A Phonological Factor for the Decline in Topicalization in English

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1 The loss of topicalization

The verb-second constraint (= V2), which is at work in all other modern Germanic languages (e.g. Haeberli, 2000), was lost in English in the course of the Middle English Period. In other words: examples like (2a) are after a certain time ungrammatical and are replaced by examples like (2b), whereas sentences like (1) are unaffected.

(1)   John likes beans.

(2)   a.   Beans likes John.

       b.   Beans John likes.

At the same time another development takes place: topicalization, i.e. fronting of a non-subject-constituent to the top of the clause, declines also (table A), most notably in sentences with full noun phrase subject (table B).

Table A: Decline of Topicalization

	me 1 (1150-1250)	me 2 (1250-1350)	me 3 (1350-1420)	me 4 (1420-1500)	e 1 (1500-1570)	e 2 (1570-1640)	e 3 (1640-1710)
Total # of direct objects	4913	3009	8296	5897	2946	4147	3541
thereof topicalized	575	199	400	239	114	125	128
%	**11.70**	**6.61**	**4.82**	**4.05**	**3.87**	**3.01**	**3.61**

Table B: Decline of Topicalization, split of full-NP-subject vs. pronoun-subjects

	me 1 (1150-1250)	me 2 (1250-1350)	me 3 (1350-1420)	me 4 (1420-1500)	e 1 (1500-1570)	e 2 (1570-1640)	e 3 (1640-1710)
Total # of DO, Subj. = full NP	2893	1260	4966	2939	1314	1698	1395
thereof topicalized	236	87	146	60	20	23	13
%	**8.16**	**6.90**	**2.94**	**2.04**	**1.52**	**1.35**	**0.93**
Total # of DO, Subj. = pronoun	2020	1749	3330	2958	1632	2449	2146
thereof topicalized	339	112	254	179	94	102	115
%	**16.78**	**6.40**	**7.63**	**6.05**	**5.76**	**4.16**	**5.36**

The question which we have to ask is, if these two developments, i.e. the loss of V2 and the decline of topicalization, are connected, and if so, how. It turns out that the loss of V2 creates conditions (of a mainly prosodic nature) which are unfavourable for topicalization.

2 The Trochaic Requirement

2.1 The pragmatics of topicalization

German and English have similar accent patterns. So it is reasonable to assume that the ancestor of both languages had a comparable accent pattern, and a consequence of that is that there was no change in accent pattern on all intervening stages of both languages.

Let us first have a look at topicalized sentences in Modern English. Topicalization, as virtually all English sentence types involving non-canonical word order, is done for discourse-reasons. In the case of topicalization there are several approaches. The two most influential ways of explanation are in direct opposition: The approach by the Prague-school and others, claims that topicalization establishes a theme-rheme structure (or: topic-comment-structure) in cases where the subject is not the theme (e.g. Mathesius, 1928; Halliday, 1967). On the other hand there is the notion expressed by Prince (1986; 1999), that the entity referred to by a topicalized constituent stands in a relation to a partially ordered set evoked earlier in the discourse, but recently enough that it is still salient. I adopted Prince's approach since it seems to me operationally more accurate than the former one.

2.2 The prosody of topicalized sentences

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Topicalized sentences in English contain two accented constituents. The topicalized constituent is accented and another constituent in the sentence which represents the variable of the open proposition, bears an accent too. If these two accented phrases wind up adjacent to each other in a sentence (3b, 2nd sent.), the speaker produces a little pause. If there is an intervening, unaccented element, as e.g. the verb in German (3a), the speaker produces no pause.

(3)   a.   **Hans** hasst **Bohnen**. **Erbsen** hasst **Maria**.
      b.   **John** hates **beans**. **Peas, Mary** hates.

This seems to be the effect of a prosodic constraint, which we might call 'Trochaic Requirement' (TR). The TR basically says that between two accented elements a weak element must intervene. A similar observation, namely that after the first accented element in a sentence a weak element must follow, was made by John Ries for Beowulf (1907). It is best to view the TR as the reflex of the Obligatory Contour Principle on the prosodic tier; I decided not to treat sentence prosody as a mere continuation of the prosodic hierarchy (cf. Nespor and Vogel, 1986) but as separate phenomenon for a number of reasons (e.g. the repair mechanisms of stress clash on all levels of the prosodic hierarchy are fundamentally different from that of accent clash). In cases of topicalized sentences with accent clash the only way to conform to the TR is to insert a dummy weak element, a pause, between the two accented phrases. Let us assume that this is a last-resort strategy. Note that in German with its V2 syntax the fulfilment of the TR comes for free in such cases; V2 syntax is hence a handy way to prevent violations of the TR. A consequence could be that, once V2 is on the backswing, the number of possible violations of the TR, and thus the need to resort to the pause-insertion, increases; but instead of resorting to pause-inserting speakers bypass the looming TR-violation by not topicalizing any more and marking elements in a poset-relationship by other means, e.g. only be putting an accent on it. It looks from the data, which has been gathered by searching in the Penn-Helsinki corpora of Middle and Early Modern English for topicalized sentences (which is rather easy thanks to the search program CorpusSearch by Beth Randall, which is designed for full compatibility with the parsing of the corpus) and by subsequent manual accenting of the output sentences by means of an algorithm tested with speakers of Modern English, that that is exactly what happened.

3 The Trochaic Requirement in the history of English

3.1 Pronoun subjects versus full noun phrase subjects

Pronouns are notoriously phonologically weak elements. So, even if V2 is lost, the TR is automatically fulfilled if the subject is a pronoun. Consequently the speaker can topicalize more freely in such cases, and as the numbers in Table B show, the texts show indeed a far less radical decline in topicalization in such cases.

3.2 Accent patterns with full noun phrase subjects

Accent clash can occur only when the subject is a full noun phrase and V2 is completely lost. Consequently we should expect that, as long as inversion was possible, sentences with the second accent on the subject should be more likely to be inverted than sentences with the second accent on some constituent further to the right in the sentence. In the less frequent case, that the second accent falls on the verb, inversion should be dispreferred. This is indeed the case, as a calculation of all Middle English sentences shows (Table C). The quota remained stable throughout the Middle English period.

Table C: Rate of inversion depending on accent, without bare demonstratives

	Second accent on subject $Binv./Binv.+Auninv.$	Second accent on verb $Ainv./Ainv.+Buninv.$	Comparison data $Cinv./Cinv.+Cuninv.$
numbers	101/113	4/29	46/65
inversion (%)	**89.38**	**13.79**	**70.77**

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