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**‘Wonder’ nouns and the development of a mirative constructional network:  
An exercise in semiotic diachronic construction grammar**

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**Abstract**

This paper discusses the emergence and development of a mirative constructional network involving the shell nouns *wonder*, *marvel* and *chance*, called ‘wonder’ nouns here. In combination with negative quantifiers (e.g. *no wonder*), they can be used either lexically or as part of grammatical, mirative markers, qualifying a proposition as unsurprising in view of another situation. The network emerges in Old English around *wonder*, with three meso-constructions which differ in surface structure but all inherit the anti-concessive schema from the macro-construction, consisting of a proposition, mirative qualifier and justification. Two additional meso-constructions emerge in Middle English, which is also the time when the Romance loan *marvel* joins the network, making it gain in schematicity, abstractness and productivity. In Present-day English, another Romance loan, *chance*, expands the mirative network even more. Throughout time, we observe node loss, node creation, constructional substitution and changes in frequencies of constructions. Theoretically, we propose a semiotic approach to diachronic construction grammar, arguing that multi-sign constructions invariably involve syntagmatic relations, which are themselves form-meaning pairings. This approach allows us to capture generalizations which would otherwise be missed.

Key words: grammaticalization, mirativity, semiotic approach, contact-induced change, network reconfiguration

**1. Introduction**

This paper approaches the grammaticalization of the Germanic noun *wonder* from the perspective of diachronic construction grammar, and argues for the existence of a mirative constructional network that was already established in Old English around the noun *wonder*, and attracted some nouns of Romance origin after these were borrowed into the language, such as *marvel* and *chance*. What is shared by these nouns is that they can function as “shell nouns”, i.e. they can be used to “characteriz[e] and perspectiviz[e] complex chunks of information which are expressed in clauses or even longer stretches of text” (Schmid 2000, 14). Crucially, when preceded by a negative quantifier (e.g. *no*, *little*, *not ... any*) the nouns can be used to characterize propositional contents in terms of mirativity (DeLancey 2001,

369), specifically, not as unexpected, but rather as ‘not surprising’ (cf. Simon-Vandenberg and Aijmer 2007, 37; Gentens et al. 2016), as in (1).

- (1) This wonderful circuit is always the arena for exciting races, so it is *no wonder* that Schumacher adores its daunting contours. (WB)

The example in (1), in which *no wonder* occurs in a main clause and the proposition in its scope (that is, the information it characterizes as ‘no wonder’) in a *that*-clause complement, expresses the speaker’s lack of surprise at Schumacher adoring the race circuit talked about. This mirative assessment is justified on the grounds of the circuit being the arena for exciting races, mentioned in the preceding clause (cf. Van linden, Davidse and Matthijs 2016, 385-386). The mirative qualifier, realized here by the predicative matrix containing *no wonder*,<sup>1</sup> thus not only expresses speaker attitude, but also serves the discourse function of establishing an anti-concessive relationship between the miratively qualified proposition and the justification offered for this mirative qualification (cf. Van linden, Davidse, and Matthijs 2016; Gentens et al. 2016). While a concessive relation denies expectation (Mann and Thompson 1988, 254), and consequently ‘surprise’ at a situation occurring ‘in spite of’ another situation that functions as an anti-cause and could have been expected to preclude it (Martin 1992, 199), the relation established by the mirative qualifier works in exactly the opposite way, hence the label ‘anti-concessive’. That is, the mirative qualifier emphasizes the expected relation between justification and proposition, and invites the hearer to infer a rhetorical causal relation between the two (Halliday and Hasan 1976, 240; Van linden, Davidse, and Matthijs 2016, 387).

We argue that in examples like (1), the matrix containing *no wonder* has grammaticalized into a mirative qualifier, but this analysis does not hold for all complementation patterns with *wonder*, e.g. (2), which we analyse as a ‘lexical’ use of *wonder*. We hereby follow Boye and Harder’s (2012) criteria for distinguishing between lexical and grammatical uses, according to which lexical uses are discourse-primary, whereas grammatical uses are discourse-secondary.

- (2) She kept looking at him in a way. He sipped his cup of tea. She was looking at him in that way again ... he finished his cup of tea ... Dear reader, it’s *a wonder* how one bed can take so much punishment. The springs groaned under the combined assault of two activated bodies. (WB)

In (2), the unexpectedness expressed by *it’s a wonder* is discourse-primary, which is shown by the fact that it can be ‘addressed’ by ‘how much of a wonder is it?’. In grammatical uses, as in (1) and (3) to (5), the expectedness is reanalysed as discourse-secondary. It can no longer be ‘addressed’ by queries such as ‘how much of a wonder is it?’. Instead, ‘no’ + *wonder* is here part of a mirative qualifier, commenting on the proposition in its scope in terms of its expectedness in view of another situation. That is, the contexts in which ‘no’ + ‘wonder’ noun grammaticalizes, or undergoes shifts from discourse primariness to discourse secondariness, involve a ‘rhetorical structure’ (cf. Mann and Thompson 1988; Visconti 2004; Waltreit 2012), consisting of a proposition, mirative qualifier and a justification.

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<sup>1</sup> Note that ‘matrix’ and ‘complement’ are used as descriptive labels here. As explained in Section 3, we believe that the syntagmatic relation in grammatical uses of ‘no’ + ‘wonder’ noun is one of scoping rather than complementation (dependency relation), but we keep these labels for convenience’s sake.

As shown in yet other instances of mirative constructions with ‘no’ + *wonder* in (3) to (5), such contexts for grammaticalization may well go beyond the structural unit of the sentence.

- (3) “All I want to do now is go home, soak in a hot bath, then crawl into bed. Alone. I’m exhausted.”  
“It’s *no wonder*, you’ve been here since early this morning,” Carole said. (WB)
- (4) Though kind enough in her way, she was an undemonstrative woman and it had never occurred to her that he was starved of love. *Small wonder* he’d felt so isolated. (WB)
- (5) He looked as sick as a parrot. *No wonder*, after what he’d been up to. (WB)

In (3), analysed as a mirative juxtaposition pattern in Gentens et al. (2016), the proposition assessed as unsurprising by Carole is made up of several sentences uttered by Carole’s interlocutor in the preceding discourse. In (4) and (5), the mirative qualifier is non-clausal but adverbial, of the disjunct type in (4) and an anaphoric adverbial in (5) (see Gentens et al. 2016). In (4), the justification precedes the sentence with mirative qualifier and proposition, whereas in (5) it is the proposition that precedes the mirative qualifier in a separate sentence, with the justification occurring in the same sentence as the mirative qualifier. All previous descriptions of mirative constructions with *wonder* feed into the present paper, which in turn casts them into a diachronic construction grammar approach. In this paper, then, the structural variation in (1) and (3) to (5) will be analysed as distinct meso-constructions, daughter nodes of a single mirative macro-construction. In addition, we will investigate slot-internal variation quantitatively – thus positing several micro-constructions.

While the gist of the paper is concerned with the emergence and development of the mirative taxonomic network centered around *wonder* (Section 4), described in terms of constructionalization and constructional change at different levels of schematicity, it also seeks to show that the network exerted an analogical pull on lexical items of Romance stock that were borrowed into the language in Middle English (Section 5). In (6), for example, the mirative qualifier contains the French loan *marvel*.

- (6) So drastic a series of atrocities worried even Lord Burleigh, who compared them with the much-condemned Spanish activities in the Low Countries: “as things be altered it is *no marvel* the people have rebellions here, for the Flemings had not so much cause to rebel by the oppression of the Spaniards, as is reported to the Irish people.” (WB)

In addition to *marvel*, which entered the language with a sense of ‘miracle’, which is also one of the earliest senses of *wonder* in Old English lexical uses, Section 5 will also home in on *chance*, which entered the language with a very different meaning, namely one of ‘fortuitous event’, and developed mirative uses only in Present-day English. But first we need to present the corpus data this study is based on (Section 2) and our critical approach to diachronic construction grammar (Section 3). More specifically, we will propose a semiotic approach to diachronic construction grammar, following the basic insight that grammatical structure codes semantic structure (cf. Langacker 1987 and McGregor 1997), thereby fine-tuning the notion of ‘pairing of form and meaning’ typically found in the definitions of a ‘construction’ (cf. Goldberg 1995). While one such pairing suffices for single-sign constructions, it does not for multi-sign or complex constructions, in which the component elements engage in syntagmatic relations with each other, which themselves constitute pairings of form and meaning.

## 2. Data collection

This study reports on the diachrony of three shell nouns, *wonder*, *marvel* and *chance*, two datasets of which have already been described in earlier work. For the development of *wonder*, we rely on the datasets used in Gentens et al. (2016) and Van linden, Davidse, and Matthijs (2016): exhaustive samples of the lemma *wonder* (in all its spelling variants) were taken from the historical corpora listed in Table 1. For the synchronic dataset, we took a random sample from *WordBanksOnline* (see also Table 1).

Subperiod of English	Corpus	Number of words (millions)	Total nouns extracted	Frequency per 1,000,000 words
Old English (750–1150)	York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE)	1.45	807	556.55
Middle English (1150–1500)	Penn-Helsinki Parsed Corpus of Middle English, 2 <sup>nd</sup> ed. (PPCME2)	1.16	228	196.55
Early Modern English (1500–1710)	Penn-Helsinki Parsed Corpus of Early Modern English (PPCEME)	1.79	97	54.19
Late Modern English (1710–1920)	Corpus of Late Modern English texts, Extended Version (CLMETEV)	14.97	905	60.45
Present-day English (1972–)	500-hit random sample from the British English subcorpora of Collins <i>WordBanksOnline</i> (totalling 243,363,457 words)			

Table 1: Overview of datasets for *wonder*

For *marvel* and *chance*, we collected historical data in the same way, as shown in Table 2, except that we did not use YCOE, for obvious reasons, and that we used additional data for the Early Modern English period from CEMET. Also, for *chance*, we took random samples of 250 hits for the last two subperiods of CLMETEV, as described in Van linden (2020). Note that the queries used also netted in verb forms, which had to be removed by hand; the table only includes nouns. For the synchronic datasets, we used the same subcorpora as for *wonder*, but we extracted an exhaustive sample for *marvel* (430 hits), from which only 110 examples showed shell-noun use and were taken to further analysis. For *chance*, we took two random samples of 250 tokens each, one from the spoken and one from the written British English subcorpora (cf. Van linden and Brems 2020).

Subperiod of English	Corpus	Number of words (millions)	noun <i>marvel</i>		noun <i>chance</i>	
			n	N	n	N
Middle English (1150–1500)	Penn-Helsinki Parsed Corpus of Middle English, 2 <sup>nd</sup> ed. (PPCME2)	1.16	78	67.24	7	6.03
Early Modern English (1500–1710)	Penn-Helsinki Parsed Corpus of Early Modern English (PPCEME) (1500-1710)	1.79	37	20.67	135	75.42
	Corpus of Early Modern English texts (CEMET) (1570-1710)	3.04	32	10.53	249	81.91

Late Modern English (1710–1920)	Corpus of Late Modern English texts, Extended Version (CLMETEV)	14.97	85	5.68	674	45.02
Present-day English (1972–)	British English subcorpora of Collins WordBanksOnline	243.36	Exhaustive sample of 430 hits	250 hits spoken + 250 hits written		

Table 2: Overview of datasets for *marvel* and *chance* (n: absolute frequency; N: normalized frequency per 1,000,000 words)

### 3. Theoretical preliminaries: diachronic construction grammar meets Cognitive Grammar and Semiotic Grammar

Before we discuss the diachrony of the mirative constructional network in Sections 4 and 5, we take the time to argue for our specific approach to diachronic construction grammar, which we propose to call semiotic diachronic construction grammar.

In a first step, we evaluate criticisms targeting a distinction central to diachronic construction grammar, i.e. the distinction between constructionalization and constructional change. Traugott and Trousdale’s (2013, 22) well-known definition says that “[c]onstructionalization is the creation of form<sub>new</sub>-meaning<sub>new</sub> (combinations of) signs. It forms new type nodes, which have new syntax or morphology and new coded meaning, in the linguistic network of a population of speakers.” Constructionalization typically involves an increase in schematicity, for instance in that “schemas themselves may expand, i.e. may come to have more members.” (Traugott and Trousdale 2013, 116). Constructional change, in turn, is defined as “a change affecting one internal dimension of a construction. It does not involve the creation of a new node” (Traugott and Trousdale 2013, 26). Hilpert (2014, 16), on the other hand, states that “[c]onstructional change selectively seizes a conventionalized form-meaning pair of a language, altering it in terms of its form, its function, any aspect of its frequency, its distribution in the linguistic community, or any combination of these”. The last part “or any combination of these” makes the distinction with constructionalization, as defined by Traugott and Trousdale (2013), fuzzy. Constructional change is typically associated with pre- or postconstructionalization changes (Traugott forthcoming).

The distinction between constructionalization, also termed node creation or node emergence, and constructional change, equated with node-internal change by Smirnova and Sommerer (2020: 3), has recently been criticized on theoretical as well as on empirical grounds. Theoretically, for instance, it has been put forward that “constructionalization is problematic because it conflicts with de Saussure’s concept of a sign” (Smirnova and Sommerer 2020, 12). When a construction is affected at one of its poles only, it should strictly speaking count as an instance of constructionalization, since “a new construct of this construction would no longer be sanctioned by the previously existing construction”, Smirnova and Sommerer (2020, 12) argue. Another shortcoming of the distinction, as defined by Traugott and Trousdale (2013), is that it is applied across the board to phenomena at different levels in the taxonomic organization of constructions, whereas the emergence of new construction types (low in the network) and new constructional schemas (higher up in the network) follow very different dynamics (Smirnova and Sommerer 2020, 17). It is hence little wonder that the distinction between constructionalization and constructional change has also proven hard to maintain in actual empirical

studies. In line with Smirnova and Sommerer (2020), we will use ‘constructionalization’ as a cover term for Traugott and Trousdale’s (2013) notions of constructionalization and constructional change.

In a second step, we evaluate how the formal pole of complex constructions has been treated in constructionist approaches, whether synchronic or diachronic. In general we find that the formal relations that are typically posited in constructionist approaches to multi-sign constructions (e.g. the resultative construction, the partitive construction) are filler-slot relations and sequential relations reflecting the linear order of the slots-with-fillers, represented by the juxtaposition of category labels (Diessel 2019; Smirnova and Sommerer 2020, 3). Traugott (2008), in her discussion of the grammaticalization of NP *of* NP patterns, for instance, indeed reduces the formal pole of the construction studied to the surface structure of NP1 *of* NP2. As the surface structure of such expressions as *a bit of* does not change in the shift from lexical to grammatical use, she thus only notes that there is a semantic change in the sense that there is the semanticization of an inference of quantity. However, such an account glosses over the circumstance that the relation between the size noun *bit* and the *of*-phrase undergoes a crucial shift of head and modifier role, with *a bit of* as a quantifier modifying the head noun following *of*, as argued in Brems (2011). More generally, case-studies like Brems (2011) and Davidse, Van linden, and Brems (2022) show that shifts in syntagmatic relation between the component elements of a complex construction are crucial to grammaticalization, or language change more generally, and – we believe – need to be accounted for by any theoretical framework, also when used to describe synchronic phenomena. At first sight, Croft’s (2001) model of Construction Grammar seems promising in this respect in that it includes syntax as a third subfeature for the form side of constructions in addition to morphology and phonology. However, within his radical approach to syntactic relations, Croft argues for the non-existence of syntactic relations, that is, relations between the various constituents of a construction. The only relations that exist are roles, that is, relations between a constituent and the construction as a whole. He (2001, 203) furthermore states that “the representation of the syntactic structure of a construction should not include any syntactic relations between the elements that make it up.” We beg to disagree.

This brings us to our approach to diachronic construction grammar, or construction grammar more generally, which we argue needs to be enriched with the description of (changes in) syntagmatic relations between the elements making up a construction. Rather than relegating these relations to the form side of a construction, we side with semiotic approaches such as Langacker’s (1987) Cognitive Grammar and McGregor’s (1997) Semiotic Grammar in that these relations are form-meaning pairings themselves (see also Davidse, Van linden, and Brems 2022), of a highly schematic nature. More specifically, in the emergence of the mirative network within the complementation meso-construction there is a fundamental switch, we argue, from a complementation relation between the two primary structural units (Figure 1), in the sense of Langacker (1987), to a scoping relation (Figure 2), in the sense of McGregor (1997).

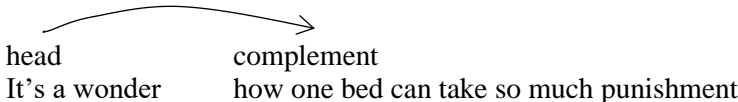


Figure 1: Complementation relation in example (2)

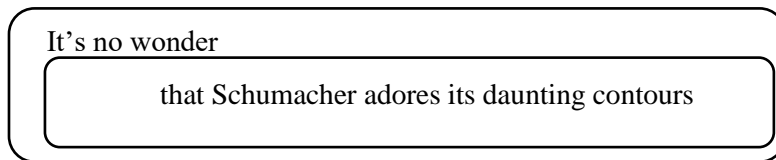


Figure 2: Scoping relation in example (1)

Lexical uses convey representational meaning and show a complement relation between matrix and complement, which, following Langacker (1987, 309) rather than traditional accounts, we do not conceive of as a constituency relation, but rather as a dependency relation in which the head (the matrix as a whole) is conceptually dependent on the complement, i.e. it is semantically incomplete without it. Lexical uses like (2) can in fact be analysed as factive complement constructions (Davidse, Van linden, and Brems 2022) in the sense that the embedded proposition is presupposed (Kiparsky and Kiparsky 1971).<sup>2</sup> Grammatical, mirative uses, by contrast, convey interpersonal meaning and show a ‘scoping’ relation between ‘matrix’ and ‘complement’. According to McGregor (1997, 210) scoping, as a syntagmatic relation, involves a scoping element and a unit scoped over, where “one unit ‘shapes’ the other, indicating how it is to be taken or viewed by the addressee”, in our case as a mirative qualification. The head-dependent asymmetry associated with lexical uses (Figure 1) is thus reversed in the interpersonal modification structure in Figure 2, in which the proposition or scopal domain becomes the primary unit, which is qualified by the mirative modifier (cf. Davidse, Van linden, and Brems 2022).<sup>3</sup>

Interestingly, McGregor (1997, 64-70) states that interpersonal modifiers can be positionally flexible; they can occur at the boundaries of the scopal domain or they can interrupt it, making it discontinuous. As we will see in Section 4, there are some mirative meso-constructions in which the mirative qualifier indeed interrupts the proposition. Another interesting feature of scoping relations is that their domain “may vary considerably and need not be specifiable by grammatical rules” (McGregor 1997, 68); it may even extend beyond sentence boundaries. This feature implies that patterns involving juxtaposition (cf. (3)) and anaphoric adverbials (cf. (5)), can be given the same syntagmatic analysis as the patterns in (1) and (4): they also involve a scoping relation between mirative qualifier and proposition. Put differently, the syntagmatic relation of scoping is a form-meaning pairing that is general enough to fit the mirative macro-construction (and many other in the constructicon), which is constituted by the anti-concessive discourse schema.

In addition to the relation between the mirative qualifier and proposition, the macro-construction also encompasses, at a higher level of structural assembly, a relation between the justification and the whole of mirative qualifier and proposition. For this relation we posit a syntagmatic relation of the linking type, whose signified is the textural semiotic (cf. McGregor 1997, 75); linking relations provide texture to stretches of language. Specifically, we argue that there is a connective relation (McGregor 1997, 71) between the justification and the mirative assessment applied to the proposition; this relation can be realized by very distinct linguistic devices, such as conjunctions, prepositions, or linking adverbs.

<sup>2</sup> This does not mean that factive complements cannot be modalized. As argued by Gentens (2020, 135), factive complements “can contain modal positions that relate to the actual speaker, or to an echoed speaker” even when these do not coincide with the represented speaker in the main clause (2020, ch. 4).

<sup>3</sup> Note that while the complementation relation in Figure 1 is a part-part or dependency relationship, the scoping relation in Figure 2 is a whole-whole relationship. Although it is more convenient to state that the scoping relation obtains between the scopal domain and the interpersonal modifier, it in fact obtains between the scopal domain (the inner box in Figure 2) and the whole of interpersonal modifier and scopal domain (the outer box with its contents in Figure 2) (McGregor 1997, 65-66).

In Sections 4 and 5, we will focus on the coding of the mirative qualifier and the proposition at the expense of that of the justification.

#### 4. The emergence and development of a mirative network around the central *wonder* node

This section will discuss the chronology of the emergence of the mirative network in Old English, in which constructions with ‘no’ *wonder* constitute the central node, as well as its further expansion in subsequent historical periods. The developments will be described at different levels of schematicity.

##### 4.1 The emergence of a mirative network in Old English

‘No’ *wonder* shows lexical and grammatical uses from Old English onwards. Table 3 gives an overview of the (changing) frequencies of the lexical and grammaticalized uses of (‘no’) *wonder* constructions for Early and Late Old English. Although we hold that in the grammaticalized uses there is no longer a complement relation between the ‘matrix’ and the ‘complement’, as laid out in Section 3, we will nevertheless keep the conventional terms “matrix” and “complement” to refer to the basic units of the grammaticalized examples so as to safeguard intelligibility (see also Boye and Harder 2007, 2012).

Old English subperiods	Lexical use: Positive polarity						Grammaticalized/mirative use: ‘no’ <i>wonder</i> ( <i>nan</i> , <i>hwilc</i> )								Total	
	complementation		other		Total		complementation		juxtaposition		hypotaxis		Total			
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
850-950	8	27.6	5	17.2	13	44.8	7	24.1	9	31.0	0	0.0	16	55.2	29	100
950-1150	28	33.3	18	21.4	46	54.8	31	36.9	6	7.1	1	1.2	38	45.2	84	100
Total	36	31.9	23	20.4	59	52.2	38	33.6	15	13.3	1	0.9	54	47.8	113	100

Table 3: Distribution of Old English lexical and grammatical uses of (‘no’) *wonder* (based on Van Linden et al. 2016: 390, 404)

The mirative network emerges when structures with (‘no’) *wonder* come to acquire discourse-secondary, grammatical uses, that is, when speakers use them to express their lack of surprise with respect to a particular propositional content *in view of* a specific circumstance (see Section 1). As can be seen in Table 3, there are three types of construction that can be used to encode this combination of attitudinal and discursive meanings, viz. complementation, juxtaposition and hypotactic structures. Since these construction types still show considerable internal variation, as detailed below, we posit that these constitute distinct meso-constructions, each having a number of micro-constructions at a lower level in the network. We regard three meso-constructions as “allostructions” (Capelle 2006), i.e. as sister constructions that are different in form but very similar in meaning. The mirative macro-construction, in turn, is highly schematic and consists of three units arranged in an anti-concessive discourse schema, i.e. a mirative qualifier comprising ‘no’ *wonder*, which semantically scopes over a proposition, and a justification denoting a state-of-affairs in view of which the proposition is unsurprising. At the same time, we posit the syntagmatic relationship of scoping between mirative qualifier and proposition and a connective relation between justification and the whole of mirative qualifier and proposition (cf. Section 3). Below, we will discuss the various nodes in the mirative taxonomic network, in which all vertical links are inheritance links of the “instance” type as defined by Goldberg (1995, 79-80). That is, all constructs in the network are argued to have inherited the discursive rhetorical schema including a



mirative qualifier, a proposition and justification from the macro-construction, as well as the two types of syntagmatic relation entertained by them.

The first meso-construction we distinguish features the mirative qualifier and proposition in a single sentence, that is, in a matrix and complement respectively. Interestingly, this meso-construction came about by a reanalysis from lexically used complementation patterns. In such lexical uses, the complementation patterns typically refer to wonders and miracles in religious contexts, as in (7) below.

- (7) gif we þonne sceawiaþ & gehycgað þa ungesewenlican, butan tweon us byþ cuð, þæt þæt is *mare wundor*, þæt man mid þy worde þære halgan lare & mid þy fultume haligra gebeda þone synfullan man gecyrre fram his synnum, þonne man þone deadan lichaman eft awæcce.  
'If we then consider and think about invisible [things], it is clear to us without a doubt that that is more wonder, that one turns the sinful man away from his sins with the word of the holy lore and with the help of holy prayers than that one awakens the dead body again.'<sup>4</sup> (YCOE 1050-1099 GDPref and 3 (C) 17.217.5)

*More wonder* in (7) invites the query of how much wonder it is that one turns a sinner away from their sins by teaching them the Christian faith and by praying, and is hence discourse-primary and addressable (Boye and Harder 2007, 2012). As explained in Section 3, we regard the syntagmatic relation between matrix and complement as one of dependency, more specifically a complementation relation, with the head being 'conceptually dependent', i.e. semantically incomplete. It is semantically completed by the complement that enters into a valence relation with it (Langacker 1987, 277f).

The reanalysis that led from lexical to grammatical, mirative, uses within such patterns with embedded complement clauses occurred in negative contexts only, which can hence be interpreted to have triggered the grammaticalization of expressions with *wonder*. The lexical uses were reinterpreted as constituting one whole with the 'no' *wonder* part functioning as a mirative qualifier that scopes over the proposition coded in the complement. The latter is qualified as being unsurprising given a justification that is typically present or inferable from the context, as in (8).

- (8) Nu cwæð se halga Beda þe ðas boc gedihte, þæt hit *nan wundor* nys, þæt se halga cynincg untrumnyse gehæle nu he on heofonum leofað, for ðan þe he wolde gehelpan, þa þa he her on life wæs, þearfum and wannhalum, and him bigwiste syllan.  
'Now said Bede the Holy, who wrote the book, that it is no wonder that the holy king heals illnesses now that he lives in heaven, as he wanted to help the poor and the sick and give them food while he was here during his lifetime.'<sup>5</sup> (YCOE 1000-1010 ÆLS [Oswald] 272)

In (8) the holy king (i.e. King Oswald of Northumbria) healing illnesses now that he lives in heaven is presented as unsurprising given the fact that he already did so when he was still alive.<sup>5</sup> That is, the main point in Bede's message is that King Oswald heals illnesses (and also spiritual weaknesses) even after having died (which need not surprise us). A query by means of *really?* is as such not impossible, but

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<sup>4</sup> All translations are our own.

<sup>5</sup> Note that this example has been misinterpreted in Gentens et al. (2016, 132-133), in which the holy king is mistakenly identified as Jesus Christ, and the clause introduced by *nu* is wrongly analysed as the justification whereas it is part of the proposition that is miratively qualified, with the justification in turn rendered in the clause introduced by *for ðan þe*. We thank the guest editors for drawing our attention to this error.

what is crucial is that it does not target the matrix with *it's no wonder*, but rather the proposition in the complement clause: does the holy king really heal weaknesses (even) after having died?

Importantly, there is also reanalysis in terms of the syntagmatic relation between matrix and complement, which is reinterpreted from a head-complement relation to a scoping relation between an interpersonal modifier and a scopal domain (see Section 3). Compared to head-complement patterns, the syntagmatic relation is no longer a part-part relationship, but a whole-whole relationship, obtaining between the scopal domain on the one hand (the ‘complement’) and the whole of scopal domain and mirative modifier (the ‘matrix + complement’) on the other (cf. McGregor 1997, 64-70).

The emergence of this meso-construction hence presents a case of node creation in the mirative network. It even rates as constructionalization in Traugott and Trousdale’s (2013, 22) sense, with both a new meaning and new formal properties pairing up into a new node.

This meso-construction has three slots that allow for variation, i.e. matrix type, negative polarity marker and complementizer, combinations of which yield various micro-constructions.<sup>6</sup> In terms of the latter variable, for instance, the complementizer *peah/peh/ðeah* ‘though’ (cf. (9)) is the most frequent one, observed in 25 instances out of 38; the complementizer *þæt/ðæt* ‘that’ (cf. (8)) is found in 12 examples, and *gif* ‘if’ in just one example, rendered in (10).

- (9) *Hwelc wundor is ðæt, ðeah* ðæs modes læcas behealden ðas lare, ðonne ðæs lichoman læcas habbað swelce gesceadwisnesse on hira cræfte?  
 ‘[the master will nevertheless crush the boldness in the over-cheerful so that the oppression of fear that comes from the flow of evil blood does not wax in them.] What wonder is that, that the physicians of the mind keep to this method of instruction (‘lore’), when the physicians of the body have such discrimination power in their craft?’ (YCOE 890-899 CP 61.455.25)
- (10) *Efne þu gesihst þone mannan beforan ðe, ac on þære tide þe ðu his neb gesihst þu ne gesihst na his hricg. ... Hwylc wunder is gif* se ælmihtiga God is, unasecgendlic, & unbefangennlic.  
 ‘Likewise you see the man before you, but at the time that you see his nose, you don’t see his back. ... What wonder is (it) that the almighty God is indescribable and unintelligible?’ (YCOE 990-1010 ÆCHom I, 20 341.173, cited in Van linden, Davidse, and Matthijs (2016, 398))

At the same time, the constructs in (9) and (10) further illustrate the variation found in the matrix type, with (9) showing cataphoric *ðæt* as subject, and (10) having no surface subject at all, while (8) above exemplified the third option, viz. subject *hit*.<sup>7</sup> They also bear out variation in the coding of negative polarity, which can take the form of *ne ... nan(ig)*, as in (8), rhetorical *hwilc/hwelc* ‘what’, as in (9) and (10), or quantifier *micel* ‘much’ in interrogative sentences, with ‘how much wonder is it?’ having the rhetorical effect of implying that it is ‘no wonder at all’ (see Van linden, Davidse, and Matthijs 2016, 397). As detailed in Van linden, Davidse, and Matthijs (2016, 395-398), rhetorical questions with *hwilc* or *micel* premodifying *wundor* served as bridging contexts in the development from lexical uses, as in

<sup>6</sup> There is even a fourth variable, the copula, which we do not take into consideration here. The copular verb can be a form of *wesan* (e.g. *is* in (9)), *beon* (e.g. [...] *La, hwylc wundor bið peah se mennisca deofol synfullum mote heardlice derian* [...] ‘Lo, what wonder is (it) that the human devil is allowed to harm the sinful harshly?’ (YCOE 1050-1150 WHom5 88)), or *þincan* (e.g. [...] *ne ðincð me æac nan wundor peah þu si unrot forðam* ‘It does not seem a wonder to me that you are sad because of this’ (YCOE 1140-1160 Solil 1 34.14)).

<sup>7</sup> The same variation (*ðæt/hit/zero* subject) is found with adjectival matrices including a copular verb and an adjective such as *god* ‘good’ or *rihtlic* ‘fitting’ in Old English. For a detailed discussion of how the dependent clauses in such constructions have been dealt with in the literature, see Van linden (2012, 129-135).

(7), to grammatical uses, as in (8) to (10). The constructs in (8) to (10) all come from homiletic and apologetic writings about the Christian faith, which served to explain and defend the more difficult points of the faith. In (10), for instance, Ælfric argues that of course we cannot describe or understand God if we cannot even behold a physical human body from two angles simultaneously. The formal variation in matrix types and expression of negative polarity is quantified in Table 4 below.

The second meso-construction in Old English is a sister of the first one, and inherits the same anti-concessive discourse schema from the macro-construction. At the formal pole, the mirative qualifier and the proposition do not form a single complex sentence but are simply juxtaposed clauses, as in (11). However, as explained in Section 3, we can still posit the syntagmatic relation of scoping between the mirative qualifier and the proposition. In addition, but not defining of the mirative macro-construction, in (11) there is also a far ‘looser’ cohesive relation in terms of anaphora.<sup>8</sup>

- (11) sie eorðe is dryge & ceald, & þæt wæter wæt & ceald. Sie lyft þonne is genemned þæt hio is ægþer ge ceald ge wæt ge wearm. Nis hit *nan wunder*, forþam ðe hio is gesceapen on þam midle betwux þære drygan & þære cealdan eorþan & þam hatam fyre.  
 ‘The earth is dry and cold, and (the) water wet and cold. The air is then mentioned, that it is either cold, or wet or warm. It is no wonder, for it is created in the middle between the dry and cold earth and the hot fire.’ (YCOE 940-960 Bo 33.80.5)

The mirative construct in (11) shows the surface subject *hit*, which anaphorically refers to the proposition rhetorically presented as non-surprising or expected, namely that the air is either cold, or wet or warm, rendered in the preceding sentence. The justification for this mirative appraisal is given in the *forþam*-clause: God created the air in between the (dry) land and the (wet) sea (both of which are cold) on the one hand and the hot sun on the other; this explains why the air has at times properties of all three neighbouring elements.

More generally, the second meso-construction features the proposition in a separate sentence followed by a sentence which retrospectively qualifies the proposition as ‘non-surprising’. This second sentence is always complex in Old English, consisting of a copular matrix encoding the mirative evaluation by predicate nominal *no wonder*, and a subordinate clause expressing the justification for the mirative appraisal, very often introduced by the connector *forþam*. Just like the main clause of the first meso-construction, the copular clause may be either subjectless or have subjects *it*, e.g. (11), or *that* (e.g. (12), referring anaphorically to the preceding proposition. The variation in matrix type of the first two meso-constructions is quantified in Table 4.

Like the first meso-construction, the second also shows variation (though to a lesser degree) in the slot dedicated to the coding of negative polarity (see Table 4). All (but one) constructs show the negative determiner *ne... nan(ig)*, as in (11); the only exception is in (12) below; note that in (12) the mirative qualifier occurs in a simple sentence rather than a complex one, more specifically a rhetorical question.

- (12) Gregorius him andswarode: soðlice þa þe Gode gefeolað mid estfullum mode, þonne hwylc neod beþearf, hi magon gegearwian þa foretacnu; hwylum hi ægþer gewuniað to donne, þæt þa wundru,

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<sup>8</sup> Note that in Gentens et al. (2016, 140-141) this cohesive tie is the only syntagmatic relation posited between the mirative qualifier and proposition for the juxtaposition pattern, whereas we now believe that at the same time there is also a scoping relation between these two units.

þe hi wyrcað, hwilum hi þa begytað mid heora bene, hwilum eac hi gedoð of heora mihte. *Hwilc wundor* is þæt? We witon, þæt Iohannes se apostol cwæð ...

‘[Peter wants to know whether the holy man is able to perform wonders through the power of his prayers or sometimes also with the single power of his good will.] Gregory answered him: “Truly, they who adhere to God with a devoted mind, they are able to perform wonders if any need urges. Sometimes they are wont to say/do that the wonder that they perform, that they sometimes work those through their prayers, and sometimes they also work them though their (own) power. What wonder is that? We know that John the disciple said ...” (YCOE, 1050-1099 GD 2 (C) 30.161.16)

In his answer to Peter’s question, Gregory states that believers can work wonders both through their prayers and through their own power, and he then qualifies this as non-surprising. The justification for Gregory’s mirative qualification is elaborated in the ensuing discourse not excerpted here: those who believe in God are God’s children, and hence their power is also God’s power (and God can of course perform wonders).

The discussion above mentioned two variable slots shared by the two meso-constructions that allow for variation, and hence give rise to several micro-constructions, i.e. matrix type and negative polarity marker. Table 4 cross-tabulates the values observed for these variables in the first two meso-constructions.

Old English	Meso-cxn 1: COMPLEMENTATION				Meso-cxn 2: JUXTAPOSITION		
	<i>ne... nan(ig)</i>	rhetorical <i>hwilc</i>	rhetorical <i>much</i>	TOTAL	<i>ne... nan(ig)</i>	rhetorical <i>hwilc</i>	TOTAL
subjectless	4	10	0	14	1	0	1
phoric <i>þæt/ þis</i>	3	13	2	18	9	1	10
<i>hit</i>	6	0	0	6	4	0	4
TOTAL	13	23	2	38	14	1	15

Table 4: Variation in matrix type and negative polarity marker in two mirative meso-constructions in Old English

The diachronic dimension that is lacking in Table 4 is provided by Table 3. While the first meso-construction increases in relative frequency from 24% (of all the corpus examples in which *wunder* is used as a shell noun) in 850-950 to 37% in 950-1150, the second meso-construction decreases in frequency from 31% in 850-950 to 7% in 950-1150. Following Hilpert (2014), these changes can be seen as constructional changes.

For the third meso-construction in Old English, the data contain just one construct, given in (13), which involves hypotaxis. The construction features the mirative qualifier and the proposition in a single complex sentence, just like the complementation construction, but the mirative qualifier is expressed by a parenthetical *as*-clause that interrupts the proposition, which itself is structurally the matrix of the sentence. In traditional terms, the mirative qualifier bears a hypotactic relation to the proposition.

- (13) Wæs he gefeonde, swa hit *nænig wundor* is, denunge fota ðara ðe he swa micelre tide benumen wæs

‘Was he rejoicing, as it is no wonder, at the service of the feet, which he was deprived of for such a long time.’ (YCOE 1050-1099 Bede 5 2.390.11)

Just like its two sister meso-constructions, this third one inherits the same anti-concessive discourse schema from the macro-construction. In (13), the relative clause contains the justification of the mirative assessment, which sets up the following line of argument: ‘since he had been deprived for so long of the service of the feet, of course he was rejoicing at it’. In syntagmatic terms, we argue that this meso-construction features both a scoping and a cohesive relation between mirative qualifier and proposition, just like the second one. The subject pronoun *hit* in the hypotactic clause refers to the proposition in the matrix (cohesive tie), and the hypotactic clause as a whole functions as a mirative modifier scoping over the matrix. In terms of micro-constructions, the data contain just one, having a matrix with subject *hit* and negative polarity marker *nænig*, but we can of course imagine that many more existed but were not recorded in writing.

To conclude, Old English constructs featuring the noun *wonder* can be arranged in a mirative taxonomic network with distinct levels of schematicity, for which we here used Traugott’s (2008) labels of macro-, meso- and micro-constructions, which all share the same anti-concessive discourse schema, which in turn takes part in two more schematic constructions, namely those of the syntagmatic relations of scoping and of connective linking.

#### 4.2 The development of the mirative network from Middle English up to now

Middle English witnesses the emergence of new meso-constructions in the mirative network, and at the same time the loss of some of its nodes. The new meso-constructions are similar to each other in that their mirative qualifiers are not clausal but adverbial in nature, consisting of a (near-)negative determiner and the noun *wonder*. These adverbials come in two subtypes, each of which is analysed as a meso-construction here, namely disjuncts (14) and anaphoric adverbials (15).

- (14) And the lordys before wretyn fledde, the substance in to Schotlond with the Kynge Harry and Qene Margarete, and sone the Prynce with hym, fulle of sorowe and hevynys, *no wondyr*.  
‘[After a fierce battle in which many knights and commoners died.] And the before-written lords fled, the majority into Scotland with king Harry and Queen Margaret, and soon the Prince with them, full of sorrow and heaviness, no wonder.’ (PPCME2, 1420-1500) (Gentens et al. 2016: 137)
- (15) I ... caste myn vnclene loue on irþely þyngges; I was wandryngge aboute wit Caym acursed: Et quicumque inuenerit me, occidet me – And who þat euere mete wit me, haad power to sle me. And *no wonder*; for what scholde a wrecche creature doo, forsaken of his creatour?  
‘I ... cast my unclean love on earthly things; I was wandering about, cursed with Cain: *Et quicumque inuenerit me, occidet me* – And whoever met me had the power to slay me. And no wonder, for what should a wretched creature do, forsaken by his Creator?’ (PPCME2 c1400)

In (14), the mirative qualifier occurs as a parenthetical in sentence-final position, scoping over the preceding apposition ‘full of sorrow and heaviness’, which has ‘the Prince’ as its anchor; the anti-concessive line of argument can be paraphrased as ‘of course the Prince was very sad after having lost

many knights and commoners’. Just like in the other meso-constructions, the mirative qualifier bears the syntagmatic relation of scoping to the whole of qualifier and proposition. In (15), the anaphoric adverbial retrospectively qualifies the proposition in the preceding sentence (‘anyone can murder me’), but is itself part of a separate complex sentence containing the justification, similarly to the mirative qualifier in the juxtaposition meso-construction (cf. (12)). As the adverbial meso-constructions have different formal realizations than the meso-constructions emerged so far, but show identical functions or meanings, we regard these two new nodes as allostructions of the already established meso-constructions within the mirative network.

Data from subsequent historical periods show that no further meso-constructions will join the network centered around ‘no’ *wonder*. However, they do point to changes in relative frequency, as presented in Table 5. Table 5 shows that the three Old English meso-constructions gradually lose ground to the adverbial meso-constructions, especially to the disjunct type, which chalks up about 38% of the Present-day grammatical uses of structures with ‘no’ *wonder*. The same information is represented in a column chart in Figure 3. Table 5 also includes the absolute frequency (n) of lexical shell-noun uses of *wonder*, from which we can gather that mirative uses predominate as of Early Modern English.

Constructs with <i>wonder</i>	Meso-cxn 1: complementation		Meso-cxn 2: juxtaposition		Meso-cxn 3: hypotaxis		Meso-cxn 4: disjunct adverbial		Meso-cxn 5: anaphoric adverbial		Total grammatical uses		Lex n
	n	%	n	%	n	%	n	%	n	%	n	%	
1150-1350	11	64.7	4	23.5	2	11.8	0	0.0	0	0.0	17	100	27
1350-1500	14	53.8	8	30.8	2	7.7	1	3.8	1	3.8	26	100	31
1500-1710	11	84.6	0	0.0	0	0.0	1	7.7	1	7.7	13	100	10
1710-1780	52	68.4	0	0.0	1	1.3	19	25.0	4	5.3	76	100	6
1780-1850	44	53.7	1	1.2	1	1.2	17	20.7	19	23.2	82	100	14
1850-1920	38	40.9	2	2.2	0	0.0	36	38.7	17	18.3	93	100	10
PDE	179	41.9	13	3.0	0	0.0	164	38.4	71	16.6	427	100	73

Table 5: Frequency changes per mirative meso-construction in ME to PDE datasets with *wonder*

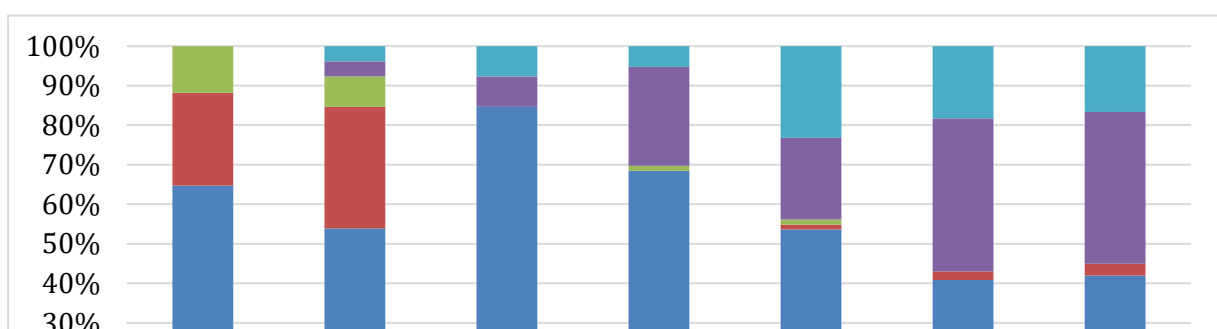


Figure 3: Relative frequencies of the mirative meso-constructions in ME to PDE datasets with *wonder*

We now move on to discuss each meso-construction individually, and describe how micro-constructions got lost or emerged. The first meso-construction, accounting for 42% of the Present-day English mirative constructs (Table 5), is most severely affected by the general loss of subjectless constructions in Middle English (Denison 1993) and the entrenchment of the ‘extraposition’ construction (see Van linden 2012, 129-135; Davidse and Van linden 2020).<sup>9</sup> As can be seen from Table 6, micro-constructions with a subjectless matrix disappear after 1350, and those with cataphoric ‘that’ or ‘this’ are no longer recorded after Old English (compare with Table 4 above). Two new sets of micro-constructions appear in the data, one with elliptical matrices in Late Middle English, cf. (16), and one with existential matrices in Late Modern English, cf. (17).<sup>10</sup>

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<sup>9</sup> Extraposition constructions (cf. (1) and (2)) are constructions in which a predicative relation between *it* and a noun phrase (or adjective) is complemented by a clause that occurs in post-verbal position (Van linden 2012: 128). As argued in Davidse and Van linden (2020), the label ‘extraposition’ is a misnomer as we believe that the construction does not involve any ‘movement’ of the complement clause. While in Old English anticipatory *it* was often absent (see Section 4.1), it became the rule in the course of the Middle English period (see Van linden (2012, 134) for comparable diachronic data on adjectival matrices).

<sup>10</sup> One more matrix type emerges in Middle English, represented by just one construct (i), with a possessive matrix and a first-person subject. This construct has not been included in Tables 5 to 8.

(i) Sothely thare-fore þe nam of Ihesu es helefull, & nedys by-houys be lufed of all couaytande saluacyone. He couaytes wele hys saluacyone þat kepis besyly in hym þe name of Ihesu. Sothely I haue *na wondyr* if þe temptid fall þat puttes noghte þe name of Ihesu in lastande mynde.

‘Truly therefore the name of Jesus is salvific and needs necessarily to be loved by all who covet salvation. He covets his salvation well who keeps the name of Jesus diligently in him(self). Certainly, I have no wonder that the tempted fall, (those) that do not put the name of Jesus in lasting mind.’ (PPCME c1440 ?Rolle *Treatises* [Thrn] 5) (Davidse & Van linden 2014)

Matrix type in meso-cxn 1	EME 1150-1350	LME 1350-1500	EModE 1500-1710	LModE			1993- PDE
				1710- 1780	1780- 1850	1850- 1920	
<i>∅ is (no) wonder</i>	4	0	0	0	0	0	0
<i>it is (no) wonder</i>	7	9	9	38	15	16	128
<i>there is (no) wonder</i>	0	0	0	0	1	1	3
Elliptical matrix	0	5	2	14	28	21	48
TOTAL	11	14	11	52	44	38	179

Table 6: The development of matrix type in the complementation meso-construction

- (16) if þe irþe tremble and quake, *what wundur þey þu tremble?*<sup>11</sup>  
‘If the earth trembles and quakes, what wonder that you tremble?’ (PPCME2, 1420-1450)  
(Gentens et al. 2016: 136, ex. (10))
- (17) Ah madam! Brought up as I have been brought up, there is *little wonder* I should see the danger of an high education, let me be ever so ignorant of everything else. (CLMETEV, 1780-1850)

Further loss of nodes is linked to negative polarity marking. Again, the network is impacted by more general language changes, this time the development of negation, with preverbal negative particles going lost in Middle English (Mazzon 2004), as can be seen from Table 7. Micro-constructions with rhetorically used *hwilc?* (see Table 4) undergo a node-internal change to interrogative *what?* (observed as of Middle English, cf. (16)), which rates as “constructional substitution” in the sense of Sommerer (2020). Arguably, the replacement of *ne ... na(n)* by *no* can also be regarded as constructional substitution. In Late Modern English new micro-constructions emerge with near-negative quantifiers *small* and *little* (see (17)).

Negative polarity in meso-cxn 1	EME 1150- 1350	LME 1350-1500	EModE 1500-1710	LModE			1993- PDE
				1710- 1780	1780- 1850	1850- 1920	
<i>ne ... na(n)</i>	5	0	0	0	0	0	0
<i>ne ... na(n) much</i>	4	0	0	0	0	0	0
<i>no</i>	0	10	9	43	37	18	131
<i>no(t) great</i>	0	1	1	0	1	0	0
<i>not/hardly any</i>	0	0	0	1	0	1	2
<i>little/small</i>	0	0	0	0	1	7	41
<i>(the) less</i>	1	0	0	0	0	1	0
<i>without</i>	0	0	0	0	0	1	0
rhetorical <i>what?</i>	1	3	1	6	4	7	0
polar rhetorical question	0	0	0	2	1	3	5
TOTAL	11	14	11	52	44	38	179

Table 7: The development of negative polarity marking in the complementation meso-construction

<sup>11</sup> In (16), *þey* is a spelling variant of the complementizer *though*.



A final wave of node loss within the complementation meso-construction involves complementizer *though*, which no longer appears in micro-constructions beyond the Middle English period, as indicated in Table 8. Complementizer *if* takes over in Early Modern English, but in Late Modern English *that* becomes predominant. Here again, a more general tendency, namely *that*-omission increasing rapidly as of Early Modern English (Rissanen 1991; Finegan and Biber 1995), causes the creation of new micro-constructions, i.e. those with zero complementizer *that*, also illustrated in (17) above.

Complementizer in meso-cxn 1	EME 1150-1350	LME 1350-1500	EModE 1500-1710	LModE			1993- PDE
				1710-1780	1780-1850	1850-1920	
<i>that</i>	1	1	1	35	32	32	116
zero	0	0	2	11	4	1	60
<i>though</i>	6	7	0	0	0	0	0
<i>if</i>	3	6	8	6	8	5	3
V-1 conditional	1	0	0	0	0	0	0
TOTAL	11	14	11	54	44	38	179

Table 8: The development of the complementizer in the complementation meso-construction

Homing in on the second meso-construction, that of juxtaposition (3% in PDE, cf. Table 5), we see effects of the same general changes as for the first one. In relation to the clauses containing the mirative qualifier, for instance, we also observe the loss of micro-constructions with a subjectless matrix, as shown in Table 9. Clauses with anaphoric *that* or *this*, by contrast, did not go lost, and the existential matrix shows up later than within the complementation meso-construction. Late Middle English witnesses a single instance of a complex-transitive matrix with first-person subject in the juxtaposition construction, presented in (18). In (18), God addresses a female recluse and guides her through a meditation – he has just asked her to visualize how Jesus was betrayed by Judas and taken prisoner. In view of the devotion to and love for Jesus, it is not surprising that the recluse’s heart is filled with pity.

(18) I woot now hov it stondesth with the: thyn hert is fulfilled with pyte. I holde it *no wonder*.

‘I now know how it stands with you: your heart is filled with pity. I hold it no wonder. (PPCME 1420-1500)

Mirative qualifier clause in meso-cxn 2	EME 1150-1350	LME 1350-1500	EModE 1500-1710	LModE			1993- PDE
				1710-1780	1780-1850	1850-1920	
$\emptyset$ <i>is (no) wonder</i>	1	3	0	0	0	0	0
<i>that/this is (no) wonder</i>	3	3	0	0	0	0	3
<i>it is (no) wonder</i>	0	1	0	0	1	2	9
<i>there is (no) wonder</i>	0	0	0	0	0	0	1
<i>I hold it (no) wonder</i>	0	1	0	0	0	0	0
TOTAL	4	8	0	0	1	2	13

Table 9: The development of the mirative qualifier clause in the juxtaposition meso-construction

In relation to the negative polarity slot, Table 10 shows developments similar to those for the first meso-construction. Micro-constructions with preverbal clitic *ne* go lost, as do nodes with rhetorical *hwilc?* (cf. Table 4), while new nodes with rhetorical *any?* and with near-negative quantifiers *small* and *little* (cf. (17)) emerge.

Negative polarity in meso-cxn 2	EME 1150-1350	LME 1350-1500	EModE 1500-1710	LModE			1993- PDE
				1710- 1780	1780- 1850	1850- 1920	
<i>ne ... na(n)</i>	2	0	0	0	0	0	0
<i>no</i>	0	8	0	0	1	1	9
<i>little/small</i>	0	0	0	0	0	0	2
rhetorical <i>any?</i>	2	0	0	0	0	1	2
TOTAL	4	8	0	0	1	2	13

Table 10: The development of negative polarity marking in the juxtaposition meso-construction

The third meso-construction, in turn, is no longer observed after 1850, and represents only few mirative constructs before 1850 (see Table 5). In line with the general trend described above, the mirative qualifier clause still has the preverbal negative clitic in Early Middle English, but features the negative determiner *no* as of Late Middle English. Example (19) illustrates the mirative qualifier in a non-restrictive relative clause, which has a hypotactic relation to the main clause.

- (19) Mr Jones, I am your most obedient servant. I find you do not know me, which indeed is *no wonder*, since you never saw me but once, and then you was very young. (CLMETEV 1710-1780)

The fourth and fifth meso-construction, which have adverbial rather than clausal mirative qualifiers, gradually increase in frequency and together make up more than half of the mirative constructs as of 1850 (cf. Table 5), with disjuncts by far outnumbering anaphoric adverbials. In terms of the position of mirative disjuncts relative to the proposition they modify, Gentens et al. (2016) note that they become increasingly sentence-initial, as in (20), whereas they were more flexible in earlier stages (compare with e.g. (14)).

- (20) Your picture of William Larkey clutching ashes from Ground Zero touched me so deeply I cried. This little lad, like so many others, will grow up with no father because of murdering terrorists. *Small wonder* he looks bewildered. It is more than a grown-up can cope with. (WB)

Being non-clausal, the adverbial meso-constructions show fewer slots and hence less formal variability, which results in fewer micro-constructions than the other meso-constructions. Tables 11 and 12 present changes in the coding of negative polarity. In both meso-constructions, negative determiner *no* predominates across all time periods; *little* and *small* emerge in Present-day English only, e.g. (20).

Negative polarity in meso-cxns 4-5	EME 1150-1350	LME 1350-1500	EModE 1500-1710	LModE			1993- PDE
				1710- 1780	1780- 1850	1850- 1920	
<i>no</i>	0	1	1	18	17	36	151
<i>little/small</i>	0	0	0	0	0	0	13
rhetorical <i>what?</i>	0	0	0	1	0	0	0
<b>TOTAL</b>	0	1	1	19	17	36	164

Table 11: The development of negative polarity marking in the disjunct meso-construction

Negative polarity in meso-cxns 4-5	EME 1150-1350	LME 1350-1500	EModE 1500-1710	LModE			1993- PDE
				1710- 1780	1780- 1850	1850- 1920	
<i>no</i>	0	1	1	3	17	17	57
<i>little/small</i>	0	0	0	0	0	0	14
rhetorical <i>what?</i>	0	0	0	1	2	0	0
<b>TOTAL</b>	0	1	1	4	19	17	71

Table 12: The development of negative polarity marking in the anaphoric adverbial meso-construction

In conclusion, the historical data point to a number of changes in the mirative network that was established in Old English, which involved node loss, node emergence or creation, constructional substitution, or mere frequency changes. In general, node loss was mainly triggered by more general, well-described morphosyntactic changes such as the decline of subjectless constructions and the loss of the preverbal clitic accompanying negative determiners. These changes led to constructional attrition within the complementation, juxtaposition and hypotactic meso-constructions. On the other hand, the network also witnessed node emergence, both at the meso- and micro-level. At the meso-level, two adverbial meso-constructions appeared in Middle English, which gradually gained in frequency, with the disjunct meso-construction becoming almost as frequent as the complementation one in Present-day English. At the micro-level, new fillers for the negative polarity slot emerged within the complementation, juxtaposition and adverbial meso-constructions. Having become well-entrenched already in Middle English, it is small wonder that the mirative network attracted other nouns with a similar meaning in later stages of the language, developments which we will turn to in the next section.

## 5. The expansion of the mirative network through language contact

This section focuses on contact-induced change in the mirative network discussed in Section 4. It concentrates on constructions with two nouns of Romance stock, *marvel* (Section 5.1) and *chance* (Section 5.2), which expanded the mirative network established around Germanic *wonder*, the former in Middle English, right after entering the English language, and the latter only in Present-day English, i.e. about seven centuries after being borrowed. The main effect of their arrival was an increase in degree of schematicity of the network, as the lexical slot occupied by the noun *wonder* in the various nodes in the network, at various levels, became lexically underspecified to a noun with ‘wonder’ semantics. This increase in schematicity was accompanied by a reconfiguration in the network hierarchy, as the macro-construction posited in Section 4 moved one level down and became a subschema of a new, superordinate node that is more abstract and productive in that it allows for the creation of lexically-specific nodes at lower levels in the hierarchy. As detailed in Section 5.1 below, this happened as early

as Middle English. Note that with this extra level of schematicity, Traugott's (2008) three levels of macro-, meso- and micro-construction no longer suffice to describe the hierarchical organization of the reconfigured mirative network; instead, we will use the terms schema for the highest node and subschema for all lower levels (cf. Smirnova and Sommerer 2020, 20).

### 5.1 How *marvel* entered the mirative network

As recorded in the OED (s.v. *marvel*, n.1), *marvel* was borrowed from French – its etymon being *merveille* – in Early Middle English. The first attestation dates to c1300 and shows the now obsolete sense of 'miracle', just like one of the earliest senses of *wonder* (OED, s.v. *wonder*, n.), illustrated in the lexical use in (7) (Section 4.1). In the corpus consulted, *marvel* only shows lexical use in Early Middle English, as illustrated in (21), in which it is not used as a shell noun.

- (21) y shal gon aboute þin auter, Lord, þat ich here þe voice of þyn heryng and telle al þyne *meruayles*.  
'I will go near to your altar, Lord, so that I hear the voice of your praise and tell all your marvels.'  
(PPCME 1250-1350)

In Late Middle English, then, we observe the first grammatical uses of *marvel*, which testify to the noun having entered the mirative network. As evidenced in (22) and (23) respectively, *marvel* is found in the complementation and juxtaposition subschema – with a more schematic 'wonder' noun slot. However, grammatical uses are scarce, and do not appear in any other sister subschema, as shown in Table 13.

- (22) I dare well sey sothely that sir Launcelot begate hym, for never two men resembled more in lyknesse. Therefore hit ys *no mervayle* thoughe he be of grete proues.  
'I dare well truly say that Sir Lancelot begat him [i.e. Galahad], for never two men resembled more in likeness. Therefore it is no marvel that he [i.e. Galahad] is of great prowess.' (PPCME 1420-1500)
- (23) "... and ryght good knyghtes have assayde and fayled." "Sir," seyde sir Galahad, "hit ys *no mervayle*, for thys adventure ys nat theirs but myne."  
"... and very good knights have tried and failed." "Sir," said Sir Galahad, "it is no marvel, for this adventure is not theirs but mine." (PPCME 1420-1500)

In (22), the speaker, Queen Guinevere, expresses her lack of surprise at the prowess of Sir Galahad (which he just demonstrated in a tournament) in view of him being the son of Sir Lancelot, who had already proved his skill and courage on many occasions. In (23), Sir Galahad deems it non-surprising that very good knights were not able to draw the sword from the stone (talked about in the previous discourse), since the adventure of looking for the Holy Grail was not destined for them but for him. Both examples, then, show the same anti-concessive discourse schema as the mirative examples with *wonder* discussed in Section 4.

Middle English		Lexical use			Grammatical/mirative use: 'no' <i>marvel</i> ( <i>no</i> , <i>what</i> )			Total
		complemen- tation	other	Total	complemen- tation	Juxta- position	Total	
1250-1350		0	2	2	0	0	0	2
Late	1350-1420	4	20	24	3	0	3	27
ME	1420-1500	13	33	46	2	1	3	49
Total		17	55	72	5	1	6	78

Table 13: Distribution of Middle English lexical and grammatical uses of ('no') *marvel*

The five constructs instantiating the complementation subschema with *marvel* (cf. Table 13) show slot-internal variation that is similar to what we observed for *wonder*: four examples have a matrix with subject (*h*)*it* like (22), while one has an elliptical matrix; four examples have complementizer *though* like (22), while one has *that*; yet four different examples have determiner *no* as negative polarity marker, like (22), while one has rhetorical *what?*. These five constructs can thus be assigned to distinct subschemas corresponding to the micro-constructions posited for the complementation meso-construction with *wonder* in Section 4.

While with *wonder* the adverbial subschemas emerged in Middle English, with *marvel* they appear in Early Modern English (1500-1710), as shown in Table 14. Examples are given in (24) and (25).

- (24) Loe, quoth the Londoner in derision of the yeomans felt, thus can we wer a felt in London and after trym yt up and send yt to you in the cuntrey. The yeoman lawghing in his sleeve and looking on the haberdashers wyfe which was born ther and for a poynt of false doctrine had byn sent away to London. *No marvel* sir, quoth he, the world is false for even so do wee by our mayds hear whom when we have somewhat overworne we send them to London for newe and you take them and make wyfes on them. (PPCEME 1570-1640)
- (25) All this whyl I was seasike, and *no mervel*, having changed at once both ayr, exercise and diet. (PPCEME 1570-1640)

In (24), *no marvel* functions as a disjunct adverbial, scoping over the proposition 'the world is false', with the *for*-clause expressing the justification for the mirative appraisal. While the haberdasher from London remarks that overworn felts can still be of use in Wales, the Welsh yeoman retorts that of course the world is beguiling, as conversely Welsh 'overworn' women are sent to London to become brides there, which – in the eyes of the yeoman – constitutes of course greater deceit than the trade in overworn felts. In (25), by contrast, *no marvel* functions as an anaphoric adverbial; the speaker expresses their lack of surprise about their seasickness in view of having undergone too many changes at a time (change of air, exercise and diet). All five adverbial constructs (see subschemas 4 and 5 in Table 14) have the negative polarity marker *no* like (24) and (25).

Constructs with <i>marvel</i>	Sub-schema 1: complementation	Sub-schema 2: juxtaposition	Sub-schema 3: hypotaxis	Sub-schema 4: disjunct adverbial	Sub-schema 5: anaphoric adverbial	Total grammatical uses	Lexical uses	Grand total (100%)
1150-1350	0	0	0	0	0	0 (0%)	2 (100%)	2
1350-1500	5	1	0	0	0	6 (8%)	70 (92%)	76
1500-1710	9	1	0	1	3	14 (38%)	23 (62%)	37
1710-1780	1	0	0	0	0	1 (20%)	4 (80%)	5
1780-1850	4	1	0	0	1	6 (32%)	13 (68%)	19
1850-1920	4	0	0	0	0	4 (7%)	57 (93%)	61
PDE	1	0	0	0	0	1 (1%)	109 (99%)	110

Table 14: Mirative subschemas with *marvel* in ME to PDE datasets

Table 14 also shows that the Early Modern English period displays the highest relative frequency of grammatical, mirative uses of *marvel* (38%), with mirative constructs dwindling dramatically towards Present-day English.<sup>12</sup> Therefore, to explore the Early Modern English period in more detail we looked at additional data from CEMET (see Section 2), which are presented in Table 15. Shakespeare’s and Bunyan’s writings account for most of the mirative constructs; examples are in (26) and (27).

- (26) “I would you had but the wit: ’t were better then your Dukedome. Good faith, this same young sober-blooded Boy doth not loue me, nor a man cannot make him laugh: but that’s *no maruaile*, hee drinkes no Wine.” (CEMET 1570-1640, Shakespeare, *First folio*)
- (27) Young Badman was for neglecting of his Masters business, for going to the Whore-house, for beguiling of his Master, for attempting to debauch his Daughters, and the like: *No marvel* then if they disagreed in these points. Not so much for that his Master had an antipathy against the fact it self, for he could do so when he was an Apprentice; but for that his servant by his sin made spoil of his Commodities, &c. and so damnified his Master. (CEMET 1640-1710, Bunyan, *Life and death of Mr Badman*)

The construct in (26) is the only example of the juxtaposition subschema in the CEMET data. In this passage from *Henry IV*, Falstaff expresses his lack of surprise at the proposition in the preceding sentence, i.e. nobody can make the sober-blooded boy laugh, which appraisal is justified by the circumstance that the latter drinks no wine. The construct in (27), in turn, illustrates the complementation subschema (with elliptical matrix and complementizer *if*). The construct can be paraphrased as ‘of course the young Badman and his master disagreed in the points listed above, as these very points would cause harm to the latter.’

<sup>12</sup> Note that the examples with lexical use in Table 14 do not necessarily show shell-noun use, e.g. (21) – only the present-day data do.

Constructs with <i>marvel</i>	Sub-schema 1: complementation	Sub-schema 2: juxtaposition	Sub-schema 3: hypotaxis	Sub-schema 4: disjunct adverbial	Sub-schema 5: anaphoric adverbial	Total grammatical uses	Lexical uses	Grand total (100%)
1570-1640	8	1	0	1	1	11 (52%)	10 (48%)	21
1640-1710	9	0	0	0	2	11 (100%)	0 (0%)	11
Total	17	1	0	1	3	22 (69%)	10 (31%)	32

Table 15: Mirative subschemas with *marvel* in CEMET

In summary, while shell-noun uses of the Romance ‘wonder’ noun *marvel* remained infrequent in the course of history (cf. Table 2), and grammatical, mirative uses even more infrequent (cf. Table 14), the above discussion has shown that the mirative network established by the Germanic noun *wonder* in Old English attracted the newly arrived noun *marvel*, with mirative constructs containing this loan all inheriting the anti-concessive discourse schema – and the syntagmatic relations of scoping and connective linking – from the mirative schema around *wonder*. Or, put differently, the mirative constructs with *marvel* testify to the reconfiguration of the mirative network in Middle English, with a new schema emerging as an abstraction over a set of lexically specific lower-level subschemas (Smirnova and Sommerer 2020, 29). Overall, this contact-induced reconfiguration made the network gain in complexity, schematicity, abstractness and productivity.

## 5.2 How *chance* entered the mirative network

The second Romance loan to be discussed here, viz. *chance*, was also borrowed into the language in Early Middle English; the first meaning of *chance* listed in the OED (s.v. *chance*, n.) is that of “[t]he falling out or happening of events; the way in which things fall out; fortune; case”, with the earliest attestation – in the plural for ‘fortuitous events’ – dating from *a*1300. However, it is only in the last sense listed in the OED that *chance* joins – or comes close to joining – the mirative network: “[a]bsence of design or assignable cause, fortuity; often itself spoken of as the cause or determiner of events, which appear to happen without the intervention of law, ordinary causation, or providence” (sense 6), for which the earliest example the OED gives dates to 1526. In the corpus data examined (see Section 2), however, it is only in the Present-day English dataset that we find one example that supports a mirative interpretation, presented in (28).<sup>13</sup>

- (28) Will Shakspere [sic] was indeed leapingly ambitious and determined. He was startlingly confident of his own abilities (as Nashe tells us) and had a greedy eye for gold. It is *no chance* that the book bearing his Westminster address is a legal textbook – Will was to prove litigious and acquisitive throughout his life. (WB, brbooks)

As argued in Van linden and Brems (2020, 216-217), *chance* here has the specific happenstance meaning of ‘coincidence’. With negative determiner *no*, the matrix *It is no chance* gets a mirative overtone and supports an interpretation similar to that of the mirative constructs we have analysed so far: the fact that Shakespeare owned a legal textbook, rather than any other type of textbook, is evaluated as unsurprising given that he was litigious throughout his life. That is, example (28) can be argued to instantiate the

<sup>13</sup> For a detailed account of the development of *chance* in happenstance, dynamic and epistemic constructions, the reader is referred to Van linden (2020).

complementation subschema – with yet another filler of the ‘wonder’ noun slot, inheriting the anti-concessive discourse schema from the most abstract mirative schema.

It should be noted that examples in which *chance* designates ‘coincidence’ and occurs with a *that*-clause complement as in (28) are scarce in the data; Van linden and Brems (2020, 216-217) only found two examples of such shell-noun uses out of 500 examples.<sup>14</sup> In the other example, given in (29), the matrix *it’s just like chance* conveys that it is purely coincidental, and not on purpose, that two people happened to buy similar boots; there is no mirative overtone as in (28).

(29) that I I got for Christmas a nice pair of boots and then erm I I She didn’t see them and then er she went out and bought herself a pair of boots and they were very similar. So sometimes it’s just like *chance* that we wear Mm. Mm. the same things. (WB, brspok)

Thus, we see that *chance*, which – unlike *marvel* – did not start out with a sense of ‘miracle’ or ‘wonder’, nevertheless developed a sense susceptible of mirativity when combined with negative polarity, as the absence of chance or coincidence meshes well indeed with the rhetorical causal relation between justification and proposition in the anti-concessive discourse schema (see Section 1). The construct in (28) involves node creation at different levels of schematicity, just like the mirative constructs with *marvel* did.

## 6. Concluding discussion

In this paper we have argued for the existence of a mirative constructional network in English and we have described its development as evidenced in diachronic and synchronic corpus data. Importantly, we took a critical approach to diachronic construction grammar, siding with Smirnova and Sommerer (2020) that Traugott and Trousdale’s (2013, 22) influential distinction between constructionalization and constructional change cannot be upheld. We also made a case for taking syntagmatic relations between the units that make up a construction seriously, and argued that complex or multi-sign constructions invariably involve such relations, which need to be conceived of as very abstract form-function pairings themselves, in the vein of what can broadly be called semiotic (non-constructionist) approaches to language. In general, syntagmatic-relation constructions enrich the existing descriptive apparatus of (diachronic) construction grammar, and, in the case of the mirative network discussed here, allow us to capture a generalization that would otherwise go unnoticed. Specifically, for one subschema within the network, we found that in negative polarity contexts there was a shift from lexical uses to grammatical, i.e., mirative, uses, which involved a fundamental reanalysis from a complementation relation, in the sense of Langacker (1987), to a scoping relation between mirative qualifier and proposition, in the sense of McGregor (1997). Whereas lexical uses code representational meaning, i.e. representations of our experience of the world, grammatical, mirative, uses code interpersonal meaning, “whereby the speaker enters into the communication process in its social and interpersonal aspects” (Halliday 1970: 325), giving a *hic et nunc* assessment of the representational content (cf. Davidse, Van

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<sup>14</sup> Note that *chance* also designates ‘coincidence’ in the expression (*not*) *by chance*, which is fairly frequent in the corpus data well before Present-day English. As suggested by the guest editors, this expression might have facilitated the recruitment of *chance* into the mirative network, which could then be regarded as a case of constructional contamination (Pijpops and Van de Velde 2016). It should be remarked, though, that in this expression *chance* is not used as a shell noun.



linden and Brems 2022, 9). More precisely, in mirative constructs, the speaker assesses a particular proposition as expected or unsurprising in view of a given situation.

We have thus built a case for a semiotic approach to diachronic construction grammar following Langacker (1987) and McGregor (1997)'s tenet that syntagmatic structure is at the heart of grammatical signs: grammatical meaning is coded by (different types of) structural assembly. Crucially, in this case-study, this semiotic approach enabled us to enrich the characterization of the mirative macro-construction, or anti-concessive schema, as involving, firstly, a scoping relation between mirative qualifier and proposition, and, secondly, at a higher level of assembly, a connective linking relation between justification and the whole of mirative qualifier and proposition. That is, the semiotic approach allowed for a unified syntagmatic analysis of mirative constructs in spite of the attested variation in surface structures. When formal characteristics are restricted to surface structures only, this generalization is missed. Another advantage of semiotic diachronic construction grammar is that it can account for constructions that extend beyond the boundaries of the sentence, and can thus be used to model discourse pragmatic phenomena, identified by Smirnova and Sommerer (2020, 36) as one of the issues to be discussed and resolved in diachronic construction grammar in the next years.

In concrete terms, Old English saw the emergence of three meso-constructions with the 'wonder' noun *wonder*, viz. complementation, juxtaposition and hypotactic constructions instantiating various micro-constructions, while Middle English added two more meso-constructions to the constructional network, namely the anaphoric adverbial and the disjunct adverbial one. Adverbial constructions, especially the disjunct type, quickly increased in frequency. In Middle English we also find node loss and constructional substitution in different areas of the network. There is constructional attrition of micro-constructions within the complementation, juxtaposition and hypotactic meso-constructions, often symptomatic of broader, well-known morphosyntactic changes. The hypotactic meso-construction eventually gets lost in Late Modern English. At the same time, there is node emergence at the micro-level with the arrival of new expressive devices for negative polarity within the complementation, juxtaposition and adverbial meso-constructions.

Middle English also witnesses contact-induced change in the mirative constructional network, as constructs with the Romance loan *marvel*, though infrequent throughout the course of history, join the network and trigger a reconfiguration in the network hierarchy, which goes hand in hand with an increase in schematicity, abstractness and productivity of the network. In Present-day English, *chance* also gets attracted to the constructional network, further schematizing the network. We furthermore hypothesize that there is further attraction of other Romance nouns to the constructional network, among which *surprise* and *coincidence* and *shock*, which, interestingly, like *chance*, do not start out as nouns referring to a 'miracle'. However, the study of the latter nouns goes beyond the scope of this paper.

Interestingly, in addition to 'wonder' nouns with negative polarity, Late Modern and Present-day English data also include positive polarity contexts which then instantiate a concessive discourse schema, as in (30).<sup>15</sup>

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<sup>15</sup> Although our Early Modern English data do not contain examples like (30), a quick search in the corpus of Early English Books Online (EEBO) teaches us that positive-polarity examples instantiating a concessive discourse schema were already around in Early Modern English. We thank the guest editors for pointing this out to us.

- (30) People say doctors are overpaid but they have to deal with all sorts of psychos in their surgeries. It's a *wonder* more GPs don't crack up after listening to their patients' troubles day after day. (WB, brbooks)

In (30), the speaker expresses their surprise at not more GPs cracking up, given the stories their patients tell them day after day. In addition to expressing speaker attitude, (30) also establishes a discourse relation between proposition and justification, this time a concessive one (cf. Van linden, Davidse and Matthijs 2016), and the same syntagmatic relations seem to obtain between the three components of the schema, i.e. mirative qualifier, proposition and justification. In construction grammar terms, this concessive schema could be argued to be a sister construction of the anti-concessive schema, with the horizontal link at this level being of a different nature than the allostructional relations we have seen so far. This time, the horizontal link would be paradigmatic in nature (cf. Van de Velde 2014), as the schemas share some general meaning but at the same time are opposed to each other in terms of their semantics. However, further research needs to adduce further evidence for this concessive schema, and its integration in the mirative network presented here needs further reflection as well.

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