EPICURUS AND LUCRETIUS ON THE ORIGINS OF LANGUAGE

The purpose of this study is to re-examine the Epicurean texts (notably Epicurus, *Epistula ad Herodotum* 75–6 and Lucretius, *De Rerum Natura* 5.1028–90) on the emergence of language, and to make new proposals about what the questions raised by the Epicurean account are and how the main source texts fit together.[1]

I begin with *Epistula ad Herodotum* 75–6, setting some new observations in the context of Brunschwig's interpretation of the passage, which I broadly accept. The section on language begins with a general statement about the way in which human progress occurs: two successive phases are distinguished, one in which nature 'receives instruction and is constrained' by things in the world around us, and one characterised by reason ($\lambda o\gamma\iota\sigma\mu\acute{o}s$), which is said to 'make more accurate what has been provided by nature, adding new discoveries'.[2]

The section narrowly concerned with language then runs (75–6):

T1   (1) Ὅθεν καὶ τὰ ὀνόματα ἐξ ἀρχῆς μὴ θέσει γενέσθαι, ἀλλ' αὐτὰς τὰς φύσεις τῶν ἀνθρώπων καθ' ἕκαστα ἔθνη ἴδια πασχούσας πάθη καὶ ἴδια λαμβανούσας φαντάσματα ἰδίως τὸν ἀέρα ἐκπέμπειν στελλόμενον ὑφ' ἑκάστων τῶν παθῶν καὶ τῶν φαντασμάτων, ὡς ἄν ποτε καὶ ἡ παρὰ τοὺς τόπους τῶν ἐθνῶν διαφορὰ ᾖ· (2) ὕστερον δὲ κοινῶς καθ' ἕκαστα ἔθνη τὰ ἴδια τεθῆναι πρὸς τὸ τὰς δηλώσεις ἧττον ἀμφιβόλους γενέσθαι ἀλλήλαις [codd.; ἀλλήλοις Meibom] καὶ συντομωτέρως [thus B; συντομωτέρας P Co] δηλουμένας· (3) τινὰ δὲ καὶ οὐ συνορώμενα πράγματα εἰσφέροντας τοὺς συνειδότας παρεγγυῆσαί τινας φθόγγους· (4) τοὺς <μὲν οὖν> ἀναγκασθέντας ἀναφωνῆσαι, τοὺς δὲ τῷ λογισμῷ ἑλομένους κατὰ τὴν πλείστην αἰτίαν οὕτως ἑρμηνεῦσαι.

(1) Thus names too did not originally come into being by imposition, but men's own natures underwent peculiar feelings and received peculiar impressions which varied from race to race, and they exhaled breath in a peculiar way according to each of the feelings and impressions, according also to the racial difference from place to place. (2) Later, particular coinings were made by agreement within the individual races, so as to make the designations less ambiguous and more concisely expressed. (3) Also, the men who shared knowledge introduced certain unseen entities, and brought words for them into usage. (4) <Hence some> men made utterance under compulsion, and others chose words rationally, and it is thus, as far as the principal cause is concerned, that they expressed themselves. (transl. Long and Sedley, adjusted)

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[1] I shall refer repeatedly to the following articles: J. Brunschwig, 'Epicurus and the problem of private language', in his *Papers in Hellenistic Philosophy* (Cambridge, 1994), 21–38; C. Atherton, 'Lucretius on what language is not', in D. Frede, B. Inwood (edd.), *Language and Learning – Philosophy of Language in the Hellenistic Age* (Cambridge, 2005), 101–38; A. Verlinsky, 'Epicurus and his predecessors on the origin of language', in the same collection, 56–100. I have learned much from the incisive studies by Jacques Brunschwig and Catherine Atherton.

[2] Brunschwig (n. 1), at 23 explains: 'From this we may draw the completely unforced conclusion that, in this affair, nature is both an agent and a patient. It receives lessons but it has itself provided them in the first place. When we attempt to explain this paradox, it no longer seems so necessary to choose between human nature and nature in general: if nature is capable of affecting itself in this way, in all likelihood the specific place in which it affects itself is none other than man.'

Section (1) describes the emergence of names ($ὀνόματα$), which at the very least must mean sounds which are articulated and firmly associated with a particular referent.[3] There is no suggestion that there has been any sort of communication, be it in the forms of unarticulated sounds or of gestures, prior to the emergence of names, but this is a very compressed account. Before the Epicurean view is characterised, there is gesturing towards an alternative model of how names might come into being, i.e. by imposition or coining ($θέσις$).[4] This contrasting mode of presentation may lead to an emphasis on differences between the two models and the way in which they cope with the need to explain certain facts about language; hence it might have an influence on how Epicurus talks about these matters. The names correlate with the feelings and impressions humans undergo as the external world impinges upon them, and the impression is created that the emitting of names happens somehow automatically; this looks back to the introductory paragraph summarised above, specifically to the notion of constraint, which objects are said to exercise on nature. The section, in connection with the notion of a name outlined above, thus suggests that humans show articulated vocal responses to their surroundings, with fixed reference, in a mechanical, compulsory fashion (ultimately explicable, at least on one level, in terms of atomistic theory, though this is not made explicit). There is no indication, as Atherton has shown,[5] how or whether they might have sufficient control over these vocalisations to be able to use them at will. Communication, even in the simple case where the communicative act involves merely the reference to a particular object, requires choice of what we want to refer to, and consequently control over our means of reference.[6] In the present case, this would mean choice of what we want to refer to by means of vocalisations.[7] But section (1) may acquire further meaning from its context.

  Section (2) then is concerned with a second phase in the development of language. Humans now agree on modifications to the lexicon which has naturally emerged (hence the use of the verb 'to posit, coin', here as $τεθῆναι$, otherwise associated with the alternative model). No substantial change is made to the names: the removal of ambiguity and improvement of conciseness are the objectives of this revision activity.[8] This suggests that there is no difference in kind between the first and the second phase as far as the use of the expressions generated is concerned.[9] That being so, it is important that the words which are subjected to revision are referred to as 'designations' ($δηλώσεις$),[10] and what they do as 'designating'. This kind of expression could

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  [3] One may think that stronger restrictions on what counts as a name ought to be imposed, e.g. that a name must be intended to designate by the user, but one of the questions raised by this passage is precisely what requirements Epicurus posits for names.

  [4] $θέσει$ is in itself unspecific as to whether imposition of names by an individual or agreement on (not pre-existing) names by a group is meant; cf. G. Arrighetti, *Epicuro – Opere*[2] (Turin, 1973). 521.

  [5] Atherton (n. 1), at 121.

  [6] On the notions of communication and information see the discussion in Atherton (n. 1), 115–18.

  [7] Whether it ought to involve the choice to refer to particular objects *by means of a particular vocalisation* is, however, a separate matter (see below).

  [8] Following Brunschwig (n. 1), 30, n. 16, I read the transmitted $ἀλλήλαις$ rather than Meibom's conjecture $ἀλλήλοις$. The participle $δηλουμένας$, frequently untranslated in published translations, has active force, as is sometimes the case in Epicurus; see H. Usener, *Glossarium Epicureum*, edendum curaverunt M. Gigante et W. Schmid (Rome, 1977), 757–8.

  [9] So Brunschwig (n. 1), at 32 and Atherton (n. 1), at 121.

  [10] Nouns of the formation of $δήλωσις$, i.e. –si-/-ti- abstracts, are almost invariably *nomina actionis*; a translation like 'method of reference', otherwise possible, seems discouraged by the

imply that there is a designating subject, in a position to control the use of names in such a way as to be able to refer to objects at will, and, given that these designations emerged in the first phase, one would assume that designating went on in the first phase already.

The question is whether Epicurus was aware that his task was essentially a twofold one, giving a sense of how names can come into being naturally, and how humans can use them intentionally in relevant ways. If he was not, then he may be helping himself to a conception of language to which he is not entitled; or he may be using the term $\delta\eta\lambda\dot{\omega}\sigma\epsilon\iota\varsigma$ without implying that there is an intentionally designating subject. But if he was, then this passage would not give a misguided or confused account of the emergence of linguistic communication – it would give an *incomplete* account. What is missing is precisely a hint how vocalisations are to be controlled. (It will be central to my argument below that the Epicurean account allows for this kind of incompleteness of presentation, in virtue of being amenable to what one might call compartmentalisation; see below, p. 137.) What is present is an account of how articulated sounds with stable reference come into being, and – possibly – the indication of an awareness that the mechanics of word formation are only part of the story.

Here now is the beginning of the section on language in Lucretius (*De Rerum Natura* 5.1028–40);[11] I give the Loeb translation:

T2
　　　　At uarios linguae sonitus natura subegit
　　　　mittere et utilitas expressit nomina rerum,
　　　　non alia longe ratione atque ipsa uidetur
　　　　protrahere ad gestum pueros infantia linguae,
　　　　cum facit ut digito quae sint praesentia monstrent.
　　　　sentit enim uim quisque suam quod possit abuti.
　　　　cornua nata prius uitulo quam frontibus extent,
　　　　illis iratus petit atque infestus inurget.
　　　　at catuli pantherarum scymnique leonum
　　　　unguibus ac pedibus iam tum morsuque repugnant,
　　　　uix etiam cum sunt dentes unguesque creati.
　　　　alituum porro genus alis omne uidemus
　　　　fidere et a pennis tremulum petere auxiliatum.

But the various sounds of the tongue nature drove them to utter, and convenience moulded the names for things, not far otherwise than very speechlessness is seen to drive children to the use of gesture, when it makes them point with the finger at things that are before them. For each feels to what purpose he is able to use his own powers. Before the budding horns stand out on the calf's forehead, these are what he uses in anger to butt with and pushes viciously; then panthers' kittens and lions' cubs already fight with claws and feet and bite, even when teeth and claws are as yet scarcely grown. Further, we see that all the winged tribes trust to their wings and seek unsteady aid from their pinions.

plural of $\delta\eta\lambda\dot{\omega}\sigma\epsilon\iota\varsigma$, and by the fact that the noun is picked up by $\delta\eta\lambda o\upsilon\mu\dot{\epsilon}\nu\alpha\varsigma$. Thus 'indication' or 'designation' ought to be the correct rendering. The verb $\delta\eta\lambda o\hat{\upsilon}\nu$ means 'to indicate' in the concrete sense of 'to make plain sc. things which are there'; this aspect of the meaning of the word seems to be present in our passage, as is suggested by the opposition with $o\dot{\upsilon}\ \sigma\upsilon\nu o\rho\dot{\omega}\mu\epsilon\nu\alpha$ in section (3).

[11] This passage is preceded by one which deals with the emergence of social values. In it, there are the following lines (5.1019–23): *tunc et amicitiem coeperunt iungere auentes / finitimi inter se nec laedere nec uiolari, / et pueros commendarunt muliebreque saeclum, / uocibus et gestu cum balbe significarent / imbecillorum esse aequum misererier omnis.* Some attempts at explaining Epicurean views on the emergence of language have tried to relate this section to the following one on language proper; see e.g. Verlinsky (n. 1), 86–90. I think the structure of the text strongly discourages this approach (see below, n. 43).

In **T2** the emergence of linguistic ability among human beings is likened to the way in which small children who cannot yet speak point to things around them. We can describe this formally as a (sort of) simile or from the viewpoint of argumentative content as an analogy. It is now a widely accepted observation that similes or analogies in Lucretius are often of the 'multiple correspondence' type.[12] That is, the correspondence between the two halves of the analogy is usually detailed and complex; of course it is not possible to be sure with regard to particular correspondences whether they are the product of design or not, but in any case the correspondences are in the text and can be pointed out and examined. No one has so far done this – in itself fairly mechanical – job for the present passage, which is strange given that it arguably provides a means for controlling ambiguity. In identifying these correspondences we do not yet have to make any interpretative choices; I list obvious correspondences first, less clear-cut ones after that.

exprimere (of names) ~ *protrahere* (of gestures) (two verbs denoting a movement, in opposite directions, intentional or not, used metaphorically or not)
utilitas ~ *infantia* (two abstract nouns as the subjects of the two corresponding verbs)
nomina ~ *gestus* (both words denote items which refer to things in the world; both words feature as the grammatical or logical object of the corresponding verbs just identified)
res (in *nomina rerum*: the things in the world) ~ *praesentia* (the things pointed to)

natura ~ *infantia*
subegit mittere ~ *protrahere*
sonitus ~ *gestus* (both to be clarified later: *sonitus* by the more clearly delineated sounds which are *nomina*, *gestus* by the specific gesture of pointing with the finger)

Some comments on the second set: while *protrahere* answers *exprimere*, it also answers *subegit mittere*, partly because of the semantic opposition of *mittere* and *protrahere*, partly because the first half of the analogy has two cola (*at…mittere* and *et utilitas…rerum*), while the second half has just one. And accordingly, while *infantia* answers *utilitas*, there is also a correspondence with *natura*: 'speechlessness is in the nature of the child' is an insight which does not represent a doctrinal commitment. There is one more thing we can observe on this superficial level: in both halves of the analogy there is an element of progression (which should not, at this stage, be confused with development or chronological sequence): *sonitus*, 'sounds' plain and simple, are picked up by *nomina*, 'names', i.e. more clearly delineated items with referential function; and the general term *gestus* is picked up by the description of a specific gesture, the pointing with a finger. We can thus, still on this entirely formal level, make another observation: given that this progression is present in both halves of the analogy, and that in the second half it is clearly a move from the general to the particular, i.e. the same thing is being referred to on two different levels of description, our normal expectation would be that in the first half of the analogy *sonitus linguae emittere* and *nomina rerum exprimere* are not two distinct and subsequent phases, but rather the same phase, described on two different levels.

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[12] See D. West, 'Virgilian multiple-correspondence similes and their antecedents', *Philologus* 114 (1970), 262–75. I take it that an ancient readership, familiar with the formal conventions of epic poetry and its exegetical tradition especially on similes (see N. Richardson, 'Literary criticism in the exegetical scholia to the *Iliad*: a sketch', *CQ* 30 [1980], 265–87, esp. 276–83; M. Heath, *Unity in Greek Poetics* [Oxford, 1989], 103–23; C. Reitz, *Zur Gleichnistechnik des Apollonios von Rhodos* [Frankfurt, 1996], 3 and *passim*), will have worked out these correspondences carefully.

We can now leave this formal level behind and start interpreting these correspondences, bringing some of the known formal principles of multiple correspondence similes to bear on the text. To begin with, the correspondence of *exprimere* and *protrahere* suggests a sense of *exprimere* which retains some of the original meaning of this word ('to express'), so as to make the correspondence antithetical; a sense of 'to mould' or 'to forge', both in themselves possible meanings of *exprimere* when used of the actions of craftsmen, would not bring out this antithesis. Another means of delimiting the meaning of *exprimere* is to attend to the fact that there is the progression mentioned from *sonitus linguae* to *nomina rerum*. If possible, we would want the word to bear out the increased delineation of sounds which are words; otherwise *subegit mittere* and *expressit* would come close to being equivalent. Next, the two abstract nouns *utilitas* and *infantia*: *utilitas* pushes, *infantia* pulls – but how can they, one may ask? They do represent a marked formal correspondence, but 'usefulness' and 'speechlessness' are categorically distinct, and it is thus not clear why they could be matching forces in some sense. Now one might think that one way to align them would be to assume that *utilitas* means '*awareness* or *consideration* of expediency', as indeed it often does when it features as the subject of a sentence with a predicate formed from a verb denoting an action (*OLD* s.v. 3a).[13] Then we could mentally supply 'awareness/consideration of' with *infantia*, and would get a matching pair: 'awareness/consideration of expediency' and 'awareness/consideration of speechlessness'. Yet this move is strongly discouraged by *infantia* being qualified by *ipsa*: it is speechlessness itself that pulls.[14] So how, then, can they match each other? *Infantia* is essentially the lack of something, and there is a sense of *utilitas* in which it amounts to 'need' or 'necessity';[15] 'need' and 'speechlessness', i.e. lack of speech, need for speech, make a much neater pair.[16]

I have suggested that *exprimere* must somehow balance *protrahere*, but that we would also want it to reflect the fact that *nomina rerum* are more clearly delineated than *sonitus linguae*. There is now a passage in book 4.549–62 which is relevant, given that the contemporary readership will have relied first and foremost on what they have heard already in making sense of the text:

T3 Hasce igitur penitus uoces cum corpore nostro
exprimimus rectoque foras emittimus ore,
mobilis articulat neruorum daedala lingua,
formaturaque labrorum pro parte figurat.

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[13] *utilitas* is thus used as a subject in Cic. *Part. or.* 94: *cum autem quaeritur quid sit optimum factu, aut utilitas aut spes efficiendi ad assentiendum impellit animos*; Cic. *Fin.* 2.78: *si utilitas amicitiam constituet*; Varro, *R.R.* 1.4.1: *utilitas quaerit fructum, uoluptas delectationem.*

[14] One might also be hesitant to credit young children with an *awareness* of their speechlessness.

[15] P.H. Schrijvers, 'L'origine du langage', in *Lucrèce et les sciences de la vie* (Leiden, 1999), 55–80, at 60–1, argued that *utilitas* only ever means 'usefulness', and others followed him (e.g. Atherton [n. 1], 105, n. 14; Verlinsky [n. 1], 91, n. 91). In Quint. 7.2.22 the question is considered whether the orator should set his cause against the opponent's cause as a whole, or individual argument against individual argument. The answer is that the needs of the individual case should be the determining factor: *quorum utrum sit faciendum non potest nisi ex ipsius litis utilitate cognosci.* That *utilitas* can mean 'need' cannot be plausibly denied. One way of reading the present article is as an attempt at showing how attractive the meaning 'need' is in 5.1029; one way of reading Atherton (n. 1) is as a demonstration how substantial the problems are which arise from taking the word to mean 'usefulness'.

[16] See the Appendix at the end of this article for a survey of published translations of *De rer. nat.* 5.1028–9 in the light of the observations made.

hoc ubi non longum spatiumst unde illa profecta
perueniat uox quaeque, necessest uerba quoque ipsa
plane exaudiri discernique articulatim;
seruat enim formaturam seruatque figuram.
at si inter positum spatium sit longius aequo,
aëra per multum confundi uerba necessest
et conturbari uocem, dum transuolat auras.
ergo fit, sonitum ut possis sentire neque illam
internoscere, uerborum sententia quae sit;
usque adeo confusa uenit uox inque pedita.

When therefore we press out these voices from
the inmost parts of our body, and send them forth
straight through the mouth, the quickly-moving
tongue, cunning fashioner of words, joints and moulds
the sounds, and the shaping of the lips does its part
in giving them form. When there is no long race for
each of those utterances to run from start to finish,
the words themselves also must necessarily be plainly
heard and distinguished in all their joints and moulding;
for the sound keeps its shaping and keeps its form. (Loeb trans.)

Before I proceed to the issue that interests me about this text, a worry needs to be allayed. The use of *exprimere* in 4.550 might appear to support the meaning 'to squeeze out' plain and simple for *expressit* in 5.1029. On closer examination, it does not do that: we hear that sounds (*uoces*) are squeezed out in the innermost region of our body and then emitted through our mouth (which is of course not the same thing, so *exprimere* and *emittere* are not synonyms here); when these *uoces* reach the mouth, it is the tongue and up to a point the lips which bring about articulation. If we look back to our passage and the progression from *linguae sonitus* to *nomina rerum*, it is clear that the added notion of shape-giving, which the verb that has *nomina rerum* as its object ought to carry, would not be adequately expressed by *exprimere* = 'to squeeze out' as used of unarticulated sounds in 4.550.

It has been observed that Lucretius seems to be using in **T3** the terminology of grammatical handbooks,[17] as can be seen e.g. from Donatus 4.367.5–7 Keil:

T4   de uoce
                 uox est aer ictus sensibilis auditu, quantum in ipso est.
                 omnis uox aut articulata est aut confusa.
                 articulata est, quae litteris comprehendi potest,
                 confusa, quae scribi non potest.

It is plausible to assume that Lucretius is in **T3** falling back on his knowledge of grammatical theory. This is suggested by the use of the noun *uox* of inarticulate sounds, and of *articulare* in the technical sense of 'to articulate'. The grammatical texts which feature this verb are all later than Lucretius, but Ax is right to suggest that this must be a coincidence of transmission, and that it would be wrong to credit Lucretius with a neologism *articulare* (formed from the diminutive of *artus*, *articulus*, which is in evidence since Plautus; see Ernout-Meillet s.v.);[18] otherwise we would have to assume that standard grammatical terminology in Latin was partly formed by

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[17] See W. Ax, *Laut, Stimme und Sprache – Studien zu drei Grundbegriffen der antiken Sprachtheorie* (Göttingen, 1986), 253–7.

[18] A. Ernout and A. Meillet, *Dictionnaire étymologique de la langue Latine* (Paris, 1979).

Lucretius.[19] The grammatical tradition, like the Epicureans, saw sound as something corporeal, which could be formed and articulated. What we have in the passage **T3**, however, goes beyond mere corporeality of sound. Rather, the result of articulation is said to have a *formatura* and a *figura* (556).[20] A point this passage effectively brings across is the idea that words, on the atomic level, have a clearly delineated shape. And this is an idea which is sustained in what follows (4.563–7), where the verb *obsignare* deserves special mention.

T5   praeterea uerbum saepe unum perciet auris
                omnibus in populo, missum praeconis ab ore.
                in multas igitur uoces uox una repente
                diffugit, in priuas quoniam se diuidit aures,
                obsignans formam uerbis clarumque sonorem.

                Besides, one word often awakens the ears of a
                whole crowd, when uttered by the crier's lips. There-
                fore one voice is dispersed suddenly into many voices,
                since it distributes itself among many separate ears,
                stamping on the words a shape and clear sound. (Loeb trans.)

The issue here is how the words uttered by the crier can be multiplied or reduplicated so as to be heard by many individuals. Bailey *ad loc.* is surely wrong in saying '…"imprinting" almost literally: the concrete sound-particle makes an impress on the ear': *uerbis* is dative not ablative, and the Loeb translator is right. In these passages in book 4 Lucretius has established the notion that words are corporeal entities with a clearly delineated shape,[21] and he has introduced sealing imagery in connection with their coming-into-being.

We can now try to apply these insights to **T2** and line 1029 in particular. As I indicated above, *exprimere* should here have a meaning which retains enough of the notion of 'squeezing out' to balance *protrahere* in line 1031. In addition, we would want to consider whether there is not any trace of the 'shapeliness' which we found associated with words in **T3** and **T5** (these texts talk of *uoces* while 5.1029 has *nomina*, but it is clear that this difference is insignificant in the present context). There is indeed such a use of *exprimere*: the verb is used of the mark caused by a seal[22] or a

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[19] The referee raises the question whether Lucretius might not have derived the concept of articulated sounds from Hellenistic Stoics, who are known to have employed it (S.E. *Adv. Math.* 8.275 = *SVF* II, frg. 135): Philodemus, a contemporary of Lucretius, was familiar with it too, cf. R. Janko, *Philodemus On Poems Book 1* (Oxford, 2000), 326–8. This possibility cannot be ruled out; what tells against it is the *terminological* correspondence between Lucretius and later grammarians, given that ἔναρθρος could be rendered in a number of ways in Latin, including through phrasal terms.

[20] The Loeb translator may be correct in seeing in 553–4 an allusion to runners who compete in a stadion; cf. 4.1196 *spatium decurrere amoris*. This would suggest that *articulare* has more than a tinge of 'articulate' in the concrete sense of 'to give limbs' (see *TLL* s.v., but the evidence is late). It may then not be overly fanciful to link the occurrence of the adjective *daedalus*, construed untypically with a genitive, with the inventor Daedalus, who famously constructed statues which could move on their own (see the material collected in R. Kassel, 'Dialoge mit Statuen', *ZPE* 51 [1983], 1–12 and S.P. Morris, *Daidalos and the Origins of Greek Art* [Princeton, 1992], 220–7); cf. 5.1451 *daedala signa*.

[21] More material on this particular point is in B. Holmes, '*Daedala lingua*: crafted speech in *De rerum natura*', *AJPh* 126 (2005), 527–85.

[22] *Act. Arv.* 118.I.31 (= p. clii Henzen), cf. *TLL* s.v. exprimo 1787.51–2: *tabulae…<si>gno <signatae quod> expressit kaput Augusti* (standard phraseology, cf. the other instances listed in the index of J. Scheid, *Commentarii fratrum arualium qui supersunt* [Rome, 1998]); Plaut. *Pseud.* 56 (1787.47–8): *expressam in cera ex anulo…imaginem*.

form from which some image is taken (e.g. the face of a deceased, when the death mask is taken).[23] This use is a very old one and an elementary one, and a number of other uses of the verb are derived from it (more than appears from the *TLL* article).[24] In all these cases *exprimere* takes an accusative object which denotes either the thing from which an imprint is being taken or else comes from the semantic field 'image', so that it is an image of a thing rather than the thing itself that is being 'expressed'. I think it is this second use which is the immediate model for the use in *expressit nomina rerum*: the *nomina* are in some sense[25] equivalent to images modelled on the things they are images of.[26] I would therefore translate *utilitas expressit nomina rerum* as 'need expressed [in the loaded sense determined by the use of the word of sealing and representation; cf. German *abdrücken*] the names of things'.[27]

We continue to work our way through the analogy. Need 'expresses' the names of things, just as speechlessness (*infantia*) draws young children to gestures. That is, speechlessness does not generate some sort of internal drive towards gesturing. Rather, it generates a vacuum-like pull, which is contingent on the surroundings (and in a broader sense the situation) the child is placed in and of which the child must be aware in order to point at items: the *praesentia* are on the evidence of the text logically prior to the pull caused by speechlessness (if there were no *praesentia*, no such pull would exist).

Now is the right moment to ask why children point at things. There are no suitable ancient parallels which we could use to illuminate this aspect of the analogy, and we are reduced to the application of common sense. The first thing to note is that, while

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[23] Plin. *H.N.* 1.35.44: *quis primus ex facie imaginem expressit.* See also Atherton (n. 1), 135, n. 64.

[24] Thus when *exprimere* is used of the actions of a craftsman, the term can convey an implied contrast with other verbs of representation (e.g. *adumbrare*) which can be explained through reference to the verb's use in contexts concerned with sealing. Cf. Cic. *Rosc.* 47 (cf. *TLL* 1789.24–6): *ut effictos a poetis nostros mores in alienis personis expressamque imaginem uitae.* G. Landgraf, *Kommentar zu Ciceros Rede Pro Sex. Roscio Amerino²* (Berlin, 1914), *ad loc.*: '*expressus* ist ein technischer Ausdruck von den runden, die volle Körpergestalt ausdrueckenden Formen, welche die plastische Kunst schafft, im Gegensatz zu den flachen Schattenrissen (*imagines adumbratae*) der zeichnenden Künste.'

[25] 'In some sense' according to this passage – there is of course a more concrete Epicurean sense according to which words are similar to images of the world, with humans acting as a medium; Atherton (n. 1) at 120 writes: 'At the atomic level, the sequence is indeed describable in purely physical or "mechanical" terms: the atoms constituting or shed by objects, or in the visual "films" (εἴδωλα, *simulacra*) which objects emit, impinge on the sense organs, the movements of which are transmitted to the soul, which in turn sets the vocal chords, tongue and other relevant parts in motion.'

[26] This kind of terminological cross-over between the visual (images) and the audible (words) is not extravagant and is in keeping with established usage. There is a use of *exprimere* of sounds, and of spoken words in particular. Vitr. 5.8.2 (cf. *TLL* 1791.34–6): *(loci) resonantes…, in quibus, cum uox…resiliat, imagines exprimendo nouissimos casus duplices faciat;* Aug. *Civ.* 14.24 (1791.37–9): *quidam uoces auium pecorumque et aliorum quorumlibet hominum sic imitantur atque exprimunt, ut…discerni…non possint.* Vitruvius discusses the architecture of particular types of theatre, and gives a list of theatres with defective acoustics: one of them, called *resonans*, is bad because it produces an echo which throws your own words back at you, swallowing the terminations in the process (it is a nice touch that the passage also brings into view the use of the term *imago* for 'echo'); St. Augustine talks about voice imitators.

[27] In this paper I am providing a largely immanent reading of **T2**. Thus I acknowledge only here that sealing imagery used in connection with words (or indeed impressions) is widespread in Greek philosophical texts (see J. Mansfeld, 'Illuminating what is thought. A middle Platonist *placitum* on 'voice' in context', *Mnemosyne* 58 [2005], 358–407, at 401–3 for a convenient collection of material).

children who cannot yet speak are at issue here, we should feel discouraged from thinking of very young children; the young animals which feature later on are not new-borns either. Young children just point at things randomly of course, on occasion. But normally, I suggest, they do not do that when they are alone; rather, the presence of other human beings is required, which creates a *situation*, involving an audience, and items the child can refer to, as well as the expectation (in some sense) on the part of the child that he or she will be understood when pointing at things. The pointing gestures which the child makes have, at the moment of pointing, a clear reference and do represent an act of communication; the information passed on might either be 'Look at this item', thus creating shared focus, or 'I want to have that item/hand over that item'. If we now consider the broader context (the early humans, as described by Lucretius, would have had good reason to alert each other to the presence of consumable items or indeed to warn each other about dangerous items within their ken), it is, I hope, clear that the assumption that children point in order to communicate (rather than just point things out for no discernible reason) fits well with the *utilitas – infantia* correspondence. In both cases, the surroundings prompt a *need* to communicate, the early humans generated names, young children point at things. There is more to be said later on about the idea that use of names is initially very much like pointing, and indeed about the way the two halves of the analogy form a whole.

  Lines 1033–40 in **T2** have given rise to very different interpretations. A focal point of the debate has been the meaning of *sentit* in 1033;[28] wary of a conflict with Lucretius' anti-teleological statement that limbs pre-exist their use and that it is wrong to assume that limbs were created for a certain use (4.823–42), scholars have been arguing for a meaning of *sentit* which is in some sense restricted to the perception of the external world.[29] Thus Campbell writes:[30] 'L. refers to an externally gathered sense of [the creature's] abilities arising from the experience of using them.'[31] The reader has, in the course of working through *De Rerum Natura*, certainly learnt enough about Epicurus' theory of perception and his stance towards teleology to be able to recognise a loaded, terminological sense of *sentire* when it occurs; yet this kind of interpretation would carry more conviction in the present case if Lucretius did not make it clear that the way animals behave when their horns, teeth etc. have barely developed is the issue.[32] It seems more natural to read the text as addressing the question why it is that young animals perform behaviour appropriate to their species before there are clearly perceptible clues in evidence on their (or their siblings') bodies suggesting it; and the answer to that question would then be pertinent to the emergence of language. There is arguably a straightforward interpretation of the Latin text, which scholars avoid because of the doctrinal commitments incurred by adopting it. On that interpretation, *sentire* in 1033 just means 'to sense' in a non-terminological, non-perceptual sense, so that the passage makes a statement about all creatures having a sense of what they can use their innate abilities for, and explains how they can get started in the first place.[33] This would commit us to some

  [28] On the grammar of the line see Verlinsky (n. 1), at 94, n. 97.
  [29] Cf. also Atherton (n. 1), at 107, n. 18 on *sensus*.
  [30] G. Campbell, *Lucretius on Creation and Evolution* (Oxford, 2003), 302.
  [31] Contrast the Stoic conception of self-perception as described by J. Annas, *Hellenistic Philosophy of Mind* (Berkeley and Los Angeles, 1992), 56–8.
  [32] See Schrijvers (above, n. 15), at 76.
  [33] In a context where *first* use of words is to be explained, the idea cannot be that they learn certain patterns of behaviour by observing their parents.

notion of instinctive behaviour, although the, as it were, scope of this instinct (e.g. which kinds of behaviour it accounts for or induces, and to what degree it explains them) will have to be considered.

It is now important to note that, given how the passage is constructed, it is clear that this instinct does not to the same degree account for the behaviour of young animals, pointing children and first speakers respectively; rather, it represents a causal factor of decreasing relevance. It explains to a large extent the behaviour of young animals (although there are background conditions for their behaviour), to a lesser extent the behaviour of pointing children (the additional causal factor there is their *infantia* which draws signs out of them), and to an even lesser extent that of the first speakers. For in this last case the awareness of their *uis* on the part of the first speakers can, together with the 'need' to communicate, account for their using the voice to designate items within their ken, but it cannot explain why they designate that item with that name. The explanation for this aspect of the emergence of language will, given the import of *exprimere* explained above, turn on the impingement of the external world on the physical make-up of the first humans, and it will involve concept formation following this impingement. That the role instinct plays is restricted by these other factors, or so I argue, is one of the ways in which the Epicurean account is set apart from any teleological one.[34]

In the following section (1041–55), Lucretius engages with an alternative model of how names came into being, that of the so-called namegiver.

T6
proinde putare aliquem tum nomina distribuisse
rebus et inde homines didicisse uocabula prima,
desiperest. nam cur hic posset cuncta notare
uocibus et uarios sonitus emittere linguae,
tempore eodem alii facere id non quisse putentur?
praeterea si non alii quoque uocibus usi
inter se fuerant, unde insita notities est
utilitatis et unde data est huic prima potestas,
quid uellet facere ut sciret animoque uideret?
cogere item pluris unus uictosque domare
non poterat, rerum ut perdiscere nomina uellent.
nec ratione docere ulla suadereque surdis,
quid sit opus facto, facilest; neque enim paterentur
nec ratione ulla sibi ferrent amplius auris
uocis inauditos sonitus obtundere frustra.

Therefore to suppose that someone then distributed names amongst
things, and that from him men learnt their first words,
is folly. For why should he have been able to mark all things
with titles and to utter the various sounds of the tongue,
and at the same time others not be thought able to have done it?
Besides, if others had not also used these terms
in their intercourse, whence was that knowledge of usefulness implanted
in him,
and whence did he first gain such power, as to
know what he wanted to do and see it in his mind's eye?
Compel them again he could not, one against many, nor could he
master and conquer them, that they should wish to learn the names of

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[34] Teleologists would and do say things that sound similar (see Galen, *De usu partium* p. 4.23–5 Helmreich and Verlinksy [n. 1], at 94–8: αἴσθησιν γὰρ πᾶν ζῷον ἀδίδακτον ἔχει τῶν τε τῆς ἑαυτοῦ ψυχῆς δυνάμεων καὶ τῶν ἐν τοῖς μορίοις ὑπεροχῶν). On my view, Lucretius is saving the φαινόμενα from misappropriation.

things;
nor is it easy to teach in any way or to persuade what is necessary to
be done, when men are deaf; for they would not have suffered
or endured in any way that he should go on dinning into their
ears sounds of the voice which they had never heard, all to no purpose.
(Loeb trans.)

After an introductory statement of purpose, Lucretius shows (1043–9) that the
namegiver cannot be explained in terms of Epicurean psychology and epistemology
and is incompatible with both. In 1046–9, it is argued that the namegiver (i) can only
have a notion of usefulness and (ii) 'can have the first power to know and see with his
mind what he wanted to do', if others, indeed everyone, had been using names
(referred to as *uoces* in this case) too. One can readily see how everyone's use of
names, along the lines described in 1028–33, crucially not yet governed by a notion of
usefulness, would only bring about such a notion over time. It is less clear why the
fact that nobody else uses names should account for his being unable to 'see with his
mind what he wanted to do'. This question may serve to bring out that what I labelled
(ii) above is actually a consideration which follows on from (i), rather than being
coordinated with (i): if the namegiver has not heard others utter names, he cannot
develop a preconception of usefulness *and therefore* cannot see in his mind what he
wants to do. Note that the namegiver is not entitled to Epicurean doctrinal
assumptions about how names come into being, and consequently needs to have
more complex and elaborate faculties than the first speakers have on the Epicurean
model, which involve a notion of usefulness from the very beginning. Thus I take
1049 (*quid uellet facere ut sciret animoque uideret*) to refer pointedly to more complex
faculties than the first speakers of 1029–33 possess.[35] The following counterfactual
description of the futile efforts of the namegiver bring out one issue *inter alia*: that
Lucretius appears to think that his account would not have difficulty explaining how
first words came to be understood. The text does not touch explicitly on this
important problem.

In the following section, it is asserted that there is nothing particularly remarkable
about humans uttering names in response to their surroundings, given that different
species of animals produce different noises depending on their emotional state
(which, it is to be understood, is connected with their surroundings). Atherton has
argued that linguistic communication is categorically distinct from vocalisations made
by animals, first and foremost because it is governed by choice, and that consequently
the argument made here 'is, as it stands, a *non sequitur* of the first order'.[36] Unlike
Atherton, I regard Lucretius as aware of the problem that an account of how
language came into being needs to explain how it was possible for humans to control
their vocalisations. How then can Lucretius create an analogy, misleading at best,
between human and animal vocalisations? I would draw attention to the compart-
mentalisation of Lucretius' account which I mentioned earlier; because of the way in
which the physical story of how names come into being and the reference to the need
to communicate are put together (to amount to a sketchy account of linguistic

[35] Cf. ἐπιστημόνως in Proclus *in Plat. Crat.* 17.5–17 (= fr. 335 Usener): ὁ γὰρ Ἐπίκουρος
ἔλεγεν οὐχὶ ἐπιστημόνως οὗτοι ἔθεντο τὰ ὀνόματα, ἀλλὰ φυσικῶς κινούμενοι ὡς οἱ
βήσσοντες καὶ πταίροντες καὶ μυκώμενοι καὶ ὑλακτοῦντες καὶ στενάζοντες, 'Epicurus said
that they [the first humans] did not assign names to things employing rational thought, but were
prompted naturally like creatures who cough, sneeze, moo, bark and moan.'
[36] Atherton (n. 1), at 114.

communication), it is possible to talk about one of these two components without any reference to the other. This being so, it may seem expedient for Lucretius' overall argument to focus on the emergence of names in isolation from the issue of how to control names, particularly when the contrast with the rival model of the namegiver allows him to narrow the issue rhetorically, as if the namegiver was an implausible construct because there was no moo- or bark-giver either. This may be unsatisfactory from a philosophical point of view, but quite in keeping with forensic strategies employed by Lucretius elsewhere.

If we now apply these findings to **T1** above, it will be clear that I see little reason to hold that Epicurus was unaware of the fact that names which arise naturally need to be controllable by speakers for linguistic communication to come into existence. Rather I would assume that the summary nature of the *Epistula ad Herodotum*, together with the implicit contrast with the alternative model of the namegiver, account for the fact that the text at most hints that Epicurus does not have a deficient conception of what he needs to explain if he wants to give an account of how language came into being, at least as far as the charges under consideration are concerned; these hints consist in the reference to the first words as δηλώσεις and in the implication that first words were used for communication as soon as they emerged, without articulating what communication means. Put differently, the evidence from Lucretius can be seen to answer the question (posed above, p. 129) whether **T1** is confused or elliptic in dealing with the challenges facing a naturalist account of the emergence of language. Given the elliptic manner in which *Epistula ad Herodotum* deals with the issues of choice and intention, it is not surprising that less reliable texts concerning Epicurean views on the emergence of names do not make reference to them.[37]

I conclude by outlining four points of interest which might be investigated further. The first is how 'need' (*utilitas*), identified above as a crucial factor in the first use of words, is to be taken, i.e. is it need consciously felt by the first speakers and intentionally acted on, or need which is not of the speakers' conscious making but can be explained with reference to the situation and the mental disposition of the speaker at the time; the former seems the more plausible interpretation from a modern point of perspective and also fits with other passages in Lucretius which seem to exhibit a common sense view of motivation (2.255–62, 4.779–87, 4.877–8); the latter is more in line with Epicurean views on agency, at least according to one influential reconstruction.[38] For need (and *infantia*) to play the role it is supposed to play in my account, the subject must have control over what he wants to refer to (but 'control' may have to be suitably redescribed if we explain 'need' in terms of the Epicurean

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[37] The texts in question are Demetrius Laco, P. Herc. 1012, col. 67.4–5 Puglia; Diog. Oen. fr. 12.II.11–III.7 (who suggests that the first words included nouns as well as verbs); Origen, *Contra Celsum* 1.24.8–16 (= fr. 334 Usener); Proclus *in Plat. Crat.* 17.5–17 (= fr. 335 Usener) (above, n. 35). All texts are quoted and translated in Campbell (n. 30), 287–9. A point on which all these texts agree is that on Epicurus' account names did not evolve from inarticulate grunts by a gradual process.

[38] S. Bobzien, 'Did Epicurus discover the free will problem?', *OSAPh* 19 (2000), 287–337, at 337: 'Epicurus…had a different concept of human agency and of moral responsibility: human actions are fully determined by the mental disposition of the agents when they set out to act. Moral responsibility presupposes not free decision or free choice, but the absence of coercion and autonomous agency, i.e. that the person, and not something else, is causally responsible for actions for which they are to be held morally responsible. Autonomous agency requires the ability of the agents to influence causally, on the basis of their own beliefs, the development of their behavioural dispositions.'

account of agency). The second is that the emergence of linguistic communication is, according to the argument above, a multi-causal event, in which a rudimentary instinct, 'need', and the impingement of the external world on the speaker, as well as how the individual's physical make-up reacts when impinged upon, all play a role. This means that the force nature exercises on humans or the compulsion under which they are said to act according to Epicurus, *Epistula ad Herodotum* 75 or Lucretius, *De Rerum Natura* 5.1028, when they make their first utterances, is contingent on other factors, some of which are dependent on the situation in which first speakers find themselves. I do not believe that Epicurus or Lucretius envisaged early humans randomly yelling names, motivated by nothing else but their surroundings impinging on them; among other things, this would raise the problem of how humans *gained* control over pre-existing, articulated, but uncontrolled, sequences of sounds.[39] The third is the notion of instinct at work here. There are other Epicurean texts which might be re-examined in the light of the arguments above, notably the fragments of Epicurus' $\Pi\epsilon\rho\grave{\iota}$ $\phi\acute{\upsilon}\sigma\epsilon\omega\varsigma$ Book 25,[40] in order to clarify how the Epicureans would formulate and justify such a conception. But we can also extract more from **T2**, as was seen by Atherton.[41] Above I have used the two halves of the analogy in **T2** so as to illuminate each other, but it is arguable that Lucretius means to represent sign-making and first word use as essentially manifestations of the same ability: that is, humans are 'natural sign-makers' (Atherton), and they put this innate ability to use when uttering first words. So while Hammerstaedt is right that a word 'può indicare una certa realtà anche nei momenti in cui quest' ultima non si percepisce più o non ancora',[42] and while a linguistic theory would eventually need to accommodate this fact, *first* use of language *is* for Lucretius pointing by different means. If we now look back to section (2) of **T1** and recall that first words are referred to as $\delta\eta\lambda\acute{\omega}\sigma\epsilon\iota\varsigma$ there, then this would suggest that behind Lucretius' image of pointing children lurks a crucial bit of genuine Epicurean doctrine. Finally, there is the question how understanding first words is supposed to work. The situations in which linguistic communication first occurs are presumably to be described rather narrowly. And it would be in keeping with the principles of Epicurean epistemology, and not an unreasonable assumption in itself, if the first listeners had already rudimentarily conceptualised through visual perception the – one would assume – everyday objects the first speakers would have reason to refer to.[43] But there would also have to be an explanation of the mental processes on account of which early humans, in the instant of first hearing a particular name, were able to understand that this name designates this object.

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[39] Atherton (n. 1), 129–37 wrestles with this problem.

[40] See S. Laursen, 'Epicurus, *On nature* xxv', *CErc* 17 (1987), 77–8; id., 'The early part of Epicurus, *On nature* xxv', *CErc* 25 (1995), 5–110; id., 'The later part of Epicurus, *On nature* xxv', *CErc* 27 (1997), 5–82; J. Annas, *Hellenistic Philosophy of Mind* (Berkeley and Los Angeles, 1992), 177; J. Annas, 'Epicurus on agency', in J. Brunschwig, M. Nussbaum (edd.), *Passions & Perceptions. Studies in the Hellenistic Philosophy of Mind* (Cambridge and Paris, 1993), 53–71.

[41] Atherton (n. 1), 131–2.

[42] J. Hammerstaedt, 'Il ruolo della $\pi\rho\acute{o}\lambda\eta\psi\iota\varsigma$ epicurea nell' interpretazione di Epicuro, *Epistola ad Herodotum* 37f', in G. Giannantoni and M. Gigante (edd.), *Epicureismo greco e romano: atti del Congresso Internazionale, Napoli, 19–26 Maggio 1993* (Naples, 1996), 221–37, at 228.

[43] This consideration is one reason why I feel discouraged from bringing 5.1022–3 to bear on **T2**: first humans are unlikely to have started linguistic exchanges by discussing principles of moral behaviour.

APPENDIX

In the light of the interpretation set out above, I survey some of the translations which have been offered (or hinted at in the form of commentary notes) for Lucretius, *De Rerum Natura* 5.1028–9. Arrangement is by points of interest raised by them.

W.H.D. Rouse (ed.; rev. M.F. Smith), *Lucretius – De rerum natura* (Cambridge, Mass., 1992) (Loeb): 'But the various sounds of the tongue nature drove them to utter, and convenience moulded the names for things.' Here the translation 'to mould' for *exprimere* does not bring out the antithesis with *protrahere*, and the translation 'convenience' makes the correspondence of *utilitas* with *infantia* unrecognisable.

A.A. Long and D.N. Sedley, *The Hellenistic Philosophers* (Cambridge, 1987), vol. 1: 'It was nature that compelled the utterance of the various noises of the tongue, and usefulness that forged them into the names of things.' The same criticism applies to the rendering 'to forge' which applies to 'to mould'; moreover, when *exprimere* denotes the actions of an artist, these are usually less gross than is suggested by 'to forge'.

W.E. Leonard and S.B. Smith, *T. Lucreti Cari De rerum natura libri sex* (Madison, 1942), at 335 on 5.1029: '**utilitas expressit** nature forced them to utter general sounds; experience of their use made them give definite terms to definite things.' The phrase 'experience of their use' reveals awareness of the fact that *utilitas*, when used as a subject, normally means 'consideration/awareness of usefulness', but 'of their use' is problematic: *utilitas* cannot and never does mean 'use' as in 'continued use over a period of time' in Latin.

H.A.J. Munro, *T. Lucreti Cari De rerum natura libri sex* (London, 1928), vol. 2: 'But the diverse sounds of the tongue nature constrained men to utter, and use shaped the names of things ...'. That *utilitas* cannot mean 'use' precludes that *expressit nomina rerum* denotes the honing of rough sounds into words over a period of time (in itself a possible meaning of *exprimere*).

C. Bailey, *Titi Lucreti Cari De rerum natura libri sex* (Oxford, 1947), vol. 3 ad loc.: '**expressit** not in its primary sense "forced out", i.e. an equivalent of *subegit mittere*, but in the derived sense in which it is used of sculpture, etc., "formed", "fashioned", a more conscious process.' Again, the antithesis with *protrahere* would not be recognisable, and in assuming that there was anything conscious in the formation of words, Bailey brings Lucretius close to contradicting Epicurean orthodoxy; according to **T1**, names are supposed to come about naturally through the interaction of the atomic make-up of the early humans with their enviroment.

A. Ernout, *Lucrèce – De la nature* (Paris, 1948), vol. 2: 'Quant aux divers sons du langage, c'est la nature qui poussa les hommes à les émettre, et c'est le besoin qui fit naître les noms de choses.' The term *utilitas* is, I believe, translated correctly, but the translation of *exprimere* does not reflect the progression from *sonitus linguae* to *nomina rerum* (Ernout was perhaps thinking of childbirth).

H. Diels, *T. Lucretius Carus: De rerum natura* (1923–4), vol. 2: 'Wenn nun der Zwang der Natur verschiedene Laute der Sprache bildete und das Bedürfnis die Namen der Dinge hervorrief, ging dies gerade so zu, wie wenn sich auch unsere Kleinen stummer Gebärden bedienen aus Unvermögen der Sprache und mit dem Finger auf das, was sie sehen, zu deuten gewöhnt sind.' Similarly, Diels' translation of *utilitas* seems correct to me, but he is imprecise on *subegit mittere* and *expressit*. One way of dealing with the antithetical correspondence *exprimere-protrahere* is to obliterate it (with Diels' 'hervorrief' compare *TLL* s.v. *exprimo* 1786.15–31 'fere i. q. extorquere, elicere, educere').