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ABSTRACT

In this contribution we propose that the meaning of *ne...quidem* can be derived compositionally from the meaning of its parts, but that this requires reconsidering some hitherto unexplained uses of bare (positive) *quidem*. In turn, this reconsideration uncovers an important diachronic correlation between some positive uses and the negative ones.

Keywords: polarity, contrast, scalarity, common ground management

1. Introduction

The aim of this paper is to propose a unified account of bare[1] *quidem* and the complex expression *ne...quidem*, a unification which until present has always proven elusive. Concretely, we argue that despite its apparent opacity, the meaning of *ne...quidem* can be derived compositionally from the meaning of its parts. To arrive at such an analysis we will give up the idea that bare *quidem* corresponds to one single lexical entry. Specifically, we propose that an older QUIDEM1, which expresses a type of presuppositional positive polarity, needs to be distinguished from an innovative lexical item QUIDEM2, which differs minimally from its older counterpart in that it has an additional meaning component of scalarity. It is this last variant which occurs in the discontinuous expression *ne...quidem* when the latter means 'not even'. We support this analysis by means of corpus data, which suggest a hitherto unobserved diachronic correlation between the incidence of scalar bare *quidem* (QUIDEM2) and of *ne...quidem*.

The discussion is organized as follows. Section 2 contains a brief overview of earlier treatments of *quidem*, pointing out their strengths and weaknesses. We then argue that given that the distribution of positive *quidem* in a number of syntactic environments does not remain stable over time, a strictly monosemic account is ultimately not tenable. In Section 3 we turn to the diachrony of *ne...quidem*, revisiting an observation which goes back to at least Grossmann (1884). Section 4 is devoted to the semantics of *ne...quidem*, with particular reference to the most productive usage of this expression, namely the scalar use which in English can be rendered as 'not even'. In Section 5 we propose that it is precisely this scalar component which is the key common denominator of bare QUIDEM2 and *ne...quidem*. Section 6 is a brief conclusion.

2. *Quidem* in positive contexts

2.1 Basic use of *quidem*

As a starting point we take the analysis of bare *quidem* developed in Danckaert (2014, 2015), which differs from earlier treatments of the same particle in a number of respects. First, in contrast with the oldest studies on the topic (Grossmann 1880; Ludewig 1891), but in line with Solodow (1978) and Kroon (2005, 2011), Danckaert (2014, 2015) offers a monosemic account of *quidem*.[2] Such a parsimonious approach is deemed more explanatory than one that postulates different types of *quidem*

[1] Throughout this paper the expression 'bare *quidem*' refers to all usages of *quidem* different from *ne...quidem*, but it is important to bear in mind that we do not assume those usages to constitute a homogeneous class.
[2] Note however that in his monosemic analysis of *quidem*, Danckaert (2014: 125) explicitly left aside *ne...quidem*.

depending on the environment in which the particle occurs.[3] Second, we take it that regardless of word order, *quidem* always targets a whole proposition, and that it never induces constituent focus. For reasons of space, we cannot here revisit the arguments that support this idea, and we refer to Danckaert (2014: 107-119) for full discussion. Third, we adopt the idea that the particle's main function is one of common ground management: specifically, *quidem* flags its host proposition as (already) belonging to the common ground. This proposition is presented as uncontroversial and not up for discussion: it is asserted, but not at issue. Danckaert (2015: 121) proposes the following lexical entry for *quidem*:

(1) The expression "QUIDEM (p)", where p is a proposition,
   a. asserts that p is true and
   b. conventionally implies that the content of p is hearer-old or deactivated discourse-old information.

The notions of 'hearer-old' and 'discourse-old' were introduced by Birner & Ward (1998), who build on the seminal work of Prince (1981). The authors argue that the class of 'old information' is not a monolithic one, but rather that a fine-grained typology of old information needs to be assumed. In the case at hand, the class of hearer-old or deactivated discourse-old information refers to all knowledge which the speaker can reasonably take to be part of the common ground, without this information having been mentioned explicitly in the immediately preceding discourse. For example, some pieces of information can be inferred from propositions that have been evoked explicitly, whereas others are contextually salient in a given discourse situation (e.g. part of the physical surroundings), or part of the cultural knowledge or ideological background of a given discourse participant: such propositions can be accommodated into the common ground by virtue of their uncontroversial nature.

To illustrate how the proposal in (1) works, consider the examples in (2) to (4). In (2) Sosia addresses Alcumena, right after Amphitruo has left the stage: *quidem* accompanies a piece of information which is known without having been evoked explicitly, because it is plain for both discourse participants (as well as for the audience) to see that there are only two people on stage (cases where the possibility of direct visual or auditory perception justifies insertion of *quidem* are for obvious reasons not rare in the Republican comedies). In (3), *quidem* modifies a proposition expressing general cultural knowledge: Pliny can safely assume that many of his (contemporary) readers are familiar with the fact that augurs fulfil an important role in Roman public life. Finally, in (4) *quidem* co-occurs with the parenthetical *ut scitis*, which spells out explicitly the conventional implicature that the relevant message is, for all the speaker knows, already known to the addressee. As it happens, *quidem* in fact readily co-occurs with such parentheticals (Danckaert 2015: 122-126), as well as with markers of epistemic modality like *necessario*, *haud dubie*, *sane*, *certe* and *profecto*, which express that the content of a given assertion is in some sense obvious (Danckaert 2014: 120-121).

(2) Nunc <u>quidem</u> praeter nos nemost: dic mihi uerum serio,
   Ecquis alius Sosia intust, qui mei[s] similis siet?
   "Now there is nobody except us. Now tell me seriously, is there some other Sosia inside, who looks just like me?" (Plaut. *Amph*. 855-856)

(3) Auguria <u>quidem</u> artem fecere apud Romanos et sacerdotum collegium uel maxime sollemne.
   "Taking auguries was made into an art among the Romans, and they created a most respectable college of priests." (Plin. *nat*. 8.103)

(4) Nuper <u>quidem</u>, **ut scitis**, me ad regiam paene confecit.

[3] Compare the six 'flavors' of *quidem* (restrictive, explanatory, concessive, continuative, affirmative and adversative) distinguished by Grossmann (1880: 22).

"Recently, as you know, it almost caused my destruction, near the King's House." (Cic. *Mil*. 37)

As has long been noted, one particularly productive collocation pattern involves *quidem* and a marker of (counterexpectational) contrastivity (such as *sed* in (5) and *tamen* in (6)). The productivity of such examples led Solodow (1978: 13, 95) to propose that the basic meaning is in fact one of contrastivity.

(5) pecunia utinam ad Opis maneret! cruenta illa quidem, **sed** his temporibus, quoniam eis quorum est non redditur, necessaria.
"If only the money had stayed in the temple of Ops. It is indeed stained with blood, but in these times it is really needed, since it is not returned to its owners." (Cic. *Phil*. 1.17.7)

(6) mors inter illa est, quae mala quidem non sunt, **tamen** habent mali speciem.
"Death belongs to that category of things which are not evil, but still look as if they were evil." (Sen. *epist*. 82.15)

Note that cases like (5) and (6) are not at odds with Danckaert's (2015) definition of *quidem*. In fact, as will be detailed in Section 5, the first of two contrastively coordinated units is typically presented as backgrounded, and, because of its uncontroversial nature, less noteworthy than the second unit. For example, the relative clause in (6) expresses one of the central tenets of Stoic philosophy, viz. the idea that death is not inherently a negative thing: in the context of Seneca's philosophical writings, this message is of course hardly unexpected. Though there may be important communicative reasons to explicitly utter a relatively uncontroversial statement, updating the common ground is never the purpose of such an act. In sum, we have at this point no reason to assume that contrastivity is an inherent meaning component of *quidem*. However, our monosemic approach does not predict that the relative frequency of *quidem* in contrastive environments should change over time, which is instead what we observe in the data.

2.2 A diachronic observation

To document the incidence of contrastive and non-contrastive (bare) *quidem*, we conducted a corpus study based on nine text samples from Early and Classical Latin, which are listed in Table 1 below.[4] Spreadsheets with the complete annotated datasets and R-code used to generate tables, graph and statistical tests to be presented in this paper are available at <https://doi.org/10.18710/ZDEEQV> (for all data analysis we used R 3.6.3, cf. R Core Team 2016). In annotating the data, we classified as 'contrastive' all cases in which *quidem* appears in one of two contrastively juxtaposed text units, which may correspond to two phrasal constituents, two sentences, or two discourse units larger than a single sentence (as in (10)). In all but two of our examples, 'juxtaposition' involves coordination rather than subordination (the two tokens in our corpus feature the subordinators *cum* and *etsi*). Moreover, in most cases (377/394) *quidem* occurs in the first of the two conjuncts.

We took into account both syndetic and asyndetic conjunction. Concerning the former category, the contrastive connectives in our corpus are *at*, *atqui*, *autem*, *ceterum*, *enimuero*, *inuicem*, *nihilominus*, *sed*, *tamen*, *uero*, *uerum*, and various combinations of the above (compare Solodow 1978: 31-33); in one case coordination is marked by *et* (7). (8) is an example of purely asyndetic, but interpretively contrastive coordination with *quidem*. Very many cases in our corpus, with or without an overt marker of contrastivity, feature a pair of what can informally be described as contrastive topics (cf. *quondam* vs. *nunc* in (7); *circa Classicum* vs. *circa Hispanum et Probum* in (8)).

(7) dein [...] Cercei, quondam insula inmenso quidem mari circumdata, ut creditur Homero, **et** nunc planitie.

[4] All our examples are taken from the Brepols-repository (www.brepolis.net). English translations closely follow those of the Loeb Classical Library, but are occasionally adapted if needed for clarity.

"And then there is Cercei, once an island surrounded by an immense see, if we are to believe Homer, and now by a plain." (Plin. *nat.* 3.57)

(8) et **circa Classicum** quidem breuis et expeditus labor. sua manu reliquerat scriptum, quid ex quaque re, quid ex quaque causa accepisset; miserat etiam epistulas Romam ad amiculam quandam iactantes et gloriosas his quidem uerbis: 'io io, liber ad te uenio; iam sestertium quadragiens redegi parte uendita Baeticorum'. **Circa Hispanum et Probum** multum sudoris.
"We could make quick and easy work of Classicus. He had left records written in his own hand about what he had received out of each business deal and lawsuit. He had also written letters to his girlfriend in Rome, bragging and triumphant: 'Hurray, I come to you as a free man; I made four million by selling part of the properties of the people of Baetis.' In contrast, Hispanus and Probus made us sweat." (Plin. *epist*. 3.9.12)

The frequencies we observed are summarized in Table 1. We clearly see that 'contrastive *quidem*'[5] only becomes productive from Cicero onwards, being very poorly represented in both Plautus and Terence, where we almost exclusively find the 'stand-alone' usage of the particle.

Author	**Date**	**# of bare *quidem***	**# of contrastive *quidem***	**% of contrastive *quidem***
Plautus (*Amphitruo*, *Asinaria*, *Aulularia*, *Captiui*)	-200	107	3	2,80%
Terence (*opera omnia*)	-165	99	4	4,04%
Cicero (*In Verrem*, *Philippicae*)	-60	140	38	27,14%
Livy (*Ab Urbe condita* 1-24)	5	105	59	56,19%
Celsus (*De medicina* 1-4)	30	104	75	72,12%
Seneca (*Ad Lucilium* 1-89)	50	104	52	50,00%
Pliny the Elder (*Nat. Hist.* 1-8)	79	109	32	29,36%
Pliny the Younger (*opera omnia*)	100	113	52	46,02%
Tacitus (*opera omnia*)	110	103	79	76,70%

Table 1: Frequencies of plain *quidem* and contrastive *quidem*.

Since our Early Latin corpus is made up exclusively of the comedies of Plautus and Terence, and because this genre is not represented in any of our later texts, it is necessary to evaluate whether the factor 'literary genre' plays a role in bringing about the contrast between the first two and the last seven samples in our corpus. In particular, as suggested by a reviewer, the differing frequencies could be due to the fact that comedies generally are "less argumentative", and thus contain less contrastive constructions, and by that token less potential host environments for contrastive *quidem*. If so, it may be the case that the low frequencies of contrastive *quidem* in Plautus and Terence are not indicative of an ongoing process of language change, but rather an artefact of the relevant texts belonging to a different literary genre than all later texts.

One indication that the comedies are in fact in no obvious sense "less argumentative" than the other genres represented in our corpus resides in the observation that on the whole, the average frequency of contrastive conjunctions in the comedies is not significantly lower than in the other texts. To see how the logic of this argument goes, let us first have a look at the most frequently occurring collocation patterns involving bare *quidem* and a contrastive particle. As can be deduced from Table 1, we counted a total of 394 cases of contrastive *quidem*. Setting aside 65 cases of

[5] In what follows we will informally use the phrase 'contrastive *quidem*' to refer to those instances of bare *quidem* which occur in a contrastive environment (as defined in the main text), but as we will clarify in Section 5, we do not take contrastivity to ever be part of the lexical entry of *quidem*.

asyndetic contrastive coordination (i.e. cases without explicit conjunction or particle signaling contrastivity), these include 131 collocations of *quidem* with *sed*, 70 with *tamen*, a further 24 with *sed* and *tamen* combined, 42 with *uero*, and 31 with *autem*. Together, the co-occurrences of *quidem* with *sed*, *tamen*, *uero* and *autem* account for 75,63% of all our tokens of contrastive *quidem* (298/394). Next, we turn to the overall frequencies of contrastive conjunctions, irrespective of whether they co-occur with *quidem*: Table 2 gives an overview of the total (absolute) frequencies of the elements *sed* (*set*), *tamen* and *autem* in the same texts we analysed earlier (but note that this time we always looked at the entire texts, not at samples). For practical reasons, we do not provide data for the particle *uero*, which would have to be manually distinguished from homophonous flectional forms of the adjective *uerus*. In the last column, we quantify the relative frequency of the three markers of contrastivity under investigation, by calculating how often the three of them combined appear on average per 10000 words; the abbreviation 'CM' stands for 'contrast marker'.

	Token count				Total N	Average frequency
Author	***sed***	***tamen***	***autem***	**Total**	**of words**	**of CMs**
Plautus (*opera omnia*)	786	165	136	1087	165607	65,64
Terence (*opera omnia*)	237	58	58	353	49939	70,69
Cicero (*In Verrem*, *Philippicae*)	842	416	236	1494	154587	96,64
Livy (*Ab Urbe condita*)	1619	674	246	2539	514371	49,36
Celsus (*De medicina*)	591	363	452	1406	104017	135,17
Seneca (*Ad Lucilium*)	938	195	331	1464	119885	122,12
Pliny the Elder (*Nat. Hist.*)	1352	490	987	2829	403202	70,16
Pliny the Younger (*opera omnia*)	547	362	90	999	85073	117,43
Tacitus (*opera omnia*)	912	257	28	1197	165345	72,39

Table 2: Frequencies of *sed*, *tamen* and *autem*.

First, these data tell us that although the texts of Plautus and Terence certainly do not display the highest rates of *sed*, *tamen* and *autem*, the relevant items are overall well represented in these texts, more frequently than in Livy, and at rates comparable to those we find in Pliny the Elder and Tacitus. Statistical testing confirms that there is no genre bias to the effect that contrast markers should be significantly less frequent in comedies than in all other genres in our corpus. Technically speaking, in a mixed effects logistic regression modeling the likelihood for any word in a random selection of 10000 words from each author to be either *sed*, *tandem* or *autem*, or alternatively any other word, the addition of the predictor 'literary genre' (operationalized as a binary contrast between comedies and non-comedies[6]) to a simpler model which only contains the individual authors as a random effect is not significant at the .05 level ($p = .2575$). Simply put, this indicates that the factor 'literary genre' (comedies vs. all other genres) is not significantly correlated with the average frequency of contrast markers in the individual authors.

Importantly, when we run the same type of analysis on the data summarized in Table 1, by modeling the probability for a given token of bare *quidem* to be used in a contrastive environment, we find that Plautus and Terence together do in fact behave differently from all other authors considered jointly, as the addition of the fixed effect of 'literary genre' significantly improves the baseline model without this predictor ($p = .0001592$). However, having established that in the comedies there is no principled shortage of potential host sites for contrastive *quidem* (cf. the results of the previous analysis concerning the distribution of contrastive particles across genres), it would

[6] Note that for present purposes, this – clearly very crude – binary distinction is indeed the one we need to make, as we want to understand why Plautus and Terence behave differently from *all* other (later) authors (not just from some of them). In other words, we should not further characterize the literary genre of the texts displaying higher rates of contrastive *quidem*, for example by qualifying Livy and Tacitus as historiographers, and Celsus and Pliny the Elder as technical writers, and so on.

be misguided to interpret this result as a genre effect rather than a diachronic one. Put differently, despite both *quidem* and contrast markers being ubiquitous in the comedies, these two elements do not seek each other's company (which they do in later texts, at variable but always considerable rates). More generally, the figures in Table 2 suggest that whether or not a given text contains high frequencies of contrast markers is not tightly correlated with the factor 'literary genre', witness the fact that for example Celsus and Pliny the Elder, who both wrote scientific treatises, use contrast markers at strongly differing rates. There is a similar, but less extreme difference between the two historiographers in the corpus, to wit Livy and Tacitus.[7] Instead, the observed differences seem to be due to stylistic preferences of individual authors, which cannot be reduced to the properties of certain linguistic genres (in whatever way the relevant preferences are to be further understood).[8]

To conclude, the fact that the two earliest authors in our corpus represent a literary genre which is absent in all later samples does not undermine our hypothesis that the low frequencies of contrastive *quidem* in Plautus and Terence are the reflex of an ongoing process of language change. To account for the observation that the range of environments in which *quidem* occurs does not remain stable over time, in the remainder of this paper we will evaluate the hypothesis that a second lexical entry for *quidem* must be postulated. Concretely, we will assume that plain and contrastive *quidem* correspond to two distinct lexical items, respectively QUIDEM1 and QUIDEM2, whereby QUIDEM2 is the innovative variant. Though less parsimonious, as we will argue this polysemic analysis is plausible in terms of diachronic semantics, and it opens up the possibility to offer a first unified account of 'bare' *quidem* and the complex particle *ne...quidem*, to which we now turn.

3. The diachrony of *ne...quidem*

As has been known since Grossmann (1884), *ne...quidem* 'also not, not even' only becomes productive in the course of the first century BCE; in particular, the meaning 'not even' (scalar interpretation) is rare before Cicero (Orlandini 1999: 145).[9] It is in fact difficult to quantify the relative frequency of *ne...quidem*, as it not immediately clear with which baseline the frequency of this expression is to be compared. Alternatives to express the meaning 'not even' include *etiam non* (9), *quoque non* and *neque*/*nec etiam*, discussed in Orlandini (1999), besides *neque adeo*, *nec/non saltem*, and *nec denique* (on which, see Orlandini & Poccetti, this volume). The use of *neque/nec* with the meaning 'not even' is post-classical (Orlandini 1999: 147; Orlandini & Poccetti 2007: 38). Bare *ne* meaning 'not even' is probably a later formation (Fruyt 2008: 14), the first attestation being from Petronius (10).[10]

(9) **Etiam** cum uxore **non** cubet?
"Do you mean that he shouldn't even sleep with his own wife?" (Plaut. *Merc*. 538)

(10) Hoc solum uetare **ne** Iouis potest.
"This is the only thing that not even Jove can forbid." (Petron. 47.5)

The various expressions just listed seem infrequent, but presently no corpus data are available to make a more precise claim about this matter, nor about the diachronic distribution of the relevant

[7] The discrepancy between Livy and Tacitus is unlikely to be due to the fact that the Tacitean corpus also contains the *Germania* and the *Dialogus de oratoribus*, two texts which are not (prototypically) historiographical, but which are very short, and therefore unlikely to have a major impact on the overall data.

[8] Analogous remarks can be made about the data in Table 1, modulo the fact that in that dataset there is an additional diachronic effect.

[9] For further discussion of *ne...quidem*, see Grossmann (1884); Orlandini (2001: 211-242); Gianollo (2017: 58-62). Although *ne* in *ne…quidem* has a long vowel, its functional domain is connected to the prehistoric negative particle **ne* rather than to modality-sensitive negation *nē* (Fruyt 2008): *ne…quidem* belongs to the paradigm of sentential ("descriptive") negation.

[10] This usage of *ne* was explicitly singled out by Quintilian (*inst*. 1.5.39) as one particular type of 'bad Latin'.

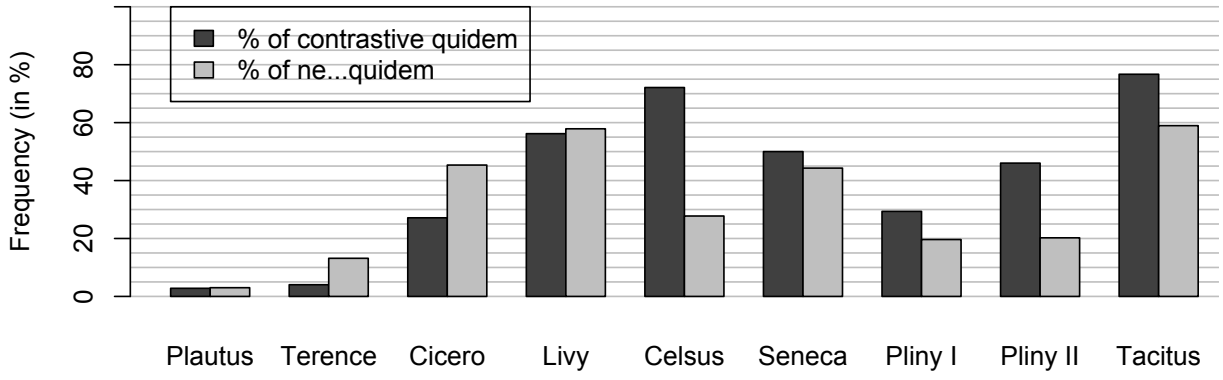
items. Therefore, we remain agnostic as to whether we are dealing with a 'competition' scenario, in which *ne...quidem* increases in frequency because it takes over from one or more pre-existing expressions with the same meaning and/or function.

Despite it being difficult to define a good standard of comparison, the figures in Table 3 give us some idea of the relative frequency of *ne...quidem* over time. We provide data for the same nine authors as above, but this time for some authors we looked at a slightly larger sample. In the third column, we give the total number of occurrences of *quidem* (i.e. the combined total of the two usages of bare *quidem* discussed in the previous section, supplemented with all tokens of *ne...quidem*). In the next two columns, we first give the total tokens counts of *ne...quidem* per author, and then the proportion of those tokens of *ne...quidem* relative to the total figures given in the third column.

Author	**Date**	**# of *quidem***	**# of *ne...quidem***	**% of *ne...quidem***
Plautus (*opera omnia*)	-200	465	14	3,01%
Terence (*opera omnia*)	-165	114	15	13,16%
Cicero (*In Ver.*, *Phil.*)	-60	419	190	45,35%
Livy (*Ab Urbe condita* 1-39)	5	508	294	57,87%
Celsus (*De medicina* 1-8)	30	317	88	27,76%
Seneca (*Ad Lucilium* 1-124)	50	298	132	44,30%
Pliny the Elder (*Nat. Hist.* 1-37)	79	555	109	19,64%
Pliny the Younger (*opera omnia*)	100	262	53	20,23%
Tacitus (*opera omnia*)	110	251	148	58,96%

Table 3: Frequencies of *quidem* and *ne...quidem* from Early to Classical Latin.

Graph 1 offers a visual comparison of the results from Tables 1 and 3 (from both tables, we plotted the percentages given in the rightmost column). Although the values obtained in both data sets are not entirely parallel for every single author (in particular Celsus and Pliny the Younger are particularly fond of contrastive *quidem*), there is a clear difference between Plautus and Terence on the one hand, and all later text samples on the other, where we invariably observe frequencies of *ne...quidem* and contrastive *quidem* of around 20% or more.



Graph 1: comparing the rise of contrastive quidem *and* ne...quidem.

We propose that the parallel development of contrastive *quidem* and *ne...quidem* is not accidental, but rather a reflection of the fact that the complex expression *ne...quidem* in its scalar interpretation also features QUIDEM2. If this is correct, we still have to determine what the semantic difference is between QUIDEM1 and QUIDEM2, in such a way that the semantics we attribute to the latter is

compatible with the dual diachronic development summarized in Graph 1. In the next section we will have a closer look at the semantics of *quidem* in negative contexts.

4. Uses of *quidem* in negative contexts

We find *quidem* in semantically negative environments both in the lexicalized discontinuous particle *ne…quidem*, and in combination with other means to express negation, such as the negative marker *non*, the negative indefinites *nemo*, *nihil*, *nullus*, correlative negation *neque*/*nec*, the complementizer *nisi*, etc.

4.1 Negative elements other than *ne*

In the non-lexicalized combinations with negative elements other than *ne*, the meaning of *quidem* can be traced back to QUIDEM1: the particle conveys that the (negative) proposition is presented as uncontroversial. In all these contexts, *quidem* outscopes negation and, analogously to the positive uses (Danckaert 2014, 2015), it scopes in fact over the entire proposition.

Non-controversiality can be due to a number of pragmatic reasons. In (11) it derives from solid empirical evidence. In (12) it signals a shared opinion about a given state of affairs: Cicero tells the addressee that he agrees with his choice of sending Lucilius as an informant, since for both speaker and addressee Lucilius is obviously the best person for the task. In (13), the use of *quidem* highlights a firm resolution on the part of the speaker. Since the negative proposition is introduced in the discourse as not up for discussion, this results in polarity emphasis: (13) expresses the inflexible refusal of a drinking offer.

(11) Hac quidem **non** uenit.
"He hasn't come this way, at all events." (Plaut. *Asin*. 741)

(12) Quo quidem hominem **neminem** potuisti nec mihi amiciorem nec, ut arbitror, ad ea cognoscenda quae scire uolebam aptiorem prudentioremue mittere
"You could not have sent me any friendlier or, as I suppose, better qualified or more sensible informant to tell me what I want to know." (Cic. *fam*. 3.5.1)

(13) **Non** potem ego quidem hercle.
"I certainly won't drink." (Plaut. *Aul*. 570)

Quidem may also co-occur with correlative negation (*neque quidem*, *nec quidem*): in these cases, the particle reinforces the correlation, concluding the whole argument, either by expressing the speaker's certainty based on empirical evidence (14) or by highlighting that the claim refers to general cultural knowledge and practice (15).

(14) **Neque** pol est **neque** huc quidem ullus uenit.
"He isn't in there, nor, in fact, has anyone come here at all." (Plaut. *Rud*. 340)

(15) Nam prooemium, cum precari debeat iudicem, fatigare **non** debet; **nec** epilogus quidem.
"The introduction should not be demanding, since it has to call upon the judge; nor should the conclusion, all the more so." (Quint. *decl*. 338)

Though quite rare in our corpus, these examples are relevant in view of the role they could have had in favoring the semantic specialization of *ne…quidem* as a scalar particle ('not even'). Scalar interpretations emerge when propositions are interpreted as being ordered with respect to one another: the relevant scale can be one of probability, or argumentative strength (cf. further Section 4.2.2, and

Gast & van der Auwera 2011 for the scale's nature). In (14) a scalar flavor is detectable, in that the second conjunct is argumentatively stronger than the first one: the master is not in the temple, and there is no doubt about that, since no person at all was seen at the spot. In (15) the main claim is that one should avoid tiring the audience and in particular the judge in those sections of a speech that contain the appeal; this applies especially to the speech's proem and all the more so to its epilogue. Within this specific passage, the scalar interpretation is suggested by the more general comparison of proem and epilogue, from which the epilogue's more decisive role in orienting the judge emerges: "tears dry fast", the text says immediately afterwards, hence the epilogue's appeal is more influential than the earlier appeal in the proem. Note that the scalar interpretation is not obligatory: it qualifies, rather, as an invited inference, in Traugott & Dasher's (2001) terms, that is, as an optional meaning enrichment, emerging in contexts that grant, but do not force, it.

As anticipated in Section 1, we believe that a scalar component is what distinguishes QUIDEM2 from QUIDEM1: invited inferences such as those seen above with correlative negation represent possible bridging contexts, that is, contexts that are compatible with both a conservative (non-scalar) and an innovative (scalar) interpretation and are, thus, particularly important in the process of change.

Note, in this connection, that very often the manuscript tradition shows uncertainty between *ne…quidem* and *nec…quidem*. This points to a growing formal confusion between *nec* and *ne*, intertwining with (and possibily favored by) the developing functional overlap between *nec* and scalar *ne…quidem* (on which see Gianollo 2018: 222-251).[11]

4.2 The discontinuous particle *ne…quidem*

As in the positive uses and in the uses with other negative elements, also when combining with *ne* the particle *quidem* scopes over the entire proposition (Orlandini 2001: 215). The negative particle and *quidem* form a complex, discontinuous particle that takes sentential scope, contributing sentential negation, and narrowly focuses on ('associates with') one smaller constituent. The two elements of the particle are always separated by at least one word, which is or belongs to the narrowly focused constituent; more intervening words are possible under certain prosodic conditions, cf. Devine & Stephens (2006: 266-277), and (16):

(16) ne **bonum uerbum** quidem unum dixit
"She didn't even say one single kind word to me." (Plaut. *Truc*. 543)

The discontinuous particle *ne…quidem* has a fundamentally anaphoric value, by referring back to a previous negative proposition, which may be explicitly present in the previous linguistic context, or inferred on the basis of relevant world knowledge present in the common ground. The explicit presence of an antecedent typically leads to an additive meaning 'also … not', which corresponds to the use as *adverbe d'énoncé* in Orlandini's (1999, 2001) analysis. We will discuss this use in Section 4.2.1. Recourse to inferential mechanisms referring to the wider discourse context typically results in a scalar meaning 'even … not' (rendered in English as *not even*, cf. (16)), which corresponds to Orlandini's (1999, 2001) argumentative use as an *adverbe d'énonciation* (see Section 4.2.2).

4.2.1 Additive use of *ne…quidem*

When *ne…quidem* has an additive value ('also not'), the proposition in focus (that is, the proposition targeted by *ne…quidem*) is interpreted with respect to an unordered set of focus alternatives. Additivity can be understood as "*addition sur un plan d'égalité*" (Orlandini 1999: 148): alternatives to the proposition in the scope of the particle are evoked, that is, made relevant for the interpretation.

[11] It is worth noting that the Romance continuations of correlative *nec* (e.g. French *ni*, Italian *né*) lose the velar component, and that this process is already amply attested in Merovingian Latin (Gianollo 2018: 225-227; see also Adams (2013: 779) for instances in the material from Vindolanda).

The hearer is invited to build an anaphoric link with a previous proposition, which has to be explicitly present in the context. The particle conveys that the proposition over which it scopes holds as well as its anaphorically retrieved alternative; as mentioned, in the additive reading, alternatives belonging to the common ground come in an unordered set.

Orlandini (1999: 144-145) explicitly treats non-argumentative *ne…quidem* as additive and remarks how this use is often found in logical syllogisms, frequently accompanied by *igitur* (17).

(17) si illud, hoc; **non** autem hoc; **igitur** ne illud quidem.
"If that is valid, then so is this; but if this is not valid, then neither is that." (Cic. *fin*. 4.55)

This specialized use possibly explains a preliminary observation emerging from our corpus work, namely that additive uses are very rare for early authors in our sample: for instance, all passages with *ne…quidem* in Plautus receive a scalar interpretation, not an additive one. Additive interpretations are more frequently found in Cicero's philosophical writings, cf., besides (17), also (18), where it again occurs in combination with *igitur* highlighting the logical nature of the conclusion:

(18) qui autem uoluptate uitam effici beatam putabit, qui sibi is conueniet, si negabit uoluptatem crescere longinquitate? **igitur** ne dolorem quidem.
"But how can one who thinks that life is made beautiful through pleasure be consistent with himself if he denies that pleasure increases by duration? If so, neither should pain [increase by duration]." (Cic. *fin*. 2.27)

In examples like (17)-(18) *ne…quidem* has a "conclusive" nature: the item introduced by *ne…quidem* typically concludes a list of symmetric alternatives. We connect the presence of *ne…quidem* in these cases to the value of QUIDEM1: *quidem* flags the negative proposition as uncontroversial, whereby non-controversiality emerges as a logical necessity from the syllogism; the proposition is already implied by the previous one(s). Also in this case, we remark the potential for scalar enrichment by means of an invited inference: in view of the preceding propositions the *quidem*-clause may be interpreted as the *most* uncontroversial, an interpretation which presupposes the introduction of a scale of controversiality (hence, asymmetrical alternatives).

4.2.2 Scalar use of *ne…quidem*

Additive particles can have scalar interpretations when their foci happen to denote an extreme value (König 1991: 62). We argue that when *ne…quidem* has a scalar reading, *quidem* flags the focus value as minimally controversial. These uses, where controversiality is relative to a contextually evoked scale, are at the core of what we consider to be an innovative, derived lexical entry, QUIDEM2.

For instance, in (16) the focus value is represented by *bonum uerbum unum* 'one single kind word': *quidem* marks the fact that a single kind word is minimally controversial, hence obvious and expected, as a possible act of kindness. The interaction with negation yields the 'not even' flavor: negating the minimally controversial proposition ("she said one kind word") amounts to completely excluding any act of kindness (a particularly striking statement). We see, thus, how the argumentative force of scalar *ne…quidem* is connected to negation strengthening: "*nier la quantité minimale pour nier la totalité*" (Orlandini 1999: 148).

Similarly, in (19) the minimal value on which *quidem* operates is given by the lowest value on the scale of natural numbers; in (20), it is inferentially derived by world knowledge, bleating being a minimally controversial attribute of sheep.

(19) NI. Da mihi ducentos nummos Philippos, te obsecro.
CH. Ne unum quidem hercle, si sapis.
Nicobulus: "Give me two hundred Philippics, I beg you."

Chrisalus: "No, not even a single one if you're in your right mind." (Plaut. *Bacch*. 1026-1027)

(20) Quin aetate credo esse mutas. / Ne balant quidem, quom a pecu cetero absunt.
"I think that they're dumb because of their age. They aren't even bleating despite being away from the rest of the flock." (Plaut. *Bacch*. 1135-1136)

Note that the uncontroversiality marked by *quidem* in this scalar use is much less context-dependent than in cases involving the positive counterpart: uncontroversiality does not emerge from an interactionally built conversational common ground, but refers to more general properties of categories (sheep) or natural scales (as the number scale). We interpret this increased context-independence as a sign of a process of grammaticalization, connected to the conventionalization of the scalar inference differentiating QUIDEM2 from QUIDEM1.

Another aspect that speaks for treating the scalar use of *ne…quidem* as connected to a grammaticalization process consists in the fact that the scalar reading requires the negative particle *ne* to scope above *quidem*, in order to derive the right semantic-pragmatic conditions. This idea is formalized in (21), which will later help us to define the second lexical entry for *quidem* hinted at above (QUIDEM2).

(21) Scalar reading = even not (p):
a. $\neg$ p
b. presupposition: $\forall q \in C\ [q \neq p \rightarrow q <_{\mu} p]$
c. alternatives come in an ordered set, where C is the context and μ a contextually determined probability measure.

According to (21), the extreme value with which *ne…quidem* combines (its focus associate) is the most probable, expected alternative *p* according to a probability measure μ. The particle *quidem* has the function to flag this proposition as such (cf. the uncontroversial, discourse-old nature of the focus associate of QUIDEM1 in positive contexts). The negation (*ne*) reverses the scale and transforms the proposition in the least probable/expected (since it is the negation of the most expected). Being the least probable, this proposition is also the most informative one (hence, the strongest argument towards a certain claim): "not even the most obvious value holds" ("*la non-réalisation de la prédication fait de l'élément focalisé par* ne … quidem *l'argument le plus fort en vue d'une conclusion négative*", Orlandini 1999: 152).

Narrow scope with respect to negation distinguishes the scalar uses of *ne…quidem* from the combinations with other negative elements seen in Section 4.1 and from the additive uses in Section 4.2.1, where *quidem* always has wide scope with respect to negation. According to our analysis, this represents an important argument in favor of distinguishing an innovative QUIDEM2, lexicalizing (that is, conventionalizing) the scalarity requirement in its lexical entry.

König (1991: 158-159) remarks the difficulty of strictly separating additive and scalar readings, the choice between the two being strongly context-dependent. Scalar particles are in fact also additive, in that they incorporate the condition of additivity (more than one alternative has to hold); the difference consists in the structure that is imposed on the set of alternatives, which are ranked on a scale: a natural scale, as the number scale in (19), or a scale based on relevance, informativeness, pragmatic strength (depending on the theory adopted, cf. Gast & van der Auwera 2011), as the scale of relevant attributes of sheep in (20).

Orlandini (1999) attempts a connection between semantic-pragmatic theories and Argumentation Theory (Anscombre & Ducrot 1983) and shows how many Latin particles (among those she discusses are *quoque*, *etiam* and *ne…quidem*) are sensitive to an argumentative scale formed by propositions, which are ordered according to the weakest or strongest contribution of a given proposition towards a conversational goal. Argumentative uses are those in which pragmatic, discourse-related meaning beyond the basic truth-functional meaning becomes relevant for

interpretation. They convey a subjective evaluation on the part of the speaker and may be used as rhetorical devices employed to reach a given conversational goal.

Certain contextual factors favor a scalar interpretation. One of them is the existence of a syntactic-semantic correlation, suggesting a comparison (Orlandini 1999: 149), e.g. with *non modo, sed ... ne ... quidem* (22):

(22) itaque talis uir **non modo** facere, **sed** ne cogitare quidem quidquam audebit quod non audeat praedicare.
"Therefore such a man will not only not do, but also not even consider doing anything that he will not dare to say openly." (Cic. *off.* 3.77)

In general, all contexts that invite an argumentative use may favor a scalar reading, due to the *climax* built by the various arguments listed in favor of a conclusion: *ne…quidem* introduces the strongest one. These and similar contexts, which systematically invite a scalar inference, may have brought forward the conventionalization of such an inference in the innovative lexical item QUIDEM2.

5. Towards a unification

Having discussed the semantics of scalar *ne...quidem*, we can now account for the corpus data presented in Sections 2.2 and 3. We propose that the parallel increase of *quidem* in contrastive and negative environments both rest on the fact that *quidem* developed a conventionalized scalar component, present in both environments (with some negative uses possibly representing the bridging context, cf. Section 4.1). We thus postulate the existence of an innovative lexical item QUIDEM2, which however only minimally differs from its historical source QUIDEM1 in that it can be used in a narrower range of environments, viz. those in which the clause in (23c) (to be compared with (21b-c)) is satisfied:

(23) The expression QUIDEM2 (p), where p is a proposition,
  a. asserts that p is true,
  b. conventionally implies that the content of p is hearer-old or deactivated discourse-old information, and
  c. presupposes that p is part of a scale together with its alternatives, and that p is more likely than its alternatives: $\forall q \in C\ [q \neq p \rightarrow q <_{\mu} p]$.

In both the negative and the contrastive environments in which QUIDEM2 can occur, scalarity is relevant at the level of argumentative strength. In the case of *ne...quidem*, the scale consists of alternatives to the proposition modified by *quidem*, and it is organized along the dimension of probability (of being true). As detailed in Section 4.2.2, negating the most likely alternative p amounts to relocating this proposition to the opposite end of the scale: this scale-reversing operation yields an argumentatively very strong proposition, whose propositional content can be expected to be highly news-worthy.

In contrastive constructions too the scale is represented by alternatives to the first conjunct, optionally modified by *quidem*. In the wake of Ducrot (1980) and Anscombre & Ducrot (1983), there is now a wide consensus that (counterexpectational) contrastive coordination is asymmetric, in the sense that the second conjunct ranks higher on a scale of argumentative strength than the first.[12] (24) (based on Toosarvandani 2014: 12) characterizes the semantics of a 'p but q' expression more formally:

[12] Following much recent work, we assume that the counterexpectational use of *but*-like contrast markers is to be distinguished from the corrective and semantic opposition usages, which is not say that the various types do not have some common core: see Jasinskaja (2012), Winterstein (2012), Toosarvandani (2014), and references cited there.

(24) For two propositions p and q, to express 'p but q' is:
   a. to present p as a possible argument for an eventual conclusion r (which may or may not be identical to ¬ q),
   b. to present q as an argument against this conclusion, and
   c. to attribute more argumentative force to q in favor of ¬ r than to p in favor of r.

By means of illustration, consider a simple example from English. In the statement *this plant has wonderful flowers, but it is very delicate*, p (*this plant has wonderful flowers*) can be construed as an argument in favor of a third proposition r, for example *we should buy this plant* (p → r); q (*this plant is very delicate*) qualifies as a counterargument (q → ¬ r). The effect of contrastively coordinating p and q is that the latter is implied to be argumentatively stronger than the former, which in the case at hand makes purchase of the plant under consideration unlikely. When the order of the two propositions is reversed, the opposite effect obtains. Crucially, no such asymmetry is implied in the case of plain coordination (*this plant has wonderful flowers, and it is very delicate*).

A Ducrot-style analysis of counterexpectational contrastive coordination correctly predicts that in Latin 'p but q' configurations, we should typically find *quidem* in the first proposition: p is given, uncontroversial, backgrounded, etc., and thus highly compatible with *quidem*; the second, contrasted proposition is newly added to the common ground, and highlighted as argumentatively stronger (in view of its novelty and of the contrast itself): as a result, q effectively defeats p's argument in favor of r.[13] Let us consider how this works for some concrete Latin examples, starting with the 'direct denial of expectation' use, where p provides a (weak) argument against q (p → ¬ q; q). (25) is taken from a passage where Cicero describes the state of Pompey's army in the aftermath of the battle of Pharsalus. The first proposition, hosting *quidem*, states that the defeated camp is in total distress, which naturally gives rise to the expectation (¬ q) that the people in the camp will not be able to relax. The second proposition (q) explicitly defeats this expectation, saying that people quite generally (and therefore also those in Pompey's camp) do in fact manage to take their mind off their misery even in very difficult situations.

(25) erant quidem illa castra plena curae; **uerum tamen** homines, quamuis in turbidis rebus sint, tamen, si modo homines sunt, interdum animis relaxantur.
"Sure, that camp was full of sorrow; but still, humans, no matter how dire the circumstances, provided they have some degree of humanity, can from time to time take their minds off their troubles." (Cic. *Phil*. 2.39)

A case of indirect denial (p → r; q → ¬ r) is given in (26). Livy narrates an episode from the first Samnite war: the city of Cales is being besieged by the Roman army led by the consul Corvus. What is being contrasted is the soldiers' opinion and that of Corvus. The first proposition constitutes an argument in favor of taking Cales by storm (= r), and the second argues against this idea: as expected, it is the latter that prevails. This is confirmed by what is said in the next couple of sentences, where Livy asserts that Corvus' plan ends up being executed; the use of *itaque* signals that it is indeed logical that Corvus' opinion matters most.

(26) et militum quidem is erat ardor, ut iam inde cum scalis succedere ad muros uellent euasurosque contenderent; Coruus, quia id arduum factu erat, labore militum potius quam periculo peragere inceptum uoluit. Itaque aggerem et uineas egit turresque muro admouit [...].
"And the soldiers' zeal was such that they wanted to go nearer the walls with ladders straightaway, claiming that they would be able to get away. But because that was too difficult, Corvus wanted to carry out the enterprise through his men's labor rather than by risking their

[13] Compare Solodow (1978: 45): "More often [...] the *quidem*-clause serves as a foil to the following one". On Ancient Greek, Denniston (1954[2]: 370) makes a similar observation about two contrastively juxtaposed items accompanied by μέν and δέ.

lives. He therefore constructed a ramp and shelters, and moved towers closer towards the city walls [...].” (Liv. 8.16.7)

Let us conclude with a note of caution. Given our methodological choice not to impose any strict constraints on what we classify as an instantiation of ‘contrastive *quidem*’ (cf. Section 2.2), some tokens in our sample may be false positives, in that they actually contain QUIDEM1 occurring in a non-counterexpectational contrastive environment, not associated with any scalar inference. Our account predicts that this should be possible, as long as the requirement governing the discourse status of *quidem*’s host proposition is satisfied. More generally, it may be the case that whenever *quidem* occurs in the second conjunct of a contrastive construction, we are dealing with QUIDEM1. In our corpus this happens in 4,31% of the cases that we classified as contrastive. Consider (27), where Cicero opposes Verres’ lies (*nomine*) to the actual reality (*re ... uera*):

(27) Cum propter istius hanc auaritiam **nomine** classis esset in Sicilia, **re** quidem **uera** naues inanes quae praedam praetori, non quae praedonibus metum adferrent, tamen [...].
“Although because of his (i.e. Verres’) greed there was nominally a fleet in Sicily, but in reality there were only empty ships to bring booty to the praetor, not fear to pirates, still [...].” (Cic. *Verr*. II 5.63)

Once again, *quidem* can be used felicitously because it modifies accessible information: in the preceding paragraphs, Cicero details how Verres made improper use of the fleet under his command, by using it for his own purposes, rather than for protecting trade routes against pirates. The additional contrastive opposition between *nomine* and *re ... uera* (which is arguably not counterexpectational) is orthogonal to this.

6. Conclusion

We have offered a first attempt to unify the uses of *quidem* in positive and negative environments. This enterprise led us to observe that the rise in frequency of *ne…quidem* from Early to Classical Latin is mirrored by the rise in frequency of *quidem* in contrastive constructions. We interpreted this diachronic evidence to signal the development of a further meaning of *quidem* in addition to the one identified by Danckaert (2014, 2015). This meaning (‘QUIDEM2’) includes a presupposition of scalarity, which is exploited at the argumentative level (in the sense of Ducrot 1980; Orlandini 1999, 2001). Needless to say, many open questions remain regarding the pragmatic conditions under which scalar enrichment of QUIDEM1 came about. More broadly, the data discussed here raise a number of questions about the relation between negation and contrast, and more general formats of meaning reanalysis. We hope to return to those ‘broad-picture’ issues in future research.

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