'QUIPPE UBI' IN LUCRETIUS, *DE RERVM NATVRA* 1.167–8 AND 4.925–8

1.167–8

Nam si de nilo fierent, ex omnibu' rebus
omne genus nasci posset, nil semine egeret.
e mare primum homines, e terra posset oriri
squamigerum genus et uolucres erumpere caelo;
armenta atque aliae pecudes, genus omne ferarum,
incerto partu culta ac deserta tenerent.
nec fructus idem arboribus constare solerent,
sed mutarentur, ferre omnes omnia possent.
quippe ubi non essent genitalia corpora cuique,
qui posset mater rebus consistere certa?

For if things came into being from nothing, every kind of thing could be born from all things, they would have no need of seed. First of all, human beings could spring from the sea, the scaly tribe from earth, and birds hatch from the sky; cattle and other livestock, and every kind of wild creature would inhabit by haphazard birth cultivated lands and wilderness. Nor would the same fruits be in the habit of keeping constant to their trees, but would change; every tree would be able to bear every fruit. For, when/since there would not exist generative bodies for each kind of thing, how could there continue to be an invariable mother for things?[1]

In order to prove the validity of the principle that nothing can come into being out of nothing, Lucretius introduces, in the passage quoted above, the counter-hypothesis that if things could come into being out of nothing, everything could come in to being out of everything. The poet proceeds to illustrate the counter-hypothesis with examples of outlandish generation in the animal and vegetable kingdoms, which are intended to show that the counter-hypothesis is completely untenable. The series of examples is rounded off with a question (167–8), according to the traditional punctuation, which appears to be a restatement, in interrogative form, of the principle that is being defended, nothing can come into being out of nothing; for everyone recognizes that things do in fact have a fixed unchanging mother and that therefore there must be *genitalia corpora* out of which things are generated.

There is considerable confusion in the commentaries and translations about the meaning and syntax of *quippe ubi*, the words that begin a new sentence in 167. The main question is whether (1) the two words are to be taken together to mean 'seeing

[1] In my translation of 167–8 I have given the generally accepted interpretation of *quippe ubi*, although, as the 'when/since' equivocation indicates, there is some disagreement about whether *ubi* is temporal or causal; it has also been translated as the conditional, 'if': see n. 5. There is, however, complete agreement in the editorial tradition that 167–8 are a question. The text of the *De rerum natura* is quoted from C. Bailey, *Titi Lucreti Cari De Rerum Natura Libri Sex. Edited with Prolegomena, Critical Apparatus, Translation, and Commentary* (Oxford, 1947). This edition and the following are hereafter referred to by editor's name and date: C. Lachmann, *T. Lucreti Cari De Rerum Natura Libri Sex* (Berlin, 1850); J. Bernays, *T. Lucreti Cari De Rerum Natura Libri Sex* (Leipzig, 1852); H.A.J. Munro, *T. Lucreti Cari De Rerum Natura Libri Sex: with Notes and a Translation* (Cambridge, 1864[1], 1886[4]); W.A. Merrill, *T. Lucreti Cari De Rerum Natura Libri Sex* (New York 1907); A. Ernout, *Lucrèce. De la nature: texte établi et traduit* (Paris, 1920); J.D. Duff, *T. Lucreti Cari De Rerum Natura Liber Primus* (Cambridge, 1923); W.E. Leonard and S.B. Smith, *Titi Lucreti Cari De Rerum Natura Libri Sex. Edited with Introduction and Commentary* (Madison, 1942); E.J. Kenney, *Lucretius. De Rerum Natura Book III* (Cambridge, 1971); P.M. Brown, *Lucretius: De Rerum Natura I* (Bristol, 1984).

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that/since in that case', introducing an explanation for a previous assertion, a well-established Lucretian usage;[2] or (2) the *quippe* is to be taken closely with the interrogative *qui* and the *ubi* is to be interpreted as the temporal relative adverb 'when'.[3] After discussing these possibilities in his commentary, Bailey adopts interpretation (1) on the ground that since elsewhere in the poem the two words form a unit meaning 'seeing that/since in that case', it would be unwise to separate them here. However, having argued in favour of *quippe ubi* as a unit introducing an explanation, Bailey translates in a way that suggests something like interpretation (2) because *quippe* and *ubi* are taken separately: 'Why, were there not bodies to bring each thing to birth, how could things have a fixed unchanging mother?' The particle *quippe* is treated as an interjection (apparently the 'why' of affirmation) and goes closely with the interrogative *qui*; *ubi*, rather than referring to the conditions of the counter-hypothesis ('in that case') as Bailey's note indicates, seems to function as the equivalent of *si* in the protasis of a contrary-to-fact condition, 'were there not bodies to bring each thing to birth'. The difficulties involved in interpreting *quippe qui* in this passage, and the discrepancy between the commentator's explanation of the construction and his translation clearly call for further investigation.

We turn to Munro for guidance. In his note on *quippe ubi* Munro concludes that *quippe* goes closely with the interrogative *qui* in 168 and that the words *ubi … cuique* form a separate clause; what kind of clause he does not say. Like Lachmann (1850) and Bernays (1852), he punctuates with a comma after *quippe* to separate the particle from the *ubi*-clause. In addition, Munro observes that although there are instances of *quippe ubi* which function as a unit meaning 'seeing that/since in that case' elsewhere in the poem, Lucretius 'never cares to avoid such ambiguities of construction'. The one parallel that Munro cites, 1.242, as an example of *quippe* and *ubi* taken separately is in fact an explanatory *quippe ubi*-clause.[4] We encounter an additional difficulty when we turn to the translation in order to discover what kind of clause *ubi … cuique* is. In Munro's translation *quippe* and *ubi* are indeed working independently of one another; *quippe* is given its proper explanatory force, 'for', but the nature of the *ubi essent*-clause is obscured, as in Bailey's version, because it is translated as the equivalent of *si essent*: 'for if there were not begetting bodies for each…'. Although there is no great difficulty in giving conditional force to *ubi*, there is a very serious difficulty, as I will explain, in treating *ubi … essent* as if it were *si … essent*, the protasis of a contrary-to-fact condition. Again we are confronted with an interpretation that does not satisfactorily address the meaning and syntax of *quippe ubi* when placed at the beginning of the sentence and followed by the imperfect subjunctive. [5]

[2] Indisputable occurrences of the explanatory *quippe ubi*-clause in the *De rerum natura* at 1.182, 242, 617, 990; 3.430; 4.434; 5.1158. These clauses may have their verb in the indicative or subjunctive, and they always follow the assertion that they explain.

[3] There are three occurrences of *quippe* followed by a temporal *ubi*-clause: 4.664, 771; 6.854. These clauses have their verbs in the indicative and are found at the beginning of the sentence. One presumed occurrence of this construction, 4.925, is better interpreted, as I will show, as an explanatory *quippe ubi*-clause.

[4] See Bailey (n. 1) and Brown (n. 1) on 1.242. For examples of *quippe* and *ubi* taken separately see n. 3.

[5] Although there is a clear preference among editors and commentators for taking *quippe* and *ubi* separately, there is little agreement about the meaning of the clause. There are basically three interpretations of *ubi essent*: (1) as the equivalent of *si essent* (Munro [n. 1, 1886⁴], Merrill [n. 1], and Bailey [n. 1] in his translation); (2) as the equivalent of a *cum* circumstantial or causal clause with the potential subjunctive, i.e. 'when/since there would be', (Ernout, Duff, Brown [all n. 1]); (3) as the equivalent of a simple *cum*-circumstantial clause, i.e. 'when each thing did not have'

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The immediate task, then, is to clear up the confusion about what these words mean in the context of 167–8. As I will try to show, of the two choices offered in the various discussions of 167–8, namely whether to take *quippe ubi* as a semantic unit or to take them separately, the latter is the only choice that is syntactically possible with the traditional punctuation of 1.167–8; but, even so, it is a bad choice.

If *quippe* and *ubi* are to be taken together as a unit, then *quippe* is a particle that gives explanatory force to the relative clause introduced by the adverb *ubi* ('in which case'), and *ubi* refers to the conditions of the counter-hypothesis. It is important to emphasize here that *quippe* itself is not a subordinating conjunction, because the translation 'seeing that' or 'since' misleadingly suggests that it is;[6] in fact the customary translation misrepresents the syntactic function of each word; *quippe* becomes a subordinating conjunction 'seeing that', and *ubi* becomes a demonstrative 'in that case'. As a result, it has been mistakenly assumed that the two words, taken together, can introduce a subordinate clause at the beginning of a new sentence: 'Seeing that in that case there would not exist generative bodies for each thing, how could there be a fixed unchanging mother for things?' In reality, what we have is an explanatory particle followed by, according to the traditional punctuation of 167–8 as a question, a connecting relative; the sense must be 'For in that case there would not exist…', an independent sentence that is not subordinated to the question *qui … certa*. In short, neither word can provide the necessary subordination to join *non essent genitalia corpora cuique* to *qui posset mater rebus consistere certa* in a single sentence. If *ubi* is taken as the relative in 1.167, then *quippe ubi* at the beginning of a new sentence will be the equivalent of *nam ibi* and we are left with a complete breakdown of the syntax if 167 and 168 are to be construed as a single sentence.

An example will help to clarify Lucretius' use of the *quippe ubi*-clause to introduce an explanation for a previous assertion (1.180–3). In order to prove that plants flower or bear fruit in due season because of the existence of *semina* the poet introduces a counter-hypothesis:

> quod si de nilo fierent, subito exorerentur
> incerto spatio atque alienis partibus anni,
> quippe ubi nulla forent primordia quae genitali
> concilio possent arceri tempore iniquo.

But if they [plants] came from nothing, they would suddenly arise at unpredictable intervals and at the wrong times of year, seeing that in that case there would be no first beginnings which could be kept from generative combination by the adverse season.

This example brings out clearly the point of syntax, mentioned earlier, which has been overlooked in discussions of 1.167. When *quippe qui* function as a unit to explain a previous assertion, *ubi* is a relative adverb governing a subordinate clause, whose antecedent occurs earlier in the sentence. In the passage quoted above the antecedent is the counter-hypothesis stated in 180–1, *si de nilo fierent … exorerentur*. Hence the

(Leonard and Smith [n. 1]). All three of these interpretations employ the same strategy of assimilating, without explanation, a highly unusual construction, temporal or causal or conditional *ubi* with the imperfect of the potential subjunctive, to the seemingly familiar constructions of *cum* and *si* with the imperfect of the potential subjunctive; I say 'seemingly' because *cum* with the potential subjunctive is itself in need of explanation.

[6] For example, Leonard and Smith (n. 1) in their note on 167–8 translate *quippe ubi*, when taken together, as 'Since, on that assumption…'. But *quippe* does not function in Latin as the equivalent of the subordinating conjunction 'since'.

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quippe qui-clause follows the assertion it explains. Now if in 1.167–8 *quippe ubi* begin a new sentence, as they do according to the traditional punctuation, then they cannot mean 'seeing that/since in that case' because *quippe* itself is not a subordinating conjunction, and *ubi*, the antecedent of which is located in another sentence, can no longer function as a relative governing a subordinate clause.

The alternative is to take *quippe* and *ubi* separately. There are three examples of this construction in the poem, 4.664, 4.771 and 6.854, in all of which the two words begin a new sentence. At 4.664 the particle *quippe* introduces an explanation and *ubi* is undoubtedly the temporal adverb 'when' as is indicated by the repetition of the correlative *ibi* in 4.666 and 4.667. At 4.771 and 6.854 the syntax of the sentence leaves no doubt that *ubi* is introducing a temporal clause. In all three cases the verb in the *ubi*-clause is in the indicative: *coorta est* and *est excita* 4.664–5; *perit* and *est nata* 4.771; *quierit* (future perfect) 6.855[7]. If this interpretation is adopted in 1.167–8, the meaning will be, 'for, when/since there would not exist generative bodies to bring each thing to birth, how could things have a fixed unchanging mother?' Here two problems emerge, one of syntax, the other of sense.

First syntax. The use of *ubi* governing the imperfect subjunctive in what looks like an unreal supposition (whether one wants to translate 'when', 'since' or 'if' makes no difference for the discussion) is without example in our poet and in the period in which he wrote.[8] Temporal or causal *ubi* with the indicative is the rule in Lucretius except in those few places where the syntax calls for the subjunctive. Four occurrences of *ubi* with the present subjunctive are easily accounted for by Lucretius' fondness for the generalizing second person singular: *ubi nequeas* 2.313; *ubi uideas* 3.870; *ubi apportes* 5.100; *ubi admoueas* 6.901.[9] The clause *ubi … non essent*, however, remains an anomaly for which no satisfactory explanation has yet been given.

The second difficulty lies in the question itself. Even if it were possible to construe the clause as an unreal supposition, the question itself 'When/since there would not exist generative bodies for each kind of thing, how could there continue to be an invariable mother for things?' is problematic for two reasons: first, it seems premature

[7] For *ubi* with the future perfect indicative cf. 1.155 and 6.998; and see R. Kühner and C. Stegmann, *Ausführliche Grammatik der lateinischen Sprache* (Hannover, 1955[3]), 2.2.363–4.

[8] See Kühner and Stegmann (n. 7), 359–64; M. Leumann. J.B. Hofmann and A. Szantyr, *Lateinische Grammatik* (Munich, 1965), 2.651–2; J. Lebreton, *Études sur la langue et la grammaire de Cicéron* (Paris, 1901), 418 n. 1; and for additional examples C.E. Bennett, *Syntax of Early Latin* (Boston and Leipzig, 1910) vol. 1, 86–90. Even when *ubi* has causal or conditional colouring, it is followed by the indicative in this period. Catullus 63.67, *linquendum ubi esset orto mihi sole cubiculum*, is not a parallel; *esset* is subjunctive in a frequentative clause and *ubi* means 'whenever'. See C.J. Fordyce, *Catullus. A Commentary* (Oxford, 1961), and D.F.S. Thomson, *Catullus: edited with a Textual and Interpretative Commentary* (Toronto, 1997).

[9] One occurrence remains problematic, *ubi iactentur … laborent* 3.506–7. Since *ubi … iactentur … laborent* is a causal clause that states the conclusion of the proofs given in 459–505, there appears to be no reason for the use of subjunctive in the *ubi*-clause. Kenney (n. 1) expresses reservations about the construction and notes that 'the grammars seem to offer no other instances' for causal *ubi* with the subjunctive. It is possible that Lucretius employs the subjunctive here in order to impute acceptance of the conclusion expressed in the *ubi*-clause to his addressee, the indefinite subject of *credis*, and thereby more forcefully to expose the contradiction in the addressee's position, namely that on the one hand, the *anima–animus* complex can break down in the body, while, on the other, the *anima–animus* complex can retain its integrity in a much less protective environment, i.e. outside the body in the open air. In the *ubi*-clause at 4.195, *ubi tam uolucri leuitate ferantur*, *ubi* in all likelihood is not causal, as it is usually taken to be, but spatial, and *ferantur* is subjunctive in a generic relative clause, according to Munro's (n. 1, 1886[4]) interpretation.

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at this stage in the argument because it anticipates the true state of affairs, introduced by *at nunc* at 169 (*at nunc seminibus quia certis quaeque creantur*), which invalidates the counter-hypothesis; and second, it leaves the reader to infer, at the very outset of the poet's exposition of the *uera ratio*, a point of fundamental importance, the necessity of *genitalia corpora* for generation by kind, without making explicit the causal connection between *genitalia corpora* and *mater certa*. To establish that essential connection, the examples of bizarre, unpredictable generation, which result from the counter-hypothesis, should be followed by an explanation that compels the reader to conclude, on the basis of empirical evidence, that the counter-hypothesis must be false and that *genitalia corpora* must be the cause of generation because the reader knows from experience that there are fixed sources for the generation of things by kind and that generation is caused by *semina* ('biological seeds'). Yet the question and its implied answer assume that explanation as already established because it expects the reader's ready assent in the conclusion, nowhere stated, that the examples of bizarre generation must follow from the conditions of the counter-hypothesis because there would be no *genitalia corpora* to ensure generation by kind from an invariable source. Establishing the causal relationship between the examples and the function of *genitalia corpora* is essential to the poet's argument because the generation of human beings from the sea and fish from the earth are nothing more than entertaining absurdities until their philosophical importance is established; and that is accomplished when the reader is informed that these phenomena would occur if there were no *genitalia corpora*. What is missing from the argument is that crucial step in which the poet asserts that the examples based on the counter-hypothesis are what would happen if *genitalia corpora* did not exist because they are the cause of invariable sources of generation.

That crucial step is easily supplied by the re-punctuation of lines 167–8 as an explanatory *quippe ubi*-clause subordinate to what precedes it, rather than as a temporal or causal or conditional *ubi*-clause that is subordinate to the direct question that follows. On this interpretation *qui* in 168 will be not the interrogative, but the relative, the antecedent of which is *genitalia corpora*[10]:

> Nam si de nilo fierent, ex omnibu' rebus
> omne genus nasci posset, nil semine egeret:
> e mare primum homines, e terra posset oriri
> squamigerum genus et uolucres erumpere caelo;
> armenta atque aliae pecudes, genus omne ferarum,
> incerto partu culta ac deserta tenerent;
> nec fructus idem arboribus constare solerent,
> sed mutarentur, ferre omnes omnia possent,
> quippe ubi non essent genitalia corpora cuique,
> qui posset mater rebus consistere certa.

For if things came into being from nothing, every kind of thing could be born from all things, they would have no need of seed. First of all, human beings could spring from the sea, the scaly tribe from earth, and birds hatch from the sky; cattle and other livestock, and every kind of wild creature would inhabit by haphazard birth cultivated lands and wilderness. Nor would the same fruits be in the habit of keeping constant to their trees, but would change; every tree would be able to bear every fruit, *seeing that in that case* there would not be generative bodies for each kind of thing, *by which* there could continue to be an invariable mother for things.

[10] Cf. 1.700, 4.615 and 5.233.

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With this punctuation the syntactic problem of *ubi* with the imperfect subjunctive in an unreal supposition disappears. The logic of the argument is improved because it is now clearly stated that *genitalia corpora* are the cause of the order and regularities of generation observed by all and provide the ultimate explanation for the invalidity of the counter-hypothesis. And there is the added benefit that the transitional phrase *at nunc* in 169 now marks a return, as it always does in the poem, to the true state of affairs. With the old punctuation the transition signalled by *at nunc* is anticipated, as noted earlier, by the question *qui posset mater rebus consistere certa*, which implies agreement with the conclusion that follows *at nunc*, namely that all things are created from *semina certa*. Readers would expect what precedes *at nunc* to be at variance with what follows it.

We now have a thoroughly Lucretian construction for which there are two exact parallels in the poem for both the structure of the argument and the syntax of its expression. At 1.238–47 a counter- hypothesis is explained by a *quippe ubi*-clause (242–3) with its verb in the imperfect subjunctive; and in 244 *at nunc*, following immediately upon the *quippe ubi*-clause, marks the transition to the true state of affairs. The same structure of argument and syntactic organization are found at 1.984–94: counter-hypothesis with explanatory *quippe ubi*-clause (990–1), followed by the transitional phrase *at nunc* (992). These parallels, together with the problems of meaning and syntax caused by the old punctuation, are decisive in confirming the re-punctuation of 1.167–8 as an explanatory *quippe ubi*-clause, with *qui* governing a relative clause. The only reason that these two lines have for centuries been punctuated as a question is the failure to recognize that *qui* here functions as the relative with *genitalia corpora* as its antecedent. Once that is recognized, *qui* interrogative has nothing to recommend it.

As a consequence of the observations presented here about the syntax of the explanatory *quippe ubi*-clause and *quippe* followed by a temporal *ubi*-clause, it becomes necessary to revise the punctuation of 4.925–8, which editors punctuate as a question. Here again we are confronted with *quippe ubi* beginning a new sentence and followed by the imperfect subjunctive; and the *ubi*-clause precedes a question introduced by *unde*. Since this passage presents the same problems of meaning and syntax as 1.160–8, there is no need to repeat the analysis. The passage, with lines 925–8 re-punctuated, will now run as follows:

nam dubium non est, animai quin opera sit
sensus hic in nobis, quem cum sopor impedit esse,
tum nobis animam perturbatam esse putandumst
eiectamque foras; non omnem; namque iaceret
aeterno corpus perfusum frigore leti,
quippe ubi nulla latens animai pars remaneret
in membris, cinere ut multa latet obrutus ignis,
unde reconflari sensus per membra repente
posset, ut ex igni caeco consurgere flamma.

For there is no doubt that it is thanks to the soul that this sense exists in us; and when sleep hinders it from being, then we must suppose that the soul is disturbed and cast out abroad: yet not all of it; for then the body would lie bathed in the eternal chill of death, *seeing that in that case* no part of the soul would remain, hidden in the limbs, as fire is hidden when choked beneath much ash, *from which* sense could on a sudden be kindled again throughout the limbs, as flame can rise again from a secret fire.[11]

[11] Bailey's translation (n. 1) modified to incorporate the reinterpretation of 925–8.

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In 925 the *quippe ubi*-clause provides an explanation for the assertion that the body would die if the whole *anima* had departed from it in sleep; *ubi* refers to the suppressed protasis *si omnis anima eiecta esset*, which is to be supplied with *corpus … iaceret* in 923–4, and *unde*, the relative, has as it antecedent *nulla animai pars*.

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AENEID 3. 635–7

et telo lumen terebramus acuto
ingens quod torva solum sub fronte latebat,
Argolici clipei aut Phoebeae lampadis instar

As commentators have long observed, the comparison of the Cyclops' eye to a shield goes back to Callim. *Hymn* 3.52–3,[1] where the point of comparison seems to be the glare that emanates from both the shield and the solitary eye. Commentators on and translators of the Virgilian text justifiably assume that Virgil's comparison of the shield and the sun to Polyphemus' eye points primarily, if not exclusively, to the large size of the giant's eye.[2] *Instar* commonly refers to size and here *ingens* makes that beyond much doubt.[3] Still, more needs to be said.

First, Virgil is here playing off the ancient (but not only ancient) notion that the sun sees, most frequently found in its being dubbed e.g. *πανόπτης*. Occasionally the sun is actually called an 'eye'. Ovid calls the sun *mundi oculus* (*Met*. 4.228) and an Orphic Hymn addresses Helios as *κόσμου τὸ περίδρομον ὄμμα* (8.14). Thus, Virgil inverts the commonplace simile or metaphor. The eye is like the sun, rather than that the sun is like an eye.

Second, to say that Polyphemus' eye was as large as the sun may place Virgil in the middle of an ancient scientific controversy. We know that the sun is some hundred times the size of the earth. Ancient scientists, while debating the sun's exact size, also knew that it was far larger than the earth.[4] Thus, to say that Polyphemus' eye was the size of the sun would not be impressive but rather be ludicrous. Virgil, needless to say, was not trying to be ridiculous. Rather, he was following the Epicurean view, mocked by Cicero at *Fin.* 1.6.20, *Acad.* 2.26.82, that the sun was more or less the size that it appears to be.[5] On such a view, it is impressive but scarcely ridiculous to say that the giant's eye was the size of the sun. Virgil would have known the Epicurean view at the

[1] At least since J.L de la Cerda, *P. Virgilii Maronis Priores Sex Libri Aeneidos* (Leiden, 1612), 368.

[2] Servius (ad 3.637) interestingly thinks that the shield concerns size and the sun glare.

[3] J. Henry is expansive, 'As large, round, and glaring as an Argolic shield, or the sun' (*Aeneidea* [Dublin, 1878] ad 3.631–49, vol. 2, 504). N. Horsfall's recent commentary on *Aeneid* 3 (Leiden, 2006) has nothing of interest to say on these lines.

[4] On ancient views of the size of the sun, see the essay by J. Barnes, *Acta Classica Debrecen.* 25 (1989), 29–41. Thus, Archimedes thought the sun's diameter thirty times that of the earth, Eudoxus nine times, *alii alia*.

[5] On Epicurus' view of the size of the sun, see now R. Bett, 'Sceptic Optics', *Apeiron* 40 (2007), 112–17.

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