocks against predators.⁴⁹

Further, the aggressive attitude exhibited by Hermarchus and by Epicurus in *KD* 32 to the dangers of wild animals seems perhaps a less 'Epicurean' approach to dealing with external dangers than we might expect; after all, they were notorious for their doctrine of withdrawal and disengagement from the harmful disturbances of the polis, and we should expect this to be reflected in their attitude to dangers more generally. Certainly in the proem to book five of *DRN* Lucretius contrasts the achievements of his master Epicurus and the hero Hercules. Epicurus was a hero who drove out, not monstrous beasts, but evils from the soul, and, what is more, unlike Hercules he achieved his conquests 'by words, not arms' (*dictis, non armis*, 5.50). Therefore Epicurus is much more worthy of deification than Hercules is. Anyway, what harm could the creatures killed by Hercules do to us nowadays (*DRN* 5.36-42)?

cetera de genere hoc quae sunt portenta perempta,
 si non uicta forent, quid tandem uiua nocerent?
 nil, ut opinor: ita ad satiatem terra ferarum
 nunc etiam scatit et trepido terrore repleta est
 per nemora ac montes magnos siluasque profundas;
 quae loca uitandi plerumque est nostra potestas.

And all the other monsters of this kind that were slain [by Hercules], if they had not been vanquished, what harm pray could they have done alive? None, as I think, seeing how the earth even now teems with swarms of wild beasts, how full it is of unnerving terror through forests and great mountains and deep woods, which places it is mostly in our power to avoid.

⁴⁷ Here I follow J.M. Armstrong's analysis of the motivation of Lucretius' pact-makers in *DRN* 5.1011-27 (Armstrong 1997, 328).

⁴⁸ Hermarchus does distinguish between harmful and useful animals but has quite a different focus (we may kill both harmful and useful animals since even the useful ones would be a danger to us if they were allowed to proliferate to excess).

⁴⁹ Cf. n.36 above, citing Varro's agreement with Dicaearchus that sheep were the first animals to be domesticated.

Battling wild beasts is the epic Herculean reaction to them; the Epicurean, in contrast, just keeps out of their way.⁵⁰

So, there is an Epicurean tradition of the relationship between early humans and animals different from that found in Hermarchus and in *KD* 32, one which is much closer to Lucretius' account of a semi-contractual agreement between humans and animals. And this approach to animals—trying to befriend them and acting as though they were capable of making friendship pacts, and avoiding them rather than killing them if they proved incapable of being befriended or tamed—is a more generally Epicurean-seeming approach than that in Hermarchus and *KD* 32.

Conclusion: Lucretius and Empedocles on humans, animals and friendship

As David Sedley has said, in Empedocles' account of the origin of species Lucretius finds one of the *praeclara reperta* that he praises him for in book one of *DRN*. I suggest that we can take this further and argue that Lucretius recognizes in Empedocles' account of the original friendship between humans and animals the prototype of Epicurus' description of the formation of the first societies: unlike Empedocles' vision of an original golden age of friendship between humans and animals—all of them 'the people' of the golden age—, in the Epicurean account the first societies were formed under the stimulus of attacks by wild animals, but just like in Empedocles, their formation was by a process of making friends with any and all creatures that could be made part of the community. Both Epicurus and Empedocles saw friendship as the basis for society, and both saw animals as part of the first societies. Their notions of what constituted that friendship were, of course, completely different: Empedocles saw a naturally occurring friendship between humans and animals because they both shared the same souls, and Epicurus saw friendship as based on mutual utility and mutual non-aggression. Hence the long history of Epicurean polemics against Empedocles discussed above. Lucretius, as shown by the Empedoclean finger-print test, imitates or translates some of Empedocles' lines when he describes the first domestication of animals. Thus, he makes a silent rapprochement between Empedocles and Epicurus and heals a doctrinal rift between his two most important influences. In this area, Empedocles' doctrine is easily assimilated into Lucretius' Epicureanism as they share so much common ground, especially on animals, meat-eating and vegetarianism.

Bibliography

Armstrong, J.M., 'Epicurean justice', *Phronesis* 42 (1997), 324-34.

Blickman, D.R., 'Lucretius, Epicurus and prehistory', *HSCP* 92 (1989), 157-91.

⁵⁰ Cf. the ironic epic language of 6.32, where Epicurus is described as soothing sick souls by teaching 'from which gate to sally out against' evils (*quibus e portis occurri cuique deceret*).

- Campbell, G.L., 'Zoogony and evolution in *Timaeus*, the Presocratics, Lucretius and Darwin', in M.R. Wright (ed.), *Reason and Necessity: Essays on Plato's Timaeus* (London/Swansea 2000), 145-80.
- 'Lucretius 5.1011-27: the origins of justice and the Prisoner's Dilemma', *LICS* 1.3 (2002), 1-12.
- *Lucretius on Creation and Evolution: a Commentary on De rerum natura 5.772-1104* (Oxford 2003).
- Clarke, G., *Porphyry, On Abstinence from Killing Animals* (London 2000).
- Davies, M., 'Description by negation: history of a thought-pattern in ancient accounts of blissful life', *Prometheus* 13 (1987), 265-84.
- Dupont de Nemours, Pierre-Samuel, *Philosophie de l'Univers* (Paris 1792).
- Furley, D.J., 'Variations on themes from Empedocles in Lucretius' Proem', *BICS* 17 (1970), 55-64.
- Garani, M., 'Cosmological oaths in Empedocles and Lucretius', in A.H. Sommerstein and J. Fletcher (eds.), *Horkos* (Nottingham 2007), 189-202, and 264-7.
- *Empedocles Redivivus: Poetry and Analogy in Lucretius* (London 2008).
- Gemelli Marciano, L., *Le metamorfosi della tradizione: mutamenti de significato e neologismi nel Peri physeos di Empedocle* (Bari 1988).
- Gera, D.L., *Ancient Greek Ideas on Speech, Language and Civilization* (Oxford 2003).
- Glacken, C.J., *Traces on the Rhodian Shore: Nature and Culture in Western Thought From Ancient Times to the End of the Eighteenth Century* (Berkeley 1973).
- Larrère, C. and Larrère. R., 'Animal rearing as a contract?', *Journal of Agricultural and Environmental Ethics* 12 (2000), 51-8.
- Midgley, M., *Animals and Why They Matter* (Athens GA 1984).
- Narveson, J., 'Animal rights and human obligations', *Canadian Journal of Philosophy* 7 (1977), 161-78.
- Obbink, D., 'Hermarchus, *Against Empedocles*', *CQ* 38 (1988), 428-35.
- Osborne, C., 'Sin and moral responsibility in Empedocles' Cosmic Cycle', in Pierris (ed.), (2005), 283-308.
- *Dumb Beasts and Dead Philosophers: Humanity and the Humane in Ancient Philosophy and Literature* (Oxford 2007).
- Picot, J.-C., 'Empedocles fragment 115.3: can one of the Blessed pollute his limbs with blood?', in S. Stern-Gillet and K. Corrigan (eds.), *Reading Ancient Texts: Essays in Honour of Denis O'Brien* (Leiden 2007), 41-56.
- Pierris, A. (ed.), *The Empedoclean Cosmos: Structure, Process and the Question of Cyclicity* (Patras 2005).

GORDON CAMPBELL, 'AND BRIGHT WAS THE FLAME OF THEIR FRIENDSHIP'

- Sedley, D.N., *Lucretius and the Transformation of Greek Wisdom* (Cambridge 1998).
- ‘Lucretius and the New Empedocles’, *LICS* 2.4 (2003).
- ‘Empedocles’ life cycles’, in Pierris (ed.), (2005), 331-71.
- *Creationism and Its Critics in Antiquity* (Berkeley 2007).
- Skutsch, O., ‘Notes on metempsychosis’, *CP* 54 (1959), 114-16.
- Sorabji, R., *Animal Minds and Human Morals* (London 1993).
- Sparks, H.D.F. (ed.), *The Apocryphal Old Testament* (Oxford 1984).
- Trépanier, S., *Empedocles: An Interpretation* (New York/London 2004).
- Vander Waerdt, P.A., ‘The justice of the Epicurean Wise Man’, *CQ* 37 (1987), 402-22.
- ‘Hermarchus and the Epicurean Genealogy of Morals’ *TAPA* 118 (1988), 87-106.
- Vlastos, G., ‘Equality and justice in early Greek cosmologies’, *CP* 42 (1947), 156-78 = R.E. Allen and D.J. Furley (eds.), *Studies in Presocratic Philosophy* (London 1970), 59-91.
- Wright, M.R., *Empedocles the Extant Fragments* (ed.2, London 1995).