

From (*nawther*) *ne...ne* to *neither...nor*

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DiGS 21 (Arizona State University),
June 5, 2019

1 Introduction

- This paper examines the historical development of English *neither...nor* coordination using corpus data from Old English through the early 18th Century. I argue that the loss of *ne* in coordination structures is a direct consequence of the morphosyntactic changes brought about by the Jespersen cycle (Wallage 2017).
- Descriptively, there are four overlapping stages of *neither...nor*-type coordination (1).

(1)	STAGE 1	<i>(nawþer) ne X ne Y</i>	(850-1500)
		<i>(neither) ne X ne Y</i>	(1150-1500)
	STAGE 2	<i>{neither/nawþer} X ne Y</i>	(1350-1570)
	STAGE 3	<i>neither X neither Y</i>	(1350-1640)
		<i>nawþer X nawþer Y</i>	
		<i>nor X nor Y</i>	
	STAGE 4	<i>neither X nor Y</i>	(1420-1710)

- **STAGE 1 (850-1500):** In Old English (850–1150)¹, the main negative conjunction structure was *ne...ne* (2-a), which could be reinforced with the focus particle *nawther* (NEG + *outher* ‘one of two’) (2-b). From the earliest Middle English (i.e.1150), *neither* begins to appear in these constructions (2-c).

- (2) a. and cwæð to hym dygollice: ne do ge na swa for þan ic na yfel on hym
and called to him secretly NEG do ye no such for then I no evil on him
næbbe gemet, ne be hælinge ne be restedaga gewemminge
NEG.have found, *ne* by healing *ne* by sabbath profaning
‘And he called to him secretly: do not so such, for I have found no evil in him,
neither by healing, nor by profaning the sabbath’ (*conicodA,Nic.[A]:4.2.159*),
undated OE
- b. ne ræde him mon nawðer ne Moyses boc, ne Regum
NEG read him man *nawther ne* Moses’ book, *ne* Kings

¹Note that 850 is specified here because there are no negative conjunction constructions before 850 in the corpus.

‘One is not to read to him, neither Moses’ book, nor Kings’ (coben-
rul,BenR:42.66.18.819), c950-1050

- c. ...ðat me of him ne scal neiðer ne speken ne þenchen
that me of him NEG shall *neither ne* speak *ne* think
‘...that one shall neither speak nor think of him’ (cmvices,61.675) c1150-1250

• **STAGE 2 (1350-1570):** The first conjunct begins to be marked with *nawther* (3-a) or *neither* (3-b) alone:

- (3) a. ...havyng nothyr mete ne drynke whthe
‘...having neither food nor drink with’ (cmgregor,200.1631), c1420-1500
b. For neyther by theyr prudence ne theyr sapyence...
‘for neither by their prudence nor their sapience’ (cmfitzja,B3V.158), c1420-1500

• **STAGE 3 (1350-1640):** *Ne* is lost in the secondary conjuncts as well. Both conjuncts are marked with *neither* (4-a), *nawther* (4-b), or *nor* (< reduction of *nawther*) (4-c):

- (4) a. ...thouȝ thei take not virginite, neither countynence, neither alle her goodis to pore
men
‘Though they do not take virginity, nor countenance, nor all her goods to poor men’
(cmpurvey,I,56.2267), c1350-1420
b. and sche answerde noþer unkovenabeliche noþer ful curteisliche:
‘and she answered neither inappropriately nor fully courteously:’ (cm-
polych,VI,473.3497), c1350-1420
c. and oþure þer ben þat han nouȝt of richesse, nor louen hit, nor þei sechen not to
hauen hit
‘and there are others that have no wealth, nor love (of it), nor do they seek to have
it’ (cmedver,251.483),c1350-1420

• **STAGE 4 (1420-1710):** The first conjunct is marked with *neither*, the second with *nor* (5)

- (5) a. and that was thys, shortly, that neyther he nor his wyf wold not come at hym.
‘And that was this, shortly, that neither he nor his wife would come (not) to him’
(cmmallory), c1420-1500
b. howbeit he can do no other, neither to me, nor to anye other Man,
‘How is it that he can do nothing else, neither to me, nor to any other man’ (*throckm-
E1-H,I,69.C2.364*), c1500-1569

1.1 Corporuses used

- *York-Toronto-Helsinki Parsed Corpus of Old English Prose* (YCOE) (Taylor et al. 2003)
- *Penn-Helsinki Parsed Corpus of Middle English (2nd Edition)* (PPCME2) (Kroch and Taylor 2000)

- *Penn-Helsinki Parsed Corpus of Early Modern English* (PPCEME) (Kroch, Santorini, and Diertani 2004)
- Corpus searches run on the GUI from IcePaHC (Wallenberg et al. 2011) and CorpusSearch2 (corpussearch.sourceforge.net)
- Spelling variants for the various forms taken from OED.

CORPUS	WORD COUNT	YEARS
YCOE	1.5 million	pre-850-1150
PPCME2	1.2 million	1150-1250
PPCEME	1.7 million	1500-1710

Table 1: Summary of corpora used

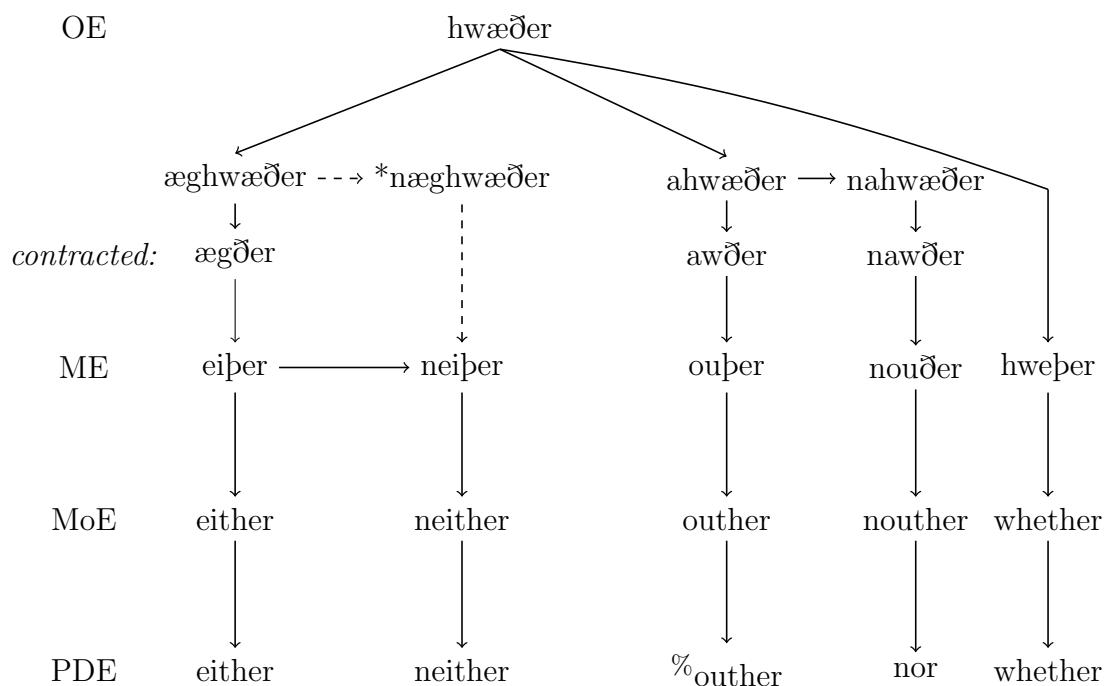
1.2 Roadmap

- §2 discusses the morpho-phonological and semantic history of the words *neither* and *nauther*, which are historically derived from *whether*.
- §3 discusses the syntax and semantics of correlative conjunctions like *neither...nor* (and *either...or*).
- §4 Provides in-depth discussion of each of the stages discussed above. It is argued that in conjunction structures, *ne* had an interpretable NEG feature in Old English. During the stage in the Jespersen cycle that sentential negation *ne* began to lose interpretable NEG, *ne* in conjunctions lost it as well. The changes from {*nauther/neither*} *ne...ne* to {*nauther/neither*}...*ne* are argued to be a direct consequence of this. *Neither* and *nauther* are argued to be focus particles, generated as adjuncts to both conjuncts, which initially moved across the board to the Spec of a higher FP. During Late Middle English to Early Modern English (Stage 4), the focus feature alone moved, reducing the second conjunct to *nor* and the first retaining phonological focus due to linear adjacency with the F⁰.
- §5 briefly discusses the possibility an analogical relationship with *either...or*.

2 From *whether*: *either*, *outher*, *neither*, and *nauther*

- Etymologically, *either*, *nauther*, and *neither* (and *nor*) come from the dual quantifier *whether* ‘which of two’ (Einenkel 1904a; Einenkel 1904b; Jespersen 1961; Gast 2013).²
- *Either* < *ægd̥er*, contracted form of *æghwæðer* < *æ* ‘ever, each’ (c.f. German *jemand* ‘someone’ < *eo-man*, *je* ‘ever, each’ (Gast 2013)) + *ge* + *hwæðer*
- *nauther* < *n* (negation) + *awðer*, contracted form of *ahwæðer* ‘one or the other (of two)’ < *a*, *æ* ‘ever, each’
- There was no Old English word *næghæðer* ‘neither’ (Einenkel 1904b). Rather, *neither* is a

²Also, see the following OED entries: “neither, *adv.* (and *conj.*), *pron.*, and *adj.*”; “nother, *adv.*1 (and *conj.*)”; “nauther, *pron.*, *adv.*, and *adj.*”; “either, *adj.* (and *pron.*) and *adv.* (and *conj.*)”; “whether, *pron.*, *adj.* (and *n.*), and *conj.*”

Table 2: Morpho-phonological history of *whether*, *either*, *neither*, and *outher*

Middle English innovation, probably via analogy with *either*.

- *Nor* is a reduced form of *nauther*.

- In addition to *nauther...ne*, Old English formed a *both...and* coordination through the use of *ægðer ge...ge*

- (6) and ge beoð ðonne englum gelice, witende ægðer ge god ge yfel
 and ye be then angels alike, knowing either ge good ge evil
 ‘Ye be then like angels, knowing of both good and evil’ (*cootest*, Gen:3.5.126) c950-1050

- *Either ge...ge* declined by 1150 with the loss of *ge*—the only instances in PPCME2 are from *Lambeth Homilies*, which is a compilation of older documents. In Middle English, *either* formed correlative structures with *and* (7-a), but this was driven out by the growth of *both...and* in the 14th century. *Either* begins to be used with *or* (7-c) with any real frequency only around the 16th century

- (7) a. eiðer for godes luue. and for hauwende hereword. and for to ben wuðed fer and ner
 ‘both for God’s love and for heavenly praise and for to be ?? far and near’
 (*cmtrinit*,157.2129) c1150-1250
- b. and so is he lord both temporell and spirituell in his contree
 (*cmmandev*,13.266) c1350-1420
- c. As I doubt not all in this will vanish so I assure yr Excellency I am not less firme
either in my owne services to yr Excellency or in ye representing yr enemies as well
 as my owne...
 (*osbourne-E3-P1*,13.13) c1640-1710

- *awðer* formed *either...or* correlative structures with *oððe* ‘or’ (8-a), though these structures were rare in the corpora, much less common than *oððe...oððe* (8-b).

- (8) a. *ðu hæst me forlætan þa unrottnesse ðy læst ic awðer oððe on mode oððe*
 thou have me left that sorrow which least I *outher or* in mind *or*
 on lichaman...
 in body...
 (*cosolilo, Solil_I:50.3.641*) undated
- b. & *he gæð dæghwomlice oþþe to ðare sunnan oððe from ðære sunnan swa fela*
 and he goes daily *oþþe* to that sun *oþþe* from that sun as many
 pricon...
 point
 (*cotempo,+ATemp:3.10.99*) c950-1050

DATE	<i>ægðer/either</i>		<i>awðer/outher</i>		<i>both</i>		<i>ge</i>	
	%	N	%	N	%	N	%	N
?-850	0	0	0	0	0	0	.028	2
850-950	.013	153	.001	11	0	0	.044	379
950-1050	.0056	186	.0002	8	0	0	.014	346
050-1150	.007	63	.001	6	0	0	.013	101
undated OE	.0081	105	.0006	8	0	0	.021	213
1150-1250	.0015	14	.0002	2	0	0	.003	7
1250-1350	0	0	0	0	0	0	0	0
350-1420	.007	133	.0032	61	.0011	20	0	0
1420-1500	.0004	7	.001	18	.004	69	0	0
1500-1569	.012	169	0	0	.016	231	0	0
1570-1639	.016	225	0	0	.019	272	0	0
1640-1710	.015	202	0	0	.016	218	0	0

Table 3: Uses of *either*, *outher*, *both*, and *ge* tagged as a conjunction, as a percentage of total conjunctions, by period.

DATE	%	<i>conj ne</i>	%	<i>nauther</i>	%	<i>neither</i>	%	<i>nor</i>
?-850	0	0	0	0	0	0	0	0
850-950	.050	426	.004	33	.001	7	0	0
950-1050	.04	1029	.0003	7	.0002	4	0	0
1050-1150	.032	246	.0004	3	.0004	3	0	0
undated OE	.04	415	.0009	9	.0004	4	0	0
1150-1250	.05	490	.001	6	.0003	3	0	0
1250-1350	.044	174	.0003	1	0	0	0	0
1350-1420	.027	502	.002	32	.006	117	.001	19
1420-1500	.024	424	.0038	66	.0036	63	.002	42
1500-1569	.002	29	.001	13	.014	204	.030	42
1570-1639	.0002	3	<.0001	1	.015	212	.024	339
1640-1710	0	0	0	0	.011	156	.027	375

Table 4: Frequency of conjunctions *ne*, *neither*, *nauther*, and *nor* as a percentage of all conjunctions

3 Syntax and semantics of correlative conjunction

• There are two main views of correlative conjunctions. What is controversial is the role of words like *either* and *neither* and the observation that they can appear either “too high” (9-b)–(9-c) or “too low” (10-b) with respect to the first disjunct (den Dikken 2006, following terminology from Kayne 1975 on Q-float):

(9) *Either* too high

- a. John ate [either rice or beans]
- b. John either ate [rice or beans]
- c. Either John ate [rice or beans]

(10) *Either* too low

- a. [Either John ate rice or he ate beans]
- b. [John either ate rice or he ate beans]

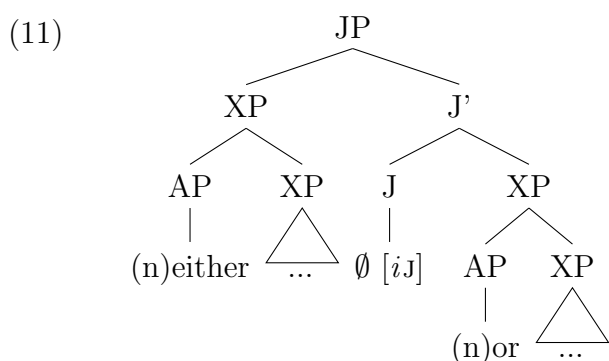
• The first view is that words like *either*, *neither*, and *both* are conjunctions which mark the scope of the conjunction (Larson 1985, see Hendriks 2003; Hendriks 2004 for review). This view is largely based on *either* too high (9), and argues that the asymmetries are a product of movement (Larson 1985; Bošković 1998), ellipsis (Schwarz 1999), or some combination of the two (Han and Romero 2004). It has very little to say about *either* too low (10) (den Dikken 2006).

• The second view is that *either* and *neither* are focus particles (Hendriks 2003; Hendriks 2004; Johannessen 2003; Johannessen 2005; Wurmbrand 2008). This is based on the fact that like *only* and *even*, the position of *either* and *neither* is highly variable, but crucially, their placement has an effect on semantic interpretation.

- The most convincing syntactic defense of the second view is den Dikken (2006). Following

Munn (1993), he argues that in *neither...nor* and *either...or*, *or/nor* are not true conjunctions, but that *either*, *neither*, *or*, and *nor* are adverbials which are generated as adjuncts to each conjunct.

- *Or* and *nor* have a bundle of uninterpretable formal features which they check with a phonologically empty head J. The most significant of these features is [J], which forces *or/nor* to be at the left edge of the second conjunct to establish an Agree relationship.
- *Either/neither* are phrasal constituents generated as adjuncts to the first conjunct. They attach either to a) the first contrastive focus, or b) a phrasal node on the θ -path from the first contrastive focus (p.707).



- For purposes of this paper, I assume that den Dikken's view is essentially right. Divorcing words like *nor* from conjunction is particularly instructive to explain the historical pattern in the current study.

4 Historical development of English negative correlative conjunction

4.1 STAGE 1: 850-1500

- In Old English, the main negative conjunction pattern was *ne...ne* (12), which frequently included more than two conjuncts.

(12) Ne beon ge ofermode ne to weamode ne to niðfulle ne to flitgeorne ne to felawyrde ne ealles to hlagole ne eft to asolcene ne to unrote
 'Be ye not overconfident, nor too ill-humored, nor too jealous, nor too contentious, nor too talkative, nor at all prone to laughing, nor too lazy, nor too sad' (*cowulf*, WHom.8c:168.678)

DATE	conj <i>ne</i>	2+ <i>ne</i>		3+ <i>ne</i>		4+ <i>ne</i>	
	N	%	N	%	N	%	N
850-950	426	.280	119	.077	33	.02	9
950-1050	1029	.223	233	.053	55	.022	23
1050-1150	264	.31	83	.13	35	.053	14
undated OE	450	.32	143	.12	52	.06	27
1150-1250	490	.48	235	.18	86	.076	37
1250-1350	174	.52	90	.17	29	.057	10
1350-1420	502	.22	111	.074	37	.026	13
1420-1500	433	.21	89	.065	28	.02	8

Table 5: Frequency of sentences containing 2+ conj *ne*, 3+ conj *ne*, 4+ conj *ne* (as a percentage of all total conj *ne*, by time period)

- *Ne...ne* could be reinforced with *nauther* (13-a), and from 1150, with *neither* (13-b).

- (13) a. And gyf hi aht gedon scylon, ne magon hi wandian naper ne for ege ne for lufe æniges mannes, þæt hi riht ne bodian and unright forbeadan
‘And if he shall do anything, he may not delay, neither for fear nor for love of any man, that he doesn’t boast right and forbid unright’ (coin-spolX,WPol.2.1.1_[Jost]:105.149), undated OE
- b. Giet he seið ðat here pemiend scal swo bien forloren, ðat me of hem ne scal neiðer ne speken ne þenchen
‘Yet he says that here remembrance shall as be false that one of him NEG shall *neither ne* speak *ne* think’ (cmvices,61.675) c1150-1250

- Comparing the corpus periods in pairs (Table 6), we see that the co-occurrence of *nauther/neither* with conjunction *ne* is much less frequent than conj *ne* alone.

DATE	conj <i>ne</i>	<i>neither/nauther+ne</i>		<i>ne</i> alone		p
	N	%	N	%	N	
850-950	424	.078	33	.92	391	-
950-1050	1029	.016	16	.98	1013	<.0001
1050-1150	263	.02	5	.96	258	.78
1150-1250	493	.02	8	.98	485	.53
1250-1350	174	.01	1	.99	173	.46
1350-1420	500	.086	43	.91	457	<.0001
1420-1500	427	.14	61	.86	366	.006
1500-1569	.2	0	6	.78	21	.26
1570-1639	4	-	0	1	4	.56
1640-1710	3	-	0	1	3	.1

Table 6: Frequency of conj *ne* being preceded by *nauther/neither*. P values are fisher exact tests of the period in line and the previous. Not shown: Undated OE (conj *ne*=447, *nauther/neither* precedes=17 (6.8%)), 1570-1639 (conj *ne*=4, *nauther/neither* precedes=0), 1640-1710 (conj *ne*=3, *neither/nauther* precedes =0)

- Comparing the 1250-1350 and 1350-1420 periods, there is a statistically significant increase in the frequency of *ne* with *nauther/neither* (as well as 1350-1420 with the period following).
- From 850-1250, it was most common for *nauðor* to occur immediately preceding the first conj *ne*. When *neither* began to be used, it too followed this pattern (see (13-b) above)
- *Nauther/neither* could also appear immediately before the sentential negator *ne*, whether it was contracted to the verb (14-a) or not (14-b)

- (14) a. Swa þonne is me nu swiþe earfeðe hiera mod to ahwettane, nu hit
 so then is to me now truly suffering their mind to excite, now it
nawþer nyle beon, ne scearp ne heard
nauther NEG.will be, ne sharp ne hard
 ‘Then it is difficult for me to excite their mind, now it will neither be sharp nor
 hard’ (coorosiu,OR_4:13.113.9.2362) c850-950
- b. forðæm ic hit no self nauht ne ondræde, for þam hit oft gebyreð þæt sio
 therefore I it no self naught NEG dread, for that it often happen that the
 lease wyrd nawþer ne mæg þæm men <don> ne fultum ne eac nænne dem
 false fate *nauther* NEG may the men do *ne* help ne each none harm
 ‘Therefore I myself do not fear it, for it often happens that false fate can neither
 do to men help nor harm’ (coboeth,BO:20.47.5.846) c850-950

DATE	<i>nauther</i>					<i>neither</i>				
	N	iprec: NEG	conj <i>ne</i>	N	%	N	iprec: NEG	conj <i>ne</i>	N	%
?-850	0	0	0	0	-	0	0	0	0	-
850-950	34	2	25	27	0.79	0	0	0	0	-
950-1050	16	0	16	16	1	0	0	0	0	-
1050-1150	5	1	1	2	0.4	0	0	0	0	-
Undated OE	(19)	(0)	(14)	(14)	(0.74)	(0)	(0)	(0)	(0)	(-)
1150-1250	6	0	3	3	0.5	3	0	3	3	1
1250-1350	1	0	0	0	-	0	0	0	0	-
1350-1420	32	0	0	0	-	107	0	1	1	0.009
1420-1500	66	0	0	0	-	49	0	0	0	-
1500-1569	9	0	0	0	-	200	0	0	0	-
1570-1639	3	0	0	0	-	200	0	0	0	-
1640-1710	2	0	0	0	-	148	0	0	0	-

Table 7: Frequency of *nauther* and *neither* immediately preceding sentential negation (NEG) and/or conjunction *ne*.

- The picture that emerges from Table 7 is that conjunction *ne* and pre-verbal negator *ne* follow roughly the same pattern with respect to correlative structures with *nauther* and *neither*.
- From OE through 1250, the majority (77%) of tokens of *nauther/neither* immediately precede conj *ne* or sentential negation *ne* (65/84). From 1250-1500 (and onwards), there is only a single instance of *neither* immediately preceding conj *ne*, a highly significant development (fisher $p = <.0001$, comparing 850-1250 to 1250-1500).
- Notice that the decrease in *nauther/neither* immediately preceding conj *ne* or sentential nega-

tion *ne* corresponds with Stage Two (15) of the Jespersen cycle (Jespersen 1917; Frisch 1997; Mazzon 2004; Ingham 2013; Wallage 2017).

- (15) Jespersen Cycle in English (Wallage 2017, pp.1-2)
- a. STAGE ONE: Sentential negation marked by *ne* alone (c. 1150-1300)
 - (i) we ne moten halden Moses e lichamlice
 we NEG might observe Moses' law bodily
 'We might not observe Moses' law literally' (cmlambxI, 89.735)
 - b. STAGE TWO: *not* cooccurs with *ne*. (c. 1150-1400)
 - (i) ac of hem ne speke ic noht
 but of them NEG spoke I NOT
 'But I did not speak of them' (cmtrinit,95.1272)
 - c. STAGE 3: Sentential negation marked by *not* alone (c. 1350-1500)
 - (i) Thou shalt not do so
 you shall NOT do so
 'You ought not to do so' (cmrolltr,41.855)

- At the same time, *ne*'s use in coordinate structures outlasts its use as a sentential negator (Table 8).

DATE	conj <i>ne</i>		NEG <i>ne</i>	
	%	N	%	N
?-850	0	0	1	3
850-950	0.17	426	0.83	2116
950-1050	0.17	1029	0.82	4969
1050-1150	0.192	264	0.808	1111
Undated OE	(0.21)	(450)	(0.79)	(1656)
1150-1250	0.23	490	0.77	1618
1250-1350	0.17	174	0.83	845
1350-1420	0.56	502	0.44	390
1420-1500	0.89	433	0.10	51
1500-1569	0.96	27	0.04	1
1570-1639	1	4	-	0
1640-1710	1	3	-	0

Table 8: Percentage of *ne* used as conjunction, sentential negation

- I will hold off proposing a syntax for these constructions until §4.2.1. It will be argued that sentential negation *ne* and *ne* in conjunction structures is the same morpheme until 1420, where *ne* is grammaticalized to have an uninterpretable J feature.

4.2 STAGE 2: 1350-1570

- As soon as *nauther/neither* began to decline as the sentential negator (properly speaking, when sentential negation began to be expressed with *ne+V+not*), the first conjunct begins

to be marked with *nauther* or *neither*. This can coordinate nouns (16-a), adjectives (16-b), prepositional phrases (16-c), verbs (16-d), etc.

- (16) a. (i) and fongeþ in no place [noþer gold ne silver]
 ‘and grasps neither gold nor silver in any place’ (*cmpolych*,VI,439.3223)
 c1350-1420
 (ii) he spared [neither busshe ne hawe]
 ‘He spared neither bush nor field’ (*cmreynar*,55.423) c1420-1500
- b. for it is [neiper lenger ne schorter]...
 ‘for it is neither longer nor shorter...’ (*cmcloud*,18.91) c1350-1420
- c. (i) ...[noðer on heuene ne on eorðe]...
 ‘...neither on heaven nor on earth’ (*cmtrinit*,171.2316) c1150-1250
 (ii) For godhede may not be chaunged, [neyþer fro pougþe to eelde, ne fro worse
 to beture,]
 ‘For godhood cannot be changed, neither from young to old, nor from worse
 to better’ (*cmwycser*,421.3536) c1350-1420
- d. (i) anne ne þarf us [noðer gramien. ne shamien.]
 ‘then we need neither grieve nor feel shame’ (*cmtrinit*,69.964) c1150-1250
 (ii) and so men may [neyther falle fro heuene to helle, ne fle fro helle to heuene]
 at þer owne wille
 ‘And so men may neither fall from heaven to hell, nor flee from hell to heaven
 at their own will’ (*cmwycser*,225.43) c1350-1420

• Only a single example was found from OE with a conjunct introduced by *nauther* alone (17), though note the early date.

- (17) Ac þonecan þe <he> ðone anwald forlæt, oððe se anweald hine, þonne ne bið
 but whenever that he the power forsake or the power him then NEG be
 he [nauðer þam dysegan ne weorð ne andrysne]
 he *nauther* the foolish *ne* worth *ne* causing.fear
 ‘But whenever he forsakes power, or power forsakes him, then he will neither be foolish,
 nor worthy, nor venerable’ (*coboeth*,BO:27.61.5.1132), c850-950

DATE	<i>nth...ne</i>	n-n		pp-pp		adj-adj		v-v		adv-adv		else	
	N	%	N	%	N	%	N	%	N	%	N	%	N
?-850	0	-	0	-	0	-	0	-	0	-	0	-	0
850-950	8	0.13	1	-	0	-	0	-	0	-	0	0.88	7
950-1050	0	-	0	-	0	-	0	-	0	-	0	-	0
1050-1150	4	-	0	-	0	-	0	-	0	-	0	1	4
Undated OE	3	-	0	-	0	-	0	-	0	-	0	1	3
1150-1250	3	0.33	1	0.33	1	-	0	0.33	1	-	0	-	0
1250-1350	1	1	1	-	0	-	0	-	0	-	0	-	0
1350-1420	42	0.36	15	0.17	7	0.12	5	0.14	6	0.071	3	0.14	6
1420-1500	61	0.44	27	0.18	11	-	0	0.13	8	-	0	0.25	15
1500-1569	6	0.33	2	-	0	-	0	0.33	2	-	0	0.33	2
1570-1639	0	-	0	-	0	-	0	-	0	-	0	-	0

Table 9: Frequency of symmetrical coordinate structures with *nauther...ne* and *neither...ne*, as a percentage of all *nauther/neither...ne* where *nauther/neither* does not immediately precede *ne*. Note: not including *nauther/neither* immediately preceding *ne*.

• One critical change is the frequency of (*nauther/neither*)...*ne* sentences with a clause-mate negation compared to the *ne...ne* clauses. While the frequency of *neither/nauther...ne* without a preceding negation increases, bare *ne...(ne)...* nearly always has a preceding negative element, whether it is sentential negation (18-a), the quantifier *no* (18-b), or the adverb *never* (18-c).

- (18) a. And men may not make the hole ne the cave where it is taken out of the erthe so depe ne so wyde...
‘And men may not make the hole, nor the cave where it is taken out of the earth so deep, nor so wide’
(*cmmandev*,44.1103) c1350-1420
- b. in swyche þyngges haue þy delyt, þe whyche no sleep ne smyte of noon outward boostes ne ocupacion lette.
‘In such things have thou delight, in which no sleep nor smite of anyone outwardly boasts, nor let have occupation’
(*cmaelr*3,37.332) c1350-1420
- c. Scho saghe neuer man ne woman...
‘she saw never man nor woman...’
(*cmtrolltr*,9.265) c1420-1500

DATE	<i>(neith/nauth)...ne</i>		Q <i>no</i> or NEG prec		<i>ne...ne</i>		Q <i>no</i> or NEG prec	
	N	%	N	%	N	%	N	%
?-850	0	-	0	-	0	-	0	-
850-950	33	0.48	16	0.80	86	0.80	69	0.80
950-1050	16	0.81	13	0.83	217	0.83	181	0.83
1050-1150	5	0.2	1	0.86	78	0.86	67	0.86
Undated OE	(17)	(0.71)	(12)	(0.81)	(126)	(0.81)	(102)	(0.81)
1150-1250	8	0.63	5	0.82	130	0.82	106	0.82
1250-1350	1	-	0	0.87	46	0.87	40	0.87
1350-1420	43	0.35	15	0.47	75	0.47	35	0.47
1420-1500	61	0.11	7	0.44	70	0.44	31	0.44
1500-1569	6	0.33	2	-	0	-	0	-
1570-1639	0	-	0	-	0	-	0	-

Table 10: Frequency of *(neither/nauther)...ne* and *ne...ne* (without *neither/nauther*) structures with a negative quantifier (e.g. *no*, *na*, *nothing*, etc.) or sentential negation (*ne* or *not*) preceding.

• Table 10 shows that the frequency of *neither...ne* with a preceding negation is in decline from 1150 on. But what of the *ne...ne* sentences without *neither/nauther*? While it appears that their cooccurrence with a preceding negation is in decline from 1350 on, further examination of the data reveals that this is incorrect. Most of them include words like *never*, *without*, or mistakenly omitted spellings of *neither/nauther*.³ The rest of the sentences, which were judged to be *(neither/nauther)...ne* or *ne...ne* with no other negative licenser (such as (19)) are reported in Table 11.

- (19) ne he wold laten hys clerkys takyn anythyng for wrytyn ne for seelyng of þe lettyr
‘He wouldn’t let his clerks take anything for writing, nor for the sealing of the letter’
(*cmkempe*,36.811) c1420-1500

DATE	<i>(neither/nauther)...ne</i>		¬neg		<i>ne...ne</i>		¬neg	
	N	%	N	%	N	%	N	%
850-1150	71	0.085	6	0.024	507	0.024	12	0.024
1150-1250	8	0.5	4	0.015	130	0.015	2	0.015
1250-1350	1	1	1	0	46	0	0	0
1350-1420	43	0.047	2	0.013	75	0.013	1	0.013
1420-1500	61	0.33	20	0.020	70	0.020	2	0.020
1500-1569	6	0.67	4	-	0	-	0	-

Table 11: Frequency of *neither...ne* and *ne...ne* in affirmative sentences.

4.2.1 From $\{nauther/neither\}$ *ne...ne* to *(nauther/neither)...ne*

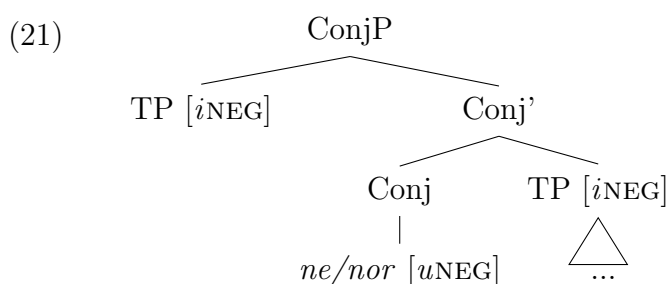
• The time has come to provide a syntactic analysis of the changes that took place from the Old English through Late Middle English/early Early Modern English. We have the following

³I did not add these spellings to any of the above counts due to time constraints.

patterns (20):

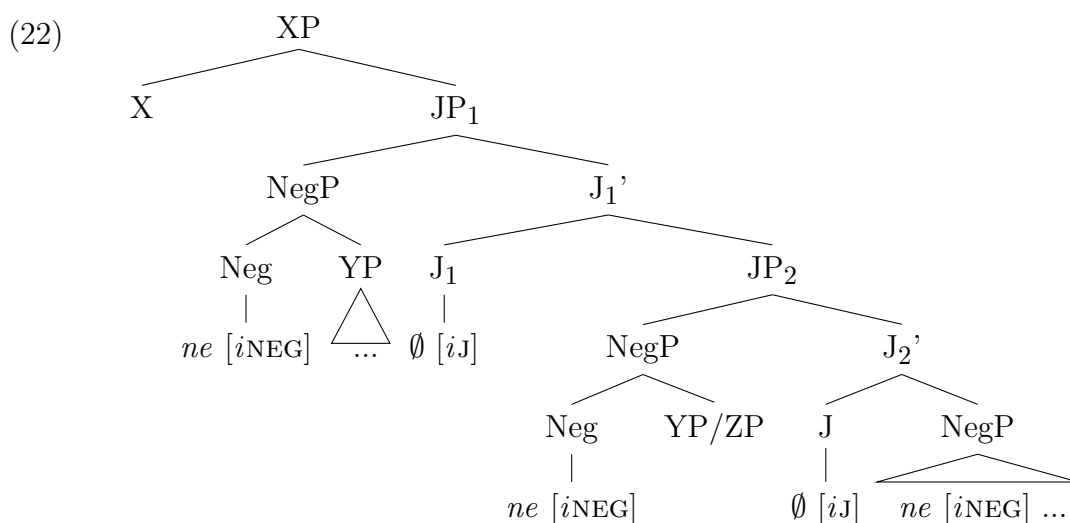
- (20) a. ... +NEG ... [*ne* ... *ne* ...] (850-1500)
 b. ... +NEG ... [(*nauther/neither*) *ne* ... *ne* ...] (850-1250/1350)
 c. ... +NEG ... [(*nauther/neither*) ... *ne* ...] (1250/1350-1570)
 d. ... -NEG ... [*nauther/neither* ... *ne* ...] (1420-1570)

• Previous analyses (Mazzon 2004; Ingham 2009; Ingham 2013) have argued that in correlative and general coordination structure, words like *ne* (and the later *nor*) are conjunctions with an uninterpretable NEG feature ((21) is Ingham’s (2009 proposal)). In other words, conj *ne* participates in negative concord through Agree with a higher interpretable NEG (Zeijlstra 2004; Zeijlstra 2008).



• Contra the structure in (21), I propose that conj *ne* is not a true example of negative concord in Old English–Early Middle English. Rather, conj *ne* and sentential negation *ne* are the same morpheme. *Ne* in conjunction structures is not generated as a Conj (following den Dikken’s (2006) for *or/nor*), but rather as the head of NegP.

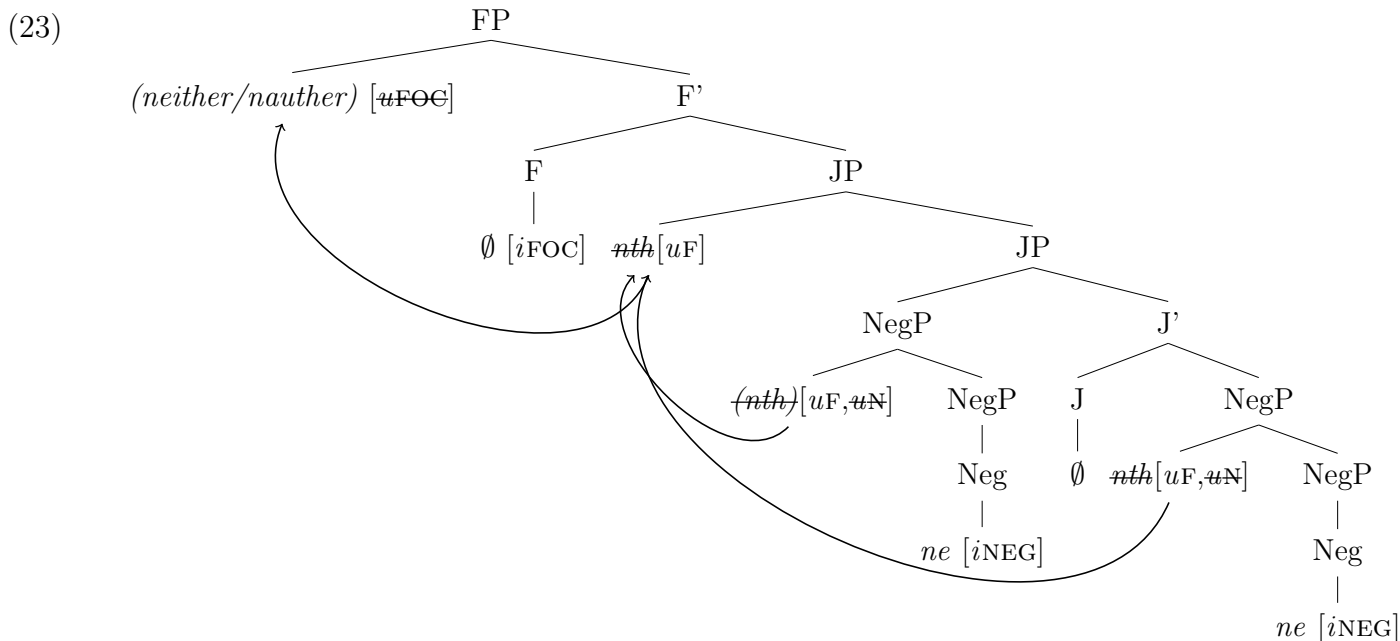
• As long as sentential negation *ne* had an interpretable NEG, *ne* in conjunction structures did as well. *ne...ne..* conjunction is essentially conjunction between two or more NegPs.



• Essentially, what (22) is proposing is that *ne...ne..* is structurally $\neg\phi\wedge\neg\psi$, rather than $\neg(\phi\vee\psi)$ (similar to Wurmbrand 2008).

• J establishes an Agree relationship with *ne* (similar PDE *nor/or* (den Dikken 2006)).

• *nauther/neither* is a focus particle, generated as an adjunct to each NegP. It has the following bundle of features [$u_{\text{NEG}}, u_{\text{FOC}}$]. It moves, across the board,⁴ first to the left edge of NegP (where its NEG is interpreted), then to Spec,FocP (where its FOC is interpreted):



- When sentential *ne* began to lose its interpretable NEG feature (in Middle English), conj *ne* did as well. At this point, there is no need for *ne* in the first conjunction (as it would not establish an Agree relationship with anything), and thus it is lost.
- *Ne* in secondary conjuncts is maintained because it has been grammaticalized to have an uninterpretable J(unction) feature.

4.3 STAGE 3: 1350-1640

• Around the same time that *nauther/neither* is able to license conj *ne*, we see another pattern emerge, albeit briefly. *Neither...neither* and *nauther...nauther* begin to be used as correlative structures.⁵

- (24) a. for the our schal come, whanne nether in this hil, nether in Jerusalem, pe schulen sorschipe the fadir
 ‘For the hour shall come, when neither in this hill, nor in Jerusalem, shall you worship the father’ (cmntest,4,20J.285) c1350-1420
- b. and sche answerde noper unkoventabeliche noper ful curteisliche:
 ‘and she answered neither inappropriately nor fully courteously:’ (cm-

⁴Note that this is a significant departure from den Dikken (2006), who argues that words like *either/neither* are only generated as adjuncts to the first conjunct. I take this ATB movement approach to explain the sudden appearance of *nauther...nauther/neither...neither* conjuncts in Stage 3.

⁵Due to time constraints, I was not able to examine *nor...nor* coordination in depth and have omitted it from the current discussion.

polych,VI,473.3497), c1350–1420

- Of the *nauther...nauther/neither...neither* examples with a preceding negation, many are adjuncts and thus would not participate in negative concord, though *nauther/neither* do seem to be able to license negative concord (25-b)

- (25) a. but it is noupt þere i-rad what is þe ript fey, noþer what men beþof riptbileve
noþer what men beþof misbileve.
 ‘but it is not there prepared what is the right fate, neither what men be of right belief nor what men be of misbelief’ (*cmpolych*,VI,33.214) c1350-1420
- b. and he had never pite of me nother of none of my conceyle nother of my courte.
 ‘And he never had pity for me, neither for any of my council, nor of my court’ (*cmmallory*,688.4912) c1420-1500
- c. Thoup this replicacion seme colourable, it hath no good ground, neither resoun, neithir charite...
 ‘Though this replication seems colourable, it has no good ground, nor reason, nor charity’ (*cmpurvey*,I,58.2311) c1350-1420

DATE	<i>nauther...nauther</i>		neg prec		<i>neither...neither</i>		neg prec	
	N	%	N		N	%	N	
1250-1350	0	-	0		0	-	0	
1350-1420	3	0.67	2		21	0.52	11	
1420-1500	9	0.56	5		1	1	1	
1500-1569	1	0	0		14	0.43	6	
1570-1639	0	-	0		2	0	0	
1640-1710	0	-	0		3	0	0	

Table 12: Frequency of *nauther...nauther* and *neither...neither* with a preceding negative element (including quantifier *no*, sentential negation, adverb *never*)

- Interestingly, there are examples where *nor* is included as well as two *nothers*:

- (26) noþyr eete fleche nor fyche noþyr berd
 ‘Neither eat flesh, nor fish, nor bird’ (*cmsiege*,71.32) c1420-1500

- Only a single example was found with *neither* and *nauther*, which also includes a *nor*:⁶

- (27) and fyndyng in the traytororous attempts lately discovered that neither Barker nor Ban-
 nister the Duke of Norfolks men have uttred ther knolledg, nother will discover the same
 without torture;
 (*eliz-1570-E2-P2*,1.2,261.16) c1570-1639

- No examples were found of *neither...nauther* or *nauther...neither*.

⁶In example (27), *nother* may actually be a quantifier.

- My proposal for this stage is that, because *ne* ceases to contribute anything to the structure, it is lost. *Neither* and *nauther* continue to have the bundle of features [uNEG,uFOC], with NEG being interpreted by a null Operator. *Neither/nauther* in the right conjunct began to establish an Agree relationship with the J(unction) head.

- There are two possibilities for the structure of this stage:

- (28) a. OPTION 1: *neither...neither/nauther...nauther* is the coordination of two FPs, which the
- b. OPTION 2: *neither...neither/nauther...nauther* is the coordination of two NegPs (as before), with each FOC being interpreted by an FP which immediately dominates the JP. Neither of the *neither/nauthers* can move any higher because it would break the Agree relationship with J⁰.

- Because of the growth of *neither...nor*, I will assume the second option (28-b) is correct, for reasons that will become clear soon.

4.4 STAGE 4: 1420-1710

- From 1420 on, we see a rapid decline in *neither...neither/nauther...nauther* and (*nauther...ne*) correlatives, and a rapid increase in *neither...nor*.

- (29) a. and that was thys, shortly, that neyther he nor his wyf wold not come at hym.
‘And that was this, shortly, that neither he nor his wife would come (not) to him’
(*cmmallory*), c1420–1500
- b. howbeit he can do no other, neither to me, nor to anye other Man,
‘How is it that he can do nothing else, neither to me, nor to any other man’ (*throckm-
E1-H,I,69.C2.364*), c1500-1569

- The frequency of bare *nor* (i.e. not with *neither/nauther*) without a negative element preceding is always very high (Table 13), while the frequency of *neither...nor* without a preceding negative element is at chance (Table 14).

DATE	<i>nor</i> (no <i>neither/nauther</i>) N	neg prec		¬neg prec		p
		%	N	%	N	
1350-1420	20	0.95	19	0.05	1	-
1420-1500	37	0.86	32	0.14	5	0.41
1500-1569	339	0.99	337	0.0059	2	0.0001
1570-1639	254	0.99	252	0.0079	2	1
1640-1710	291	0.99	288	0.010	3	1

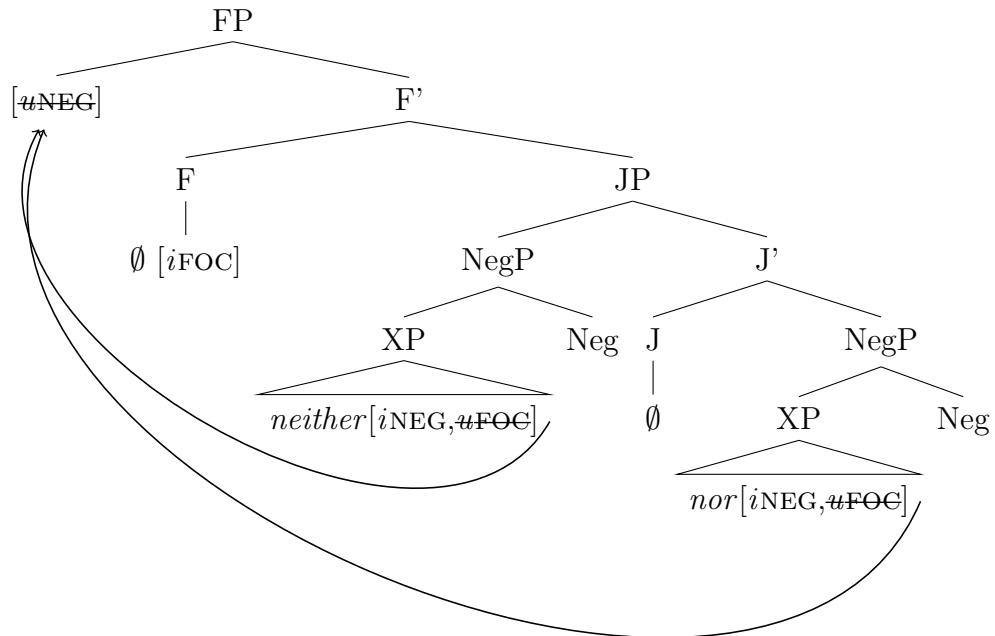
Table 13: *Nor* with no *neither/nauther*, frequency with a preceding negative. Negatives include sentential negation (*ne*, *not*), *never*, *no*. P values are fisher, comparing the period in line with the above period.

DATE	<i>neither...nor</i>	neg prec		¬neg prec		p
	N	%	N	%	N	
1350-1420	0	-	0	-	0	-
1420-1500	6	0	0	1	6	1
1500-1569	115	0.608696	70	0.391304	45	0.004
1570-1639	102	0.519608	53	0.480392	49	0.22
1640-1710	102	0.509804	52	0.490196	50	1

Table 14: *Neither...nor*, frequency with a negative preceding. Negatives include sentential negation (*ne*, *not*), *never*, *no*, *nothing*, etc.. P values are fisher, comparing the period in line with the above period.

- My proposal is that *neither* and *nor* were beginning to acquire interpretable NEG features from 1420 on.
- Rather than both *neither/nauthers* acquiring phonological focus from the FP above them, the focus feature alone moves (across the board from both conjuncts):

(30)



- *Neither* gets phonological focus from the linearly adjacent F^0 , while in the second conjunct, *neither/nauther* is unfocused, thus being reduced to *nor*.

5 Relationship to *either...or*

- One thing that I have not yet discussed is the relationship to *either...or*.
- Given that *neither...nor* and *either...or* are structurally and phonologically similar, it is not crazy to assume that the growth of *nor* was caused by analogy with *or*.

- Even in Old English *either*'s etymon *ægðer* formed a *both...and* correlative structure which was similar to *nawther ne...ne* (i.e. *ægðer ge...ge*, see §2)
- As it turns out, *neither...nor* and *either...or* show up at the same time. In Middle English, only two examples of *either...or* were found:

- (31) a. ...they wene that either the leve or the mowyng to don wikkidness...
 ‘they think that either the leaf or the moving to do wickedness...’ (cm-boeth,448.C1.406) c1350-1420
- b. It is ful harde to be amonge occasyon and not to be stured either by etynge of deliciouse metes, or drynkyng of deliciouse drinkes, or amongst conuersacion of children
 ‘It is very hard to be among occasion and not to be stirred either by the eating of delicious foods, or the drinking of delicious drinks, or amongst conversation of children’ (cmaelr4,11.295) c1420-1500

- In the Early Modern English corpus, *either...or* explodes in number, the same time we see *neither...nor* replacing the previous negative correlative conjunctions:

DATE	<i>either...or</i>	<i>neither...nor</i>
1250-1350	0	0
1350-1420	1	0
1420-1500	1	6
1500-1569	147	115
1570-1639	215	102
1640-1710	186	102

Table 15: Total number of *either...or* and *neither...nor* by corpus period

- Given that the forms appear at the same time, it is not possible to establish a relationship for an analogical relationship. It is equally likely that *either...or* is a product of analogy to *neither...nor* as vice-versa.

Acknowledgments: Many thanks to Stefan Höfler, Kevin Ryan, Gennaro Chierchia, Jonathan Bobaljik, Jim Huang, Saurov Syed, Ashwini Deo, Jeremy Rau, Zachary Rothstein-Dowden, Gunnar Lund, Lukas Kahl, Tamisha Tan, Niels-Torben Köhlert, Danfeng Wu, Marjorie Pak, Laura Zeng, audience at Harvard Indo-European Workshop, audience at SNEWS.

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