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Thomas Keeline

Washington University in St. Louis, tkeeline@wustl.edu

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“Adams’ Law” and the Placement of *esse* in Pliny the Younger

THOMAS J. KEELINE

Abstract: J. N. Adams showed that in Latin of the first century BCE, the verb *esse* does *not* necessarily gravitate to “second position” within a phrase; i.e., its placement is not in line with Jacob Wackernagel’s “law of enclitics.” Instead, *esse* tends to cliticize on—immediately follow—the focus of the phrase. By examining all instances of forms of *esse* in Plin. *Ep.* 1 and 10, I show that Adams’ observation still holds true ca. 100 CE. In a pedagogical epilogue, I offer some thoughts on the implications of such subtleties for the teaching and learning of Latin today.

Keywords: Adams’ Law; Wackernagel’s Law; Pliny the Younger; *esse*; word order; clitics; pedagogy

In 1994 J. N. Adams published a slender book with large implications. Entitled *Wackernagel’s Law and the Placement of the Copula esse in Classical Latin*, the book showed that the verb *esse* did *not* necessarily gravitate to “second position” within a phrase, that is to say, its placement was not in line with Jacob Wackernagel’s “law of enclitics.”¹ Instead, Adams neatly demonstrated that *esse* tended to cliticize on, i.e. immediately follow, the focus of the phrase: *navigatio perdifficilis fuit* (“sailing was very difficult”); *navigatio fuit perdifficilis* (“sailing was very difficult [sc. e.g. but not travel by land]”); *fuit navigatio perdifficilis* (“sailing was, I grant you, very difficult” et sim.).² This remarkable insight, recovering by philological scrutiny a phenomenon once intuitively felt by native speakers of Latin, has the deepest implications for our understanding of what is going in even very simple Latin sentences.³

Adams limited his investigation to “classical Latin” prose, and his examples are drawn mainly from Cato the Elder, Cicero, and Caesar, with occasional excursions into Livy and Celsus. At some point, however, the tendencies that he observed cease to operate. Adams wondered whether the clitic character of *esse* was already weakening in Livy and Celsus.⁴ But by examining the placement of *esse* in Pliny the Younger, I will show that, so far from breaking down already in the Augustan period, Adams’ observations still seem to hold true ca. 100 CE. Such an investigation seems like a fitting tribute to Jacqui Carlon, who combines interests in Pliny the Younger and linguistics and Second Language Acquisition Theory. After demonstrating that “Adams’ Law,” as I will call it, was still valid for Pliny the Younger, I will

¹ Wackernagel’s Law, first formulated in Wackernagel 1892, “is a generalization referring to the tendency of certain enclitics and postpositives to occur second within their clause or sentence” in Indo-European languages (Goldstein 2013). Examples of such postpositive enclitics in Latin include e.g. *autem* and *enim*, and many scholars in the twentieth century thought that unemphatic personal pronouns (*mihi* etc.) and forms of the verb *esse* fit the same pattern. Adams 1994a showed that Wackernagel’s Law did not hold for forms of *esse*, and Adams 1994b showed that it did not hold for unstressed pronouns in Latin either. For more on Wackernagel’s Law in Classical Greek, where it seems much more compelling in its explanatory force, see Goldstein 2017.

² Example from Adams 1994a: 84. Adams in fact argued that *esse* focused the word it leaned on. It seems much more likely that *esse* attaches to a focused word because of some property (prosodic or otherwise) of the focus or the larger clause. But this amounts only to a reframing of Adams’ argument.

³ Adams’ book does not appear to be as widely known as it should be; its only review in a Classics journal was Clackson 1996, and a trawl through citations of Adams 1994a and 1994b on GoogleScholar suggests that they are much more regularly read by linguists than classicists. But that is perhaps changing; see e.g. Pezzini 2015, 246–47 (and elsewhere) and now, above all, Pinkster 2021, 984–93, enshrining these theories in what may become the twenty-first century’s reference grammar for Latin. (For a different approach, at least partially compatible with Adams’ work, see Devine and Stephens 2006, 145–224; cf. further Spevak 2006, 261–72.)

⁴ Adams 1994a, 56–58. By the time of the Romance languages, there is obviously a rule that the copula is simply placed before the predicate (“the sky is blue”: *el cielo es azul, il cielo è blu, le ciel est bleu*).

close with some reflections on the implications of these results for active Latin and language pedagogy: a major goal of language instruction is to create an accurate mental representation of the target language—and yet almost no one speaking or writing Latin today manages to feel or replicate such subtleties.

Methodology

I have cataloged every instance of forms of *esse* in books 1 and 10 of Pliny's *Epistles*. Book 1 consists of Pliny's polished private letters, while book 10 represents the unpolished collected correspondence between Pliny and Trajan.⁵ In book 1 of the *Epistles* I count 188 instances of *esse*; in Book 10 I consider 300 occurrences (Pliny: 194, Trajan: 106).⁶ This corpus is large and diverse enough to allow us to check the status of Adams' Law in some detail in the practice of one author writing a century and a half after Adams' main evidence ends (Pliny), and to compare it with a sort of control (Trajan).

In a sentence with an expressed subject, form of *esse*, and predicate, there are six possible word orders:

1. subject *esse* predicate (*caelum est caeruleum* ["the sky is blue"])
2. subject predicate *esse* (*caelum caeruleum est*)
3. predicate *esse* subject (*caeruleum est caelum*)
4. predicate subject *esse* (*caeruleum caelum est*)
5. *esse* subject predicate (*est caelum caeruleum*)
6. *esse* predicate subject (*est caeruleum caelum*)

Not all sentences involving *esse* can be slotted into one of these categories. Sometimes the subject is omitted (*est caeruleum* or *caeruleum est*), sometimes the predicate is (*quid est caeruleum?* *caelum est* or, less likely, *est caelum*), and sometimes both (*estne caelum caeruleum? est*). Furthermore, some uses of *esse* are either certainly or arguably not copulative; for example, there is the existential use of *esse*, and it is not always straightforward to judge what falls into this category (e.g., should *Ep. 1.22.1 nihil est enim illo grauius sanctius doctius* be understood as "there is nothing weightier or wiser or more venerable than he?"). Trickier still are verbal forms: in the clause *quorum* [sc. *orationes*] *sane plurimae sunt circumcisae et breues* (*Ep. 1.20.4*), because of the parallelism between *circumcisae* and *breues* we can be relatively certain that *circumcisae* is functioning primarily as an adjective ("most of whose [speeches] are of course concise and brief"). On the other hand, in the phrase *ab alio dictum est quod ipse praeuidit* (*Ep. 1.20.13*), it might be more natural to consider *dictum est* as a grammaticalized passive form of the verb *dicere* ("what he himself has seen in advance has been said by someone else"). Betwixt and between are gerundives: what adjectival or verbal force did a Roman perceive in a sentence like *sollicitius custodiendus est honor, in quo etiam beneficium amici tuendum est* ("an honorable office must be diligently looked after when in it the good deed of a friend is likewise to be tended," *Ep. 1.19.4*)?

No typology can be perfect. I have decided simply to include all instances of *esse* in my data set, and to collect the following information for each instance:

1. Citation (e.g. *Plin. Ep. 1.2.3*; Pliny is cited by Roger Mynors' Oxford Classical Text)
2. Latin text (*si modo is sum ego qui excitari possim*, "if in fact I'm the sort of person who can be stirred")
3. Position of *esse* within the phrase: first position, "relative first," second position, last position, or elsewhere. These data on position should be taken as approximate at best, because "second position" resists easy definition.⁷ (Note that I have created a

⁵ I agree with the long-standing *communis opinio* that Pliny did not revise and publish book 10 of his *Epistles* himself, but I should acknowledge that the hypothesis that he did in fact do so is now in vogue. Cf. Gibson and Morello 2012, 259–64 and Woolf 2015 with further references.

⁶ Occurrences of *esse* in quotations in *Ep. 10.58.7–10* have been excluded.

⁷ In the first instance it can be hard to define colon boundaries, and studies tend to indicate that Latin cola are often quite short and rarely longer than 15 or 20 syllables (cf. Fraenkel 1968, Habinek 1985, Nisbet 1990). Even within a colon it is hard to pin down what constitutes "second position"; see in detail Goldstein 2016 on canonical and non-

special category, “relative first,” to describe phrases like *quorum est aemulus* [“whose rival he is,” *Ep.* 1.16.3]: *est* stands first within the relative clause, but might also be counted as “second” following *quorum*.)

4. Order of subject, *esse*, and predicate (or however many elements are present)
5. If relevant, notation of whether *esse* is existential, verbal, or used with a gerund(ive)
6. Miscellaneous notes

All these data have been compiled into a spreadsheet for easy manipulation. It is thus easy to exclude from consideration existential *esse* or verbal forms or the like, and we can also see at a glance certain data about the position of *esse* within a sentence.

The Data

The headline results are pretty clear, and pretty clearly in line with Adams’ observations for Latin in the first century BCE. So, for instance, *esse* does not seem especially attracted to “second position”:

	Pos. 1	Rel. 1	Pos. 2	Misc.	Last	Total
<i>Ep.</i> 1	31	17	42	38	60	188
<i>Ep.</i> 10: Plin.	31	37	33	29	64	194
<i>Ep.</i> 10: Traj.	2	2	6	29	67	106

While “second position” is common, *esse* is in fact most commonly found last in its phrase, and overwhelmingly so in Trajan’s letters.⁸ Indeed, although “second position” is second-most common in Pliny, both first position and other placements are found frequently too. Admittedly these numbers tell only part of the story: for example, when *esse* is found first in its clause, it almost never includes both an expressed subject and an expressed predicate (a sentence like *Ep.* 1.13.5 *erant sane plerique amici*, “of course most of them were my friends,” is rare). And yet these data give us good prima facie reason to reject the hypothesis that the position of *esse* in a sentence is determined by Wackernagel’s Law: this would be a “law” that holds true at most one-third of the time in Pliny’s letters.⁹

Adams found that “subject + predicate + *esse*” was Latin’s most common (and least marked) word order. He provides the following table to report some of his data:¹⁰

canonical second position in Greek. Consider also the case of German, where verbs in main clauses typically come in “second position,” but second position can mean something quite other than “second word”: so the first sentence of the headline article of *Spiegel* online for 12 December 2018: “An dem Blumenladen Au Nom de la rose in der Rue du 22 Novembre gehen an anderen Tagen viele Menschen achtlos vorbei.” So too in German some elements can occupy a “position 0,” like “aber” or “ja”: “Sie war auch im Kino, aber ich habe sie nicht gesehen.” I have considered Latin coordinating conjunctions (e.g. *et*, *nam*, *nec*, *sed*) as occupying position 0, so in the sentence *nec est quod putes me . . . ueniam petere* (*Ep.* 1.2.5), *est* is in first position.

⁸ Admittedly there can be overlap between these two categories in short clauses. In *Ep.* 1 there are no obviously ambiguous instances, but some do occur in *Ep.* 10, where I have tried to deal with them as logically and consistently as possible (so in e.g. *Ep.* 10.39.4 *incompositum enim et sparsum est*, I have counted *est* as in last position because it ends the sentence and seems indisputably final).

⁹ And that is counting all instances of “relative first position” as second position: $(17 + 42 + 37 + 33) / (188 + 194) = 33.77\%$. If we discard “relative first position” entirely, the proportion is even lower: $(42 + 33) / ((188 - 17) + (194 - 37)) = 22.87\%$. Admittedly one might counter that Wackernagel’s Law is not concerned with cases of, say, existential *esse* in first position, but these account for only a very small fraction of the data.

¹⁰ Adams 1994a, 14.

	Cato Agr. 1–50	Cic. <i>S. Rosc.</i> 1–60	Cic. <i>Inv.</i> 1.1–20
S pred. <i>est</i>	68	39	26
S <i>est</i> pred.	5	11	41
pred. S <i>est</i>	10	3	1
pred. <i>est</i> S	2	5	10
<i>est</i> S pred.	1	1	—
<i>est</i> pred. S	—	—	—

	Cic. <i>Red. sen.</i>	Cic. <i>De orat.</i> 3.1–100	Celsus 4.1–10
S pred. <i>est</i>	15	38	52
S <i>est</i> pred.	7	23	4
pred. S <i>est</i>	3	4	9
pred. <i>est</i> S	3	14	12
<i>est</i> S pred.	1	10	—
<i>est</i> pred. S	—	2	—

Adams' results can be compared with the data that I have collected for Plin. *Ep.* 1 and 10, which look like this:

	S pred. <i>est</i>	S <i>est</i> pred.	Pred. S <i>est</i>	Pred. <i>est</i> S	<i>est</i> S Pred.	Pred. <i>est</i> S
<i>Ep.</i> 1	37	26	6	28	10	4
<i>Ep.</i> 10: Plin.	40	24	2	33	15	10
<i>Ep.</i> 10: Traj.	42	6	6	13	2	0

Note in the first instance that Pliny is broadly consistent in his practice in books 1 and 10. A chi-square test comparing Pliny's distribution of these six patterns in *Ep.* 1 and 10 yields $\chi^2 = 5.476$, which, with five degrees of freedom, produces a p-value of about .36058. This is not a statistically significant difference; i.e., it is reasonable to ascribe any observed difference in Pliny's practice in books 1 and 10 to random chance.¹¹

Pooling Pliny's data in *Ep.* 1 and 10, we can also test Pliny's practice against the tendencies of Cicero in *De orat.* 3.1–100 (taken from Adams' data above):

	S pred. <i>est</i>	S <i>est</i> pred.	Pred. S <i>est</i>	Pred. <i>est</i> S	<i>est</i> S Pred.	<i>est</i> Pred. S
Plin. <i>Ep.</i> 1 and 10	77	50	8	61	25	14
Cic. <i>De orat.</i> 3.1–100	38	23	4	14	10	2

¹¹ A discussion of the details of the chi-square test is beyond the scope of this paper. For a brief explanation and an online calculator, see Preacher 2001 (= <<https://www.quantpsy.org/chisq/chisq.htm>>).

Again a chi-square test shows no statistically significant difference ($p \approx .20402$) between Cicero and Pliny.

These data do, however, appear to present at least one Plinian peculiarity. The orders “Pred. *est* S” and “*est* Pred. S” are much more common in Pliny than in any author surveyed by Adams. I cannot immediately explain this except to observe that some of the variation may stem from how I have classified examples. So, for instance, I have considered a sentence like *mirum est ut animus agitatione motuque corporis excitetur* (“it’s amazing how the intellect is stimulated by vigorous action of the body,” *Ep.* 1.6.2) as an example of Pred. (*mirum*) *est* S (*ut animus agitatione motuque corporis excitetur*). Similarly I have counted *nec erit difficile custodire tam paucos* (“nor will it be difficult to watch over such a small number of people,” *Ep.* 10.33.3) as *est* (*erit*) Pred. (*difficile*) S (*custodire tam paucos*). These categorizations might be felt artificial, and with such cases excluded, the total in these columns declines considerably.¹² Nevertheless these instances generally, as we will see in the next section, obey the tendencies that Adams has observed in Pliny’s predecessors. And so, to look just at the numbers, we can say that Adams’ observations hold for Pliny the Younger.

Observations on the Data

But of course we cannot just look at the numbers, and I will now consider these data more closely, choosing my examples primarily from *Ep.* 1. Adams argued that forms of the verb *esse* gravitate to the focus of the sentence, i.e., that their “host”—the immediately preceding word—is focused. The “focus” of a sentence is a new or unexpected or contrasting or somehow important piece of information. Adams offers a useful practical test to identify it, at least in English: “the identification of the focus of an utterance in English may be made from the intonation of that utterance: ‘a focussed constituent contains an intonational center, in German and English, generically a falling pitch accent.’”¹³ So, for example, “I’m painting the living room BLUE” provides a typical case of English “end focus,” but compare also “I AM painting the living room blue” (in response to a “surely you’re not?” question) or “I’m painting the LIVing room blue” (as opposed to the bathroom).¹⁴

Adams’ hypothesis seems to map onto our data quite well. Consider the four instances of the aforementioned Pred. *est* S construction in *Ep.* 1.20:

1. *testes sunt multae multorum orationes et Ciceronis pro Murena pro Vareno* (“the witnesses are many speeches of many orators, especially those of Cicero on behalf of Murena and Varenus,” 1.20.7).
2. *at aliud est actio bona, aliud oratio* (“but it’s one thing to deliver a speech well, another to produce a good written version,” 1.20.9).
3. *uaria sunt hominum iudicia, uariae uoluntates* (“people’s judgments vary; people’s temperaments vary,” 1.20.12).
4. *neque enim minus imperspicua incerta fallacia sunt iudicium ingenia quam tempestatum terrarumque* (“no less obscure and uncertain and deceptive is the character of the jurors than the nature of storms and the soil,” 1.20.17).

In all of these instances, the predicate is strongly focused.¹⁵ In two cases we see contrasting rhetorical terms serve as hosts (*uaria sunt . . . uariae; aliud est . . . aliud*): “It’s ONE THING to deliver a speech well, ANOTHER to produce a good written version.” Such order is completely typical; indeed, *aliud est . . . aliud* has almost fossilized into a fixed phrase.¹⁶ Other examples of this contrastive focus are constantly found in *Ep.* 1, e.g.

5. *quae siue uxoris sunt ut adfirmat, siue ipsius ut negat* (“whether they are his wife’s, as he maintains, or his own, which he denies,” 1.16.6)

¹² I do not know how Adams classified such instances.

¹³ Adams 1994a, 18, quoting von Stechow and Wunderlich 1991, 804. On the focus of a Latin sentence, see further Pinkster 2021, 839–49.

¹⁴ Examples from Adams 1994a, 18–19.

¹⁵ Book 10 offers similar cases, e.g. *confirmat necessarios esse milites sex* (*Ep.* 10.27.1).

¹⁶ On this position of *esse* in rhetorical antitheses see Adams 1994a, 15–18.

Here *siue uxoris . . . siue ipsius* provides provides the contrast. In the other two cases quoted above, the predicate is focused for other purposes, in the first to emphasize the witnesses that Pliny is relying on to make his claim, and in the fourth to point up just how very hard it is to grasp the minds of men.

Many of Adams' specific observations can be paralleled. Deictic or intensifying pronouns, for example, are often focused. Here are some Plinian examples:

6. *tu modo enitere ut tibi ipse sis tanti, quanti uideberis aliis si tibi fueris* ("strive to be of as much value in your own eyes as you will seem to others, if you will be such for yourself," 1.3.5).
7. *hoc sit negotium tuum hoc otium* (with further antithetical repetition) ("let this be the occupation of your business, let this be the occupation of your leisure," 1.3.3)
8. *illum enim esse huius consilii ducem, me comitem decet* (again with antithetical repetition) ("since for him it's right and proper to be the leader of this plan, for me it's right and proper to be the follower," 1.5.10)
9. *haec est adhuc sententia mea* ("this is my opinion thus far," 1.20.24)

Such pronouns often are either focused or have an element of contrast (or both). Sometimes, of course, other factors come into play as well:

10. *interim, <in> iis qui ad me tamquam Christiani deferebantur, hunc sum secutus modum* ("meanwhile, in the case of those who have been reported to me as being Christians, I've followed this procedure," 10.96.2)

Here *hunc* is focused, as Pliny will go on to describe in detail his procedure for dealing with reported Christians. But the word order also neatly yields a double cretic clausula (*hunc sūm sēcūtūs mōdūm*), and at some level prose rhythm too doubtless influenced Pliny's *dispositio*.

Other adjectives also regularly act as hosts for *esse*, especially adjectives of size and quantity and superlatives, which often serve as a phrase's focus. So, for example:

11. *uitae mortisque consilium uel suscipere uel ponere ingentis est animi* (1.22.10)
"To accept or reject the notion of living or dying is the mark of a TRULY GREAT soul."
The verb *est* has intruded right into the middle of the phrase *ingentis animi*, throwing the strongest possible focus on *ingentis*. Similarly:

12. *cum alioqui magna sit exspectatio* ("since moreover great is the anticipation," 10.81.8)
13. *adfirmabatur mihi in omni ciuitate plurimos esse buleutas ex aliis ciuitatibus* ("I am told that in every city very many are the senators with foreign citizenship," 10.114.3)
14. *quorum [sc. orationes] sane plurimae sunt circumcisae et breues* ("most of whose [speeches] are of course concise and brief," 1.22.4)

While such an order is not a fixed law, when it does *not* occur, it is at least tempting to wonder whether other reasons have supervened. Consider, for example:

15. *magna, domine, et ad totam prouinciam pertinens quaestio est de condicione et alimentis eorum, quos uocant θρεπτούς* ("it's a big problem, sir, and one that affects the whole province, this issue concerning the status and maintenance of those known as 'foundlings,'" 10.65.1)

It is actually quite hard to rewrite this sentence with *est* leaning on *magna*. As it stands, there is a poised balance of the two qualifying phrases joined by *et*, with the second carrying more stress both because of sense (not just a "big problem" but "a problem affecting the whole province"!) and rhetorical arrangement (it follows the "law of increasing members" ¹⁷). If Pliny instead had begun *magna est*, he could not easily have written *domine* straightaway, and so he would have been forced into: *magna est quaestio, domine, et ad totam prouinciam pertinens*. This would be a fine response to, say, "What sort of *quaestio* is it?" But it will not do when followed by *de condicione* etc. I am not suggesting that Pliny would have

¹⁷ On "das Gesetz der wachsenden Glieder," see Hofmann and Szantyr 1965, 722–26.

consciously thought through any of these considerations; he doubtless simply placed the words in their most natural positions.

Other factors may account for:

16. *nam et in agris magna copia est hominum et maxima in ciuitate* (“for both in the fields is there a great number of men, and in the city there is the greatest number,” 10.41.2)

There is a lot going on here. We have coordinate *et . . . et* joining logically parallel phrases in chiasmic arrangement (*in agris magna . . . maxima in ciuitate*), with a single verb, *est*, shared ἀπὸ κοινοῦ in both. Nothing would seem to stand in the way of writing *magna est copia*, which also might appear to conform to the tendency of using *esse* to focus contrasting members. But Pliny does still insert *est* in a “disruptive” way, interrupting the unit *magna copia hominum*. Perhaps he did not want to focus *magna*, given that he will continue with the more pointed *maxima*, and so he instead chose to focus *copia* more particularly—it is itself a word denoting quantity—which will then be amplified from *magna* to *maxima*.

Our sample also yields other instances that seem connected to the tendency of *esse* to attach to adjectives of size or quantity, like the phrase *nihil est*. To this can be added the more general observation that *non est* is almost always the standard word order (i.e., *non est factum* or *factum non est*, not *non factum est*).¹⁸ Such negatives naturally carry the focus of the sentence, and they might be thought of as a special case of words of quantity or size—namely, the case where the quantity or size is precisely zero.

Adams likewise makes observations about where *esse* is placed as an auxiliary verb: it is often separated from a participle for the same reasons as we have already seen, namely to focus some other element in the sentence.¹⁹ So e.g.:

17. *quibus [sc. aduocationibus] alioqui numquam eram promiscue functus* (“which [court cases] moreover I had never taken on indiscriminately,” 10.3a.1)

In line with the discussion about negatives above, here the focus is squarely on *numquam* (“never”). Likewise:

18. *quo magis scires, quantum esset ille mihi ego tibi debiturus* (“so that you’d know how great would be the debt that he would owe to me, and I would owe to you,” 1.24.4)

Stress is laid on “how large” the debt will be.

A related phenomenon is seen in:

19. *omissis iocis credo decentes esse seruos, qui sunt empti mihi ex consilio tuo* (“but joking aside, I believe that the slaves who were bought for me on your advice look good,” 1.21.2)

First note that *esse* shows that *decentes* is focused, “I believe that the slaves look good”; there is an implied contrast with what follows, namely “it remains to be seen whether they are honest” (*superest ut frugi sint*). But in the phrase *qui sunt empti*, we see two tendencies coalesce: first, *qui* is focused as referring to these particular slaves, but second, relative pronouns in general are almost invariably focused to some degree and so tend to attract *esse*.²⁰ Consider the following Plinian examples:

20. *pleraque quae sunt agenda rei necessaria, eadem peracta nec utilitatem parem nec gratiam retinent* (“many things which are necessary for accomplishing a task have much less usefulness or pleasantness once the task is done,” 1.8.7)
21. *quae sint inculcanda infigenda repetenda* (“which must be inculcated and fixed and repeated,” 1.20.2)
22. *non posse non bonam actionem esse quae sit bona oratio* (“that a delivered speech can’t be bad if it’s a good written speech,” 1.20.9)

¹⁸ Cf. Adams 1994a, 9–13.

¹⁹ Adams 1994a, 34–43.

²⁰ Adams 1994a, 44–53. As a side note, Greek relative pronouns also often—but not always—serve as hosts for enclitics (Goldstein 2016, 87–88), and so this just might be a feature of the Indo-European proto-language.

23. *tu omnia quae sunt in causa putas exsequenda* (“you think you should follow up on everything which is relevant to a case,” 1.20.14)
24. *effinge aliquid et excude, quod sit perpetuo tuum* (“create and produce something which will always be your own,” 1.3.4)

It is simply very common for *esse* to gravitate toward the relative pronoun as host; our Plinian corpus provides at least 34 examples.

Adams noted this phenomenon and well remarked that it is particularly striking because verb-final position is in general much more common in relative clauses than in main clauses; in other words, the coherence of *esse* with relative pronouns bucks the prevailing trend.²¹ Adams confined his observations primarily to relative pronouns, but the Plinian data suggest that other subordinators may play a similar role. A particularly clear case is that of words introducing (indirect) questions, where the question word naturally carries the focus:

25. *cum quaerem, num esset aliqua lex dicta templo* (“when I inquired whether there was some law pertaining to the temple,” 10.49.2)
26. *interrogavi ipsos an essent Christiani* (“I asked them themselves whether they were Christians,” 10.96.3)
27. *itaque teorum²² uehementer addubitem an sit potius id tempus, quo εισήλασαν, intuendum* (“therefore I’m altogether inclined to think that we should look rather to the date when they entered the city as victors,” 10.118.1)

Further investigation might clarify whether other words introducing subordinate clauses play a similar role.

In all of the foregoing cases, *esse* has been an enclitic, “leaning on” a host word which was the focus of the phrase. But as we have seen in our initial tables, *esse* frequently occurs in first position in a clause too, where it necessarily is itself the focus of an utterance. This often occurs in the phrase *est enim*. So, for example, Pliny writes

28. *est enim plane aliquid edendum* (“For of course I MUST publish something!”) (1.2.6)
29. *“est enim” inquam “mihi cum Cicerone aemulatio* (“I DO,” I say, “have a rivalry with Cicero.”) (1.5.12)
30. *est enim locuples factiosus* (“he IS [indeed] rich and powerful”) (1.5.15)
31. *quamquam huius cunctationis meae causae non tam in scriptis quam in ipsa materiae genere consistunt: est enim paulo quasi gloriosius et elatius* (“although the causes of my hesitation aren’t so much in the writing as in the nature of the material: it IS [admittedly] somewhat boastful and grand”) (1.8.5)
32. *hoc mihi sufficit; est enim maximum* (“that’s enough for me: it IS the most important thing [after all]”) (1.11.2)
33. *decessit Corellius Rufus et quidem sponte, quod dolorem meum exulcerat. est enim luctuosissimum genus mortis* (“Corellius Rufus has died, and died voluntarily, which sharpens my pain: that is the kind of death that causes the most sorrow,” 1.12.1)

These uses vary slightly among themselves. In 29, Regulus had accused Pliny of wanting to rival Cicero. In response, Pliny proudly asserts that Regulus’ accusation is true. This is what Adams terms the “veridical” or “assertive” use of *esse*.²³ Similarly in 28, after he had been talking in the previous sentence about planning to publish a speech, Pliny asserts that he simply MUST publish something. In 31, by contrast, initial *esse* marks a concession: “it is, I grant you, somewhat boastful and grand [sc. to sing one’s own praises].”²⁴ In all of these cases, initial *est* looks back to the preceding statement (as you would expect, given the explanatory *enim*).

There are other cases, however, where *esse* does not look back at all. So, for example, in

²¹ Adams 1994a, 45.

²² The textual corruption is not relevant to the point under discussion, but proposed remedies for *itaque eorum* include e.g. *ita ut* or *ita tamen ut*.

²³ Adams 1994a, 69–81.

²⁴ For concessive *esse* in first position, see Adams 1994a, 77–80.

34. *erant sane plerique amici* (“most of them were of course my friends,” 1.13.5) Pliny refers to the many people who had invited him to literary recitations, which he dutifully attended: “most of them WERE of course [I grant you] my friends.” Fronted *esse* here again marks a concession.

Furthermore, when used existentially, *esse* quite regularly stands first. This is reasonably well known,²⁵ and it seems to apply equally well to datives of possession, which might be thought of as a subspecies of existential *esse* (“there is to me a . . .”):

35. *est illi facies liberalis, multo sanguine multo rubore suffusa, est ingenua totius corporis pulchritudo et quidam senatorius decor* (here with rhetorical repetition) (“he has a noble countenance, ruddy and full-blooded; he has a natural beauty throughout his body and a sort of senatorial bearing,” 1.14.8)
36. *est adhuc curae hominibus fides et officium, sunt qui defunctorum quoque amicos agant* (“people still care about duty and honor; there are those who act the part of friends even for those who have died,” 1.17.1)

Note in the latter example that the phrase *sunt qui* etc. also well exemplifies the typical placement of existential *esse* in first position: “there are those who . . .”

Of course this can all start to look a bit too easy, as if this one key can unlock every door. It cannot. Latin word order is a complex phenomenon, and it is governed by a variety of factors. Consider the following sentence featuring both a dative of possession and a sort of numerical adjective:

37. *frequens mihi disputatio est cum quodam docto homine et perito* (1.20.1)
“I am CONSTANTLY debating with a certain skilled and learned man.” From the foregoing discussion about datives of possession, one might have expected *est* in first position; from the foregoing discussion about numerical adjectives, one might have expected *frequens est*—and we get neither. In fact Adams has also shown that Latin unstressed personal pronouns likewise tend to cliticize on the focus of a phrase,²⁶ and so *mihi* here has attached to the focused *frequens*, which has been fronted to the beginning of the sentence. Perhaps *est* shows that there is some additional stress on *disputatio*, a notion which might be absent if *est* had itself been focused at the front of the sentence. But it is clear that these are not simply mechanical “rules” to be applied without question or exception.

Similarly complicated cases are not uncommon. So e.g.:

38. *est enim sane alia ratio tua, alia mea fuit* (“of course your situation is one thing, mine was something different,” 1.18.6)

Here, with contrasting *alia . . . alia*, one might have expected *est* to attach to that word. But Pliny is in fact making a concession of the type that we saw earlier. His correspondent, Suetonius, had recounted to Pliny a disturbing dream about an upcoming court case. Pliny counters with a pre-trial dream of his own, one that presaged success, and urges Suetonius to find a positive interpretation of his dream too. But towards the end of the letter he says, “I must grant, of course, that your present situation is rather different from what mine was,” hence *est* in its concessive use moves to first position (and is joined, as often, with *sane*; cf. e.g. *Ep.* 1.13.5, quoted above, or 5.6.2). The final *fuit* may show that *mea* is focused, or may be placed in a sort of rhetorical ring composition of “to be” verbs.

I have devoted most of my attention in this paper to analyzing some of the more surprising effects of the placement of *esse*, but I would be remiss not to at least note that *esse* is frequently found in fairly ordinary constructions. And yet even here the sort of analysis we have been doing thus far usually makes sense:

39. *nitebamur nos in parte causae sententia Metti Modesti optimi uiri: is tunc in exilio erat, a Domitiano relegatus* (“in part of our case we were reliant on the opinion of Mettius Modestus, a great man: he was in exile at that time, banished by Domitian,” 1.5.5)

²⁵ See Hoffman and Szantyr 1965, 405; Pinkster 2015, 200; Pinkster 2021: 1015. Cf. existential Gk. ἔστι (as opposed to εἶστι), about which there is admittedly some dispute: see the discussion with references in Probert 2003, 144–46, to which can be added the philosophically inclined Kahn 2009.

²⁶ Adams 1994b.

“He was in exile at that time”: relatively unmarked subject + predicate + *esse*, but Modestus’ exile really is the focus of the sentence, as the appendage *a Domitiano relegatus* helps make clear. Or:

40. *quamquam hoc quoque multum est* (1.21.1)

“Although this too is a lot”: again, subject + predicate + *esse*, but here *esse* furthermore follows, as so often, an adjective of size or quantity. Pliny is joking with his correspondent Paternus about his (Paternus’) good taste: “I have a high opinion of your judgment, not because it’s so great (don’t flatter yourself!) but because you know as much as I do—although this too is a lot”! Pliny’s placement of *est* thus contributes, in an almost imperceptible way, to the joke that he is making.

That “almost imperceptible” is an important qualification. While we can try to recover these effects today by close philological study, and an analysis of the type that I have carried out here can be continued on almost every example in the corpus, Pliny never needed to sit down to think this out consciously. He was a native speaker of Latin, effortlessly deploying the full resources of the language to communicate his desired meaning to an audience of fellow native speakers. He perhaps could not have told you why *ingentis est animi* just felt right, any more than a native speaker of American English today can tell you why we say “CHINESE food” rather than “Chinese FOOD.” Of course it is not “wrong” to say “Chinese FOOD,” but it is unidiomatic in contemporary American English.²⁷ If you are a native speaker of English, can you explain why you might conceivably say fan-FREAKING-tastic but not *fanta-FREAKING-stic? San Di-FREAKING-ego? (Admittedly you might not say “freaking.”) It is a subtle thing, and yet we feel it and form such words “correctly.”²⁸ So too in Latin as spoken by the Romans, the placement of *esse* within a sentence was governed by certain complex but intuitively felt idiomatic considerations.²⁹

Epilogue

Pliny still felt these considerations, but as we have seen, at some point speakers stopped feeling them. You might have noticed that I have said almost nothing about Trajan so far. This is because, as far as I can see, he or his chancery secretaries ignored Adams’ Law and instead preferred the fixed pattern S Pred. *est*, with *esse* tending to come last in the sentence (roughly 63% of the time, or almost double the proportion in Pliny). Did Trajan then have no feel for Adams’ Law? I think this is unlikely. Because Pliny so clearly felt it, contemporary native speakers of Latin—like Trajan—doubtless did too.³⁰ I imagine instead that Trajan’s bland word order is yet another feature of his bureaucratic style, in fact a deliberately (if perversely) cultivated “feature.”³¹

²⁷ Although it was the default American pronunciation in the early 1970s, when Chinese food was still a relative novelty in America: see McWhorter 2016, 185–86. For an accessible introduction to the “backshift,” see McWhorter 2016, 178–93; for a detailed investigation into compound stress assignment in English, see Plag et al. 2008. Note that clitic placement in Latin also must have influenced the prosodic contour of the sentence, but such effects are very difficult to recover today.

²⁸ The explanation appears very complex indeed: see e.g. McCarthy 1982.

²⁹ And in this paper I have of course only begun to talk about such considerations: throughout I have made almost no mention of prose rhythm, for example, although rhythmic considerations played a huge role in determining Pliny’s preferred word orders. So the cretic-trochaic clausula probably has something to do with the word order of *Ep.* 10.65.3 *neque putavi posse me in eo, quod auctoritatem tuam posceret, exemplis esse contentum*. For Plinian prose rhythm see Hofacker 1903; Whitton 2013, 28–32 and Index s.v. “rhythm”; and Keeline and Kirby 2019.

³⁰ It is much less likely that Trajan’s word order represents typical Latin at the time, while Pliny’s is a deliberately cultivated and artificial feature: this is not the kind of thing that you can easily and consistently “fake.”

³¹ There are occasional cracks in the facade, but they are rare, e.g.: *Ep.* 10.34.1 *meminerimus provinciam istam et praecipue eas civitates eius modi factionibus esse vexatas* (for the cretic-trochaic clausula? so too 10.48.2 *esse facturum*), 10.50.1 *potes . . . si loci positio uideatur hoc desiderare, aedem Matris Deum transferre in eam quae est accommodatior* (coherence with relative pronoun), 10.78.3 *fiduciam <eam> diligentiae < tuae > habeo, ut credam te omni ratione id acturum, ne sint obnoxii iniuriis* (coherence with *ne*; cf. *Plin.* 10.104.1 *uereor enim, ne sit immodicum pro omnibus pariter inuocare indulgentiam tuam*). But such instances, the norm in Pliny, are vanishingly rare in Trajan. For Trajan’s bureaucratic style more generally, see Coleman 2012.

So when did Latin speakers simply stop feeling the force of Adams' Law? "Further research is needed." What is abundantly clear is that once speakers stopped feeling these tendencies—whenever that happened—knowledge of them simply disappeared. It was only in 1994 that Adams rediscovered a law that had been in operation for hundreds of years of Latin, and one for which the evidence had always been staring us in the face. Even today, knowing what we know, most of us probably still have a hard time feeling these effects intuitively. For those of us who are interested in language pedagogy and *recentiores auctores* and spoken Latin, this is a relatively small example of a frequently occurring problem. A major goal of language instruction is to create an accurate mental representation of the target language. When people speak Latin today, attention to details like word order is often largely or entirely neglected—and understandably so—in favor of accurate vocabulary and syntax. The same is true for many contemporary Latin novellas and at least some textbooks currently used in Latin classrooms, but even the leading lights of Renaissance Latin suffered from these difficulties. If this is the Latin that our students are hearing and reading, it will shape much of their understanding of the structure of the language. And so, if we want our students (and ourselves) to develop the ability to read Latin with ease and deep understanding both, do we need to pay more attention to subtleties like word order? If so, what should we do?

The answer to the first question is, I think, "yes." There is a large literature on learners' errors in second language acquisition, and the modern tendency has been to see such errors as not only a natural and necessary but sometimes even a positive part of the language learning process.³² But such a view, it seems to me, rests on the idea that students' language usage becomes ever more "correct" as they continue to learn: in brief, that they figure out that they are making mistakes and stop making them; that they come ever closer to a correct mental representation of the language in question. This doubtless holds true for much of Latin language acquisition too: *ille est laborans*, an initially laudable attempt at using the resources of the language with a "transfer error," is replaced by *ille laborat* as a student's understanding grows. But when it comes to subtleties like word order, it is not clear to me that students will ever intuit their way to something like Adams' Law. Scholars, after all, who were working very hard to find such things, could not do so for more than a millennium. Indeed, they even came up with an inaccurate description of the placement of *esse* in the form of Wackernagel's Law—which itself had gone undiscovered, or at any rate unformulated, for millennia.

Today there is no community of native speakers of Latin whose intuitions we can rely on to correct linguistic misapprehensions. And we have a devil of a time trying to figure out Rumsfeldian "unknown unknowns." While a student at Cambridge in the late eighteenth century, the young Richard Porson sent up a prize-winning poem in Greek iambs in which he thrice violated Porson's Law—which of course he had not yet discovered, but that is precisely the point.³³ You are not very likely to discover a metrical law by verse composition, or a law about the placement of *esse* by speaking Latin.³⁴ It must either become unconsciously ingrained in your linguistic competence through a sufficient quantity of correctly formed comprehensible input, or be explicitly pointed out to you and then reinforced through sufficient practice so that it becomes unconscious and "natural."

³² Much of this literature focuses on the question of whether or not it is useful for teachers to correct learners' natural and inevitable mistakes, and if so, how best to do it: see e.g. the fundamental Krashen 1982, 116–19. The issue is far from settled, as documented by Karim and Nassaji 2019 (written corrective feedback) and Ellis 2017 (oral corrective feedback). To see why errors can sometimes be a good thing, consider young children who had been saying "went" but start saying "goed" instead: this shows that they have internalized the English rule for forming past tenses in -ed, which in fact represents progress, even if they have overgeneralized the rule.

³³ He was competing for the Craven University Scholarship, which he won. His seventeen verses were also devoid of accents. For the story, see e.g. Jebb 1896, 155.

³⁴ Sensible remarks in Brink 1985, 127–28, including a quotation from A. E. Housman's Cambridge Inaugural: "you are not likely to discover laws of metre by composing verses in which you occasionally break those laws because you have not yet discovered them" (Housman 1969, 18). Indeed, composition and speaking will only reinforce existing patterns and habits, which is all the more reason to try to make sure that they are correct!

Perhaps such subtleties are of little consequence. They certainly are not the most important part of language acquisition. But they do make a difference if we want to come as close as we can to reading and understanding ancient Latin literature the way the Romans themselves might have. Here is one last example: as I have mentioned, Adams also showed that unemphatic pronouns in Latin tend to cliticize on focused elements.³⁵ In that light, consider Cicero writing to Atticus on the brink of civil war (*Att.* 7.3.10):

sed quoniam grammaticus es, si hoc mihi ζήτημα persolueris, magna me molestia liberaris.

But since you are a grammarian [sc. these days], if you resolve THIS difficulty for me, you will relieve me of a GREAT annoyance.

Cicero had just reported how Atticus had upbraided him for a specimen of errant Latinity, hence the reference to a *grammaticus* and the joke about a ζήτημα (a literary “problem” to be solved), but Cicero’s present difficulty is no joke. Caesar and his agent Balbus are trying hard to win him for the Caesarian faction, and although Cicero wants to resist, he is in their debt and does not know whether he can. The unstressed pronoun *mihi* thus cliticizes on focused *hoc*: “if you can solve THIS difficulty [sc. as opposed to that grammatical triviality that we had been discussing].” Similarly, in *magna me molestia*, *me* naturally cliticizes on a focused adjective of size. If readers miss these usages, they really are missing something: if they think that Wackernagel’s Law has just dropped pronouns into “second position,” then they know just enough to get themselves into trouble; if they think the word order is completely arbitrary, then they will be left wondering why in the world Cicero split up his adjectives and nouns with a random pronoun. They might come away with the pernicious belief that Latin word order is capricious and a completely unfathomable mystery. They will certainly get only a fraction of the linguistic information that Cicero is communicating.

Now we do not want our students tearing their hair out about Latin word order when they are just learning how to express themselves and taking baby steps towards reading. What we want instead is to provide good models for them that will help form an accurate mental representation of the language. Latin is not some pristine marble statue placed high on an untouchable pedestal, something that we will befoul if we handle it with our grubby little paws: as students and teachers we do not need to be afraid to make mistakes, particularly in the classroom and in everyday conversations. But anyone who puts out a podcast or writes a Latin novella or textbook becomes, like it or not, a model to anyone who listens and reads. People read textbooks again and again and again. And so I suggest that those of us who have the temerity to do such things—*de me nunc loquor!*—try to give real attention to as many of these issues as possible.³⁶

We do not want to be like the unfortunate Pedro Carolino, who in 1855 published *The New Guide of the Conversation, in Portuguese and English*, often known by the title it was reprinted under in England, *English As She Is Spoke*. The book is remembered today only as a source of unintentional humor: the author’s entire knowledge of the English language appears to have been derived from books and dictionaries, leading him to write such dialogic masterpieces as the following (“The fishing”):

A: That pond it seems me many multiplied of fishes. Let us amuse rather to the fishing.

B: I do like it too much.

A: Here, there is a wand and some hooks.

B: Silence! there is a superb perch! Give me quick the rod, Ah! there is, it is a lamprey.

³⁵ Adams 1994b, not including this example.

³⁶ And some certainly do: Daniel Pettersson and Amelie Rosengren, for example, put enormous energy into the Latinity of *Pugio Bruti*, their recent novella.

A: You mistake you, it is a frog! dip again it in the water.

B: Perhaps i will do best to fish with the leap.

A: Try it! I desire that you may be more happy and more skilful who ascertain fisher, what have fished all day without to can take nothing.³⁷

You may well laugh, but we are non-native speakers of Latin who have learned the language from books and dictionaries. I think we probably do better than Carolino, but his accidental satire can hit pretty close to home for contemporary Latinists. Even very skilled speakers and writers of Latin today say things that would have raised eyebrows and smiles in antiquity: how often do you hear or read *quoque* placed before the word it emphasizes in contemporary Latin? How many of us routinely say *bene* where in English we use “well” as a transition or a pragmatic marker? (A: “He got here in less than 10 minutes!” B: “Well, he’s a fast runner.”) So the word is used in modern Italian, but it seems much harder to find examples in classical Latin. This is a list that could be extended *sine fine*. The point here is not to carp or to harp on small inconcinities (glass houses, stones, etc.): the point is that if these add up, we are writing *Latin As She is Spoke*, and this should give us pause.

Now we will never be perfect, and we labor under peculiar disadvantages relative to every language with a population of native speakers. Furthermore, somewhere down this road madness lies: few of us would want to be the Renaissance Ciceronians mocked with such scathing brilliance by Erasmus, who not only restrict themselves to words found in Cicero, but perhaps even to forms of words found in his extant corpus—“oh, Cicero never uses such and such a verb in the second-person plural”!³⁸ Perfect is clearly the enemy of good here, and there must be some kind of *aurea mediocritas*. But if for centuries the tendency was to censure even the slightest deviation from “pure” and “classical” usage, I wonder whether the reactionary pendulum has now swung too far in the other direction.

Regardless, those of us who put ourselves forward as models of Latinity—whether intentionally or unintentionally—should be aware of these kinds of issues and do our best to grapple with them. And we all should remember that the only real models for classical Latin are the ancient authors themselves. Just as Alessandro Manzoni, author of the nineteenth-century Italian novel *I Promessi Sposi*, betook himself to Florence “a sciacquare i panni in Arno”—i.e., to purify his language and make sure it conformed to Tuscan literary standards—we too must constantly return to the wellsprings of Latinity, to texts written by native speakers of Latin. We ourselves cannot ever become native speakers, but we can inch ever closer, improving both our own abilities and allowing us to be better models for those whom we teach. If a primary goal of learning Latin is to read ancient texts with greater ease, pleasure, and understanding, then we should try as hard as we can to model accurate Latin for ourselves and our students, including the “little” details: they matter.³⁹

Washington University in St. Louis
tkceline@wustl.edu

³⁷ Carolino 1855, 120. Everything *sic*.

³⁸ See Erasmus, *Dialogus Ciceronianus*, esp. pp. 607–16 in Mesnard 1971. So e.g. p. 610: “*Amo, amas, amat, sit enim hoc exempli causa dictum, apud Ciceronem inuenio: amamus et amatis fortasse non inuenio. Item amabam inuenio, amabatis non inuenio. Rursus amaueras inuenio, amaras non inuenio. Contra amasti reperio, amauisti ne quaquam . . .*”

³⁹ I thank the editors, Peter Barrios-Lech and Anne Mahoney, for piloting this volume from idea to completion and for helpful comments on my paper; I am also grateful to the anonymous reader for further helpful comments. Ever since we met at the Conuenticulum Bostoniense, Jacqui Carlon has taught me much about teaching and about navigating the academic world. She has given unstintingly of her time and wisdom, and I am happy to finally give her something in return—although I have to admit that a paper on clitic position in Latin is a pretty poor repayment for her generosity.

Works Cited

- Adams, J. N. 1994a. *Wackernagel's Law and the Placement of the Copula esse in Classical Latin*. Cambridge: Cambridge Philological Society.
- . 1994b. "Wackernagel's Law and the Placement of Unstressed Pronouns in Classical Latin." *Transactions of the Philological Society* 92: 103–78.
<https://doi.org/10.1111/j.1467-968X.1994.tb00430.x>.
- Brink, C. O. 1985. *English Classical Scholarship: Historical Reflections on Bentley, Porson and Housman*. Cambridge: J. Clark.
- Carolino, P. 1855. *O Novo Guia da Conversação, em Português e Inglês, em Duas Partes. The New Guide of the Conversation, in Portuguese and English, in Two Parts*. Paris: V^a J.-P. Aillaud, Monlon e C^a.
- Clackson, J. 1996. Rev. of Adams 1994a. *Classical Review* 46: 378.
<https://doi.org/10.1093/cr/46.2.378>.
- Coleman, K. M. 2012. "Bureaucratic Language in the Correspondence between Pliny and Trajan." *Transactions of the American Philological Association* 142: 189–238.
<https://doi.org/10.1353/apa.2012.0013>.
- Devine, A. M., and L. D. Stephens. 2006. *Latin Word Order: Structured Meaning and Information*. Oxford: Oxford University Press.
<https://doi.org/10.1093/acprof:oso/9780195181685.001.0001>.
- Ellis, R. 2017. "Oral Corrective Feedback in L2 Classrooms: What We Know so Far." In *Corrective Feedback in Second Language Teaching and Learning: Research, Theory, Applications, Implications*, edited by H. Nassaji and E. Kartchava, 3–18. Milton: Routledge. <https://doi.org/10.4324/9781315621432-2>.
- Fraenkel, E. 1968. *Leseproben aus Reden Ciceros und Catos*. Rome: Edizioni di Storia e Letteratura.
- Gibson, R. K., and R. Morello. 2012. *Reading the Letters of Pliny the Younger: An Introduction*. Cambridge: Cambridge University Press.
<https://doi.org/10.1017/CBO9781139024747>.
- Goldstein, D. M. 2013. "Wackernagel's Law I." In *Encyclopedia of Ancient Greek Language and Linguistics*, edited by G. K. Giannakis. Leiden: Brill.
http://dx.doi.org/10.1163/2214-448X_eagll_COM_00000375
- . 2016. "Variation versus Change: Clausal Clitics between Homer and Herodotus." *Indo-European Linguistics* 4: 53–97.
<https://doi.org/10.1163/22125892-00401006>.
- . 2017. *Classical Greek Syntax: Wackernagel's Law in Herodotus*. Leiden: Brill.
- Habinek, T. 1985. *The Colometry of Latin Prose*. Berkeley: University of California Press.
- Hofacker, C. 1903. *De clausulis C. Caecili Plini Secundi*. Bonn: K. George.
- Hofmann, J. B. and A. Szantyr. 1965. *Lateinische Syntax und Stylistik*. Munich: C. Beck.
- Housman, A. E. (edited by J. Carter). 1969. *The Confines of Criticism: The Cambridge Inaugural, 1911*. Cambridge: Cambridge University Press.
- Jebb, R. C. 1896. "Porson, Richard (1759–1808)." In *Dictionary of National Biography*, vol. 46., edited by S. Lee, 154–63. London: Smith, Elder, & Co.
- Kahn, C. H. 2009. *Essays on Being*. Oxford: Oxford University Press.
- Karim, K., and H. Nassaji. 2019. "The Effects of Written Corrective Feedback: A Critical Synthesis of Past and Present Research." *Instructed Second Language Acquisition* 3: 28–52. <https://doi.org/10.1558/isla.37949>.
- Keeline, T. J., and J. T. Kirby. 2019. "Auceps syllabarum: A Digital Analysis of Latin Prose Rhythm." *Journal of Roman Studies* 109: 161–204.
<https://doi.org/10.1017/S0075435819000881>.
- Krashen, S. D. 1982. *Principles and Practice in Second Language Acquisition*. Oxford: Pergamon.
- McCarthy, J. J. 1982. "Prosodic Structure and Expletive Infixation." *Language* 58: 574–90.
<https://doi.org/10.2307/413849>.

- McWhorter, J. 2016. *Words on the Move*. New York: Henry Holt and Co.
- Mesnard, P. 1971. *Erasmus: Dialogus Ciceronianus*. In *Opera omnia Desiderii Erasmi Roterodami ordinis primi tomus secundus*, edited by J. H. Waszink, L.-E. Halkin, C. Reedijk, and C. M. Bruhl, 581–710. Amsterdam: North-Holland Publishing Company.
- Nisbet, R. G. M. 1990. “Cola and Clausulae in Cicero’s Speeches.” In *Owls to Athens: Essays on Classical Subjects Presented to Sir Kenneth Dover*, edited by E. M. Craik, 349–59. Oxford: Clarendon Press. (Reprinted in R. G. M. Nisbet (S. J. Harrison, ed.), *Collected Papers on Latin Literature*, edited by S. J. Harrison, 312–24. Oxford: Oxford University Press.)
- Pezzini, G. 2015. *Terence and the Verb ‘To Be’ in Latin*. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780198736240.001.0001>.
- Pinkster, H. 2015. *The Oxford Latin Syntax: Volume 1. The Simple Clause*. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199283613.003.0001>.
- . 2021. *The Oxford Latin Syntax: Volume 2. The Complex Sentence and Discourse*. Oxford: Oxford University Press. <https://doi.org/10.1093/oso/9780199230563.001.0001>
- Plag, I., G. Kunter, S. Lappe, and M. Braun. 2008. “The Role of Semantics, Argument Structure, and Lexicalization in Compound Stress Assignment in English,” *Language* 84: 760–94. <https://doi.org/10.1353/lan.0.0072>.
- Preacher, K. J. 2001. “Calculation for the Chi-Square Test: An Interactive Calculation Tool for Chi-Square Tests of Goodness of Fit and Independence.”
- Probert, P. 2003. *A New Short Guide to the Accentuation of Ancient Greek*. London: Bristol Classical Press.
- Spevak, O. 2006. “Les enclitiques en latin.” *Indogermanische Forschungen* 111: 249–74. <https://doi.org/10.1515/9783110186505.249>.
- von Stechow, A., and D. Wunderlich. 1991. *Semantik: ein internationales Handbuch der zeitgenössischen Forschung*. Berlin: De Gruyter. <https://doi.org/10.1515/9783110126969>.
- Wackernagel, J. 1892. “Über ein Gesetz der indo-germanischen Wortstellung.” *Indogermanische Forschungen* 1: 333–436. <https://doi.org/10.1515/9783110242430.333>.
- Whitton, C. 2013. *Pliny: Epistles Book II*. Cambridge: Cambridge University Press.
- Woolf, G. 2015. “Pliny/Trajan and the Poetics of Empire.” *Classical Philology* 110: 132–51. <https://doi.org/10.1086/680669>.