

Economy, innovation, and analogy: Effects of language contact on English verb fronting

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1 Introduction

canonical word order in English: SVO

(1) We should wait one more minute.

subject–auxiliary inversion in main clause interrogatives:

(2) a. **Should** we wait one more minute?
b. What **should** we do?

pattern in (1) a result of the loss of V2 – arguably more economical:

- involves less structure – TP instead of CP
- involves fewer derivational steps (lack of T-to-C movement)

lack of verb movement also in embedded interrogatives (CPs):

(3) I wonder [what we should do].

pattern in (3) not uniform across varieties of English – Welsh English shows embedded inversion

(4) a. Did you see [what kind of coal **was** it]?
(SAWD: Gn 9: 3; Paulasto et al. 2021: 95)

b. I asked them in the camp, [**would** they like the plums].
(NWC, Criccieth: 2e; Paulasto et al. 2021: 95)

→ question: whether such patterns constitute a counterexample to economy principles

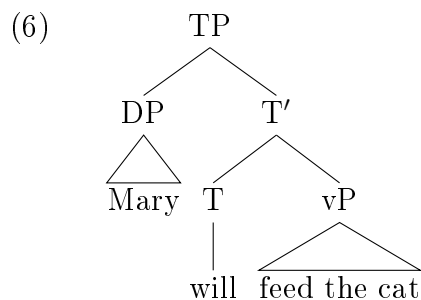
proposal: besides derivational economy, paradigmatic economy should also be taken into consideration – contact-induced changes do not necessarily go against economy principles

2 Movement and economy

English declaratives can be analysed as TPs – SVO order, no V2 (\leftrightarrow other Germanic languages)

(5) Mary will feed the cat.

structure:



structural economy: no CP generated

derivational economy: no movement to CP – movement constrained by economy (Pesetsky & Torrego 2001)

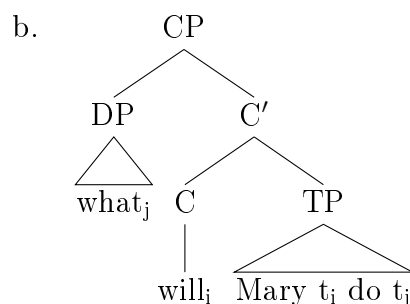
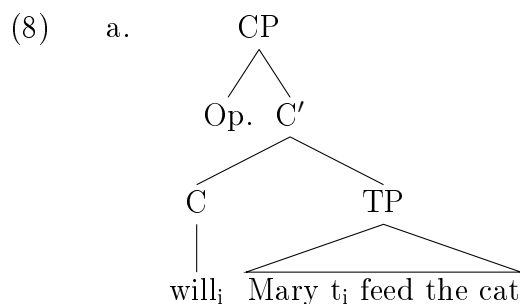
main clause interrogatives are CPs

- (7) a. **Will** Mary feed the cat?
 b. What **will** Mary do?

movement operations:

- T-to-C movement
- *wh*-movement to [Spec,CP] in constituent questions

structures:



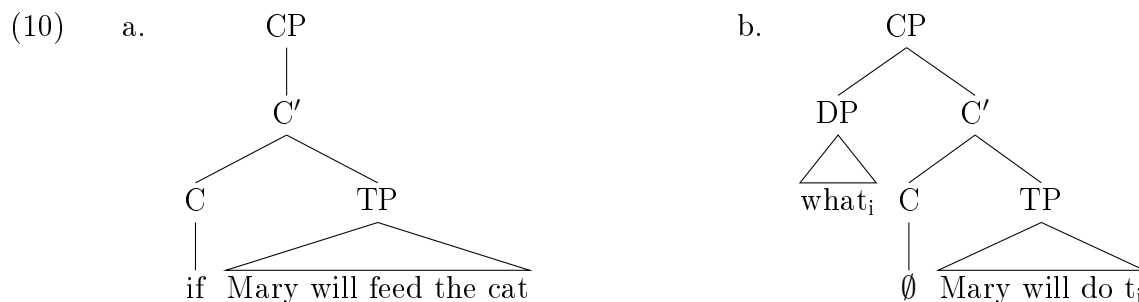
embedded interrogatives:

- (9) a. I don't know [if Mary will feed the cat].
 b. I don't know [what Mary will do].

no T-to-C movement but evidence for CP:

- *wh*-movement
- overt complementiser (*if*)

structures:



pattern in (10b) exceptional in the interrogative paradigm in English (marked pattern)
– C not lexicalised overtly (Bacskai-Atkari 2020c)

→ asymmetries in Standard English both between main and embedded clauses and between constituent questions and polar questions

3 Movement and language change

economy also relevant in grammaticalisation processes

two major principles (van Gelderen 2004; 2009):

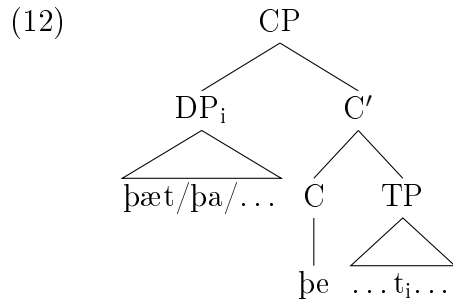
- Head Preference Principle (HPP)
- Late Merge Principle (LMP)

both principles ultimately follow from feature economy (van Gelderen 2009) and account for upward grammaticalisation; operative in e.g. the grammaticalisation of relative pronouns into relative complementisers

that originally a relative pronoun in Old English (neuter, singular, nominative/accusative; van Gelderen 2004: 85, citing Grossmann 1906: 38)

- (11) a. ac gif we asmeagaþ þa eadmodlican dæda þa þe he
but if we consider those humble deeds that.F.PL.ACC REL he
worhte, þonne ne þincþ us þæt nan wundor
wrought then not seems us that no wonder
'But if we consider the humble deeds that he wrought, then that will not
appear marvellous to us.' (*Blickling Homilies* p. 33)
- b. þurh þæt þe he on þam gebede gehyrð
'through that.N.ACC REL he in this.DAT prayer hears
'through what he hears in this prayer'
(Aethelwold, *The Benedictine Rule*, 884–885)

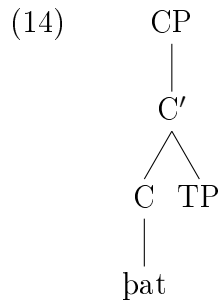
structure:



reanalysis as a complementiser in Middle English (van Gelderen 2009):

- (13) and suggeð **feole þinges**; bi Arðure þan kinge. // **þat** næuere nes
 and say many things about Arthur the king that never not-was
 i-wurðen
 happened
 ‘and say many things about King Arthur that never happened.’
 (Layamon, *Brut*, Caligula version, 11473–11474)

structure:



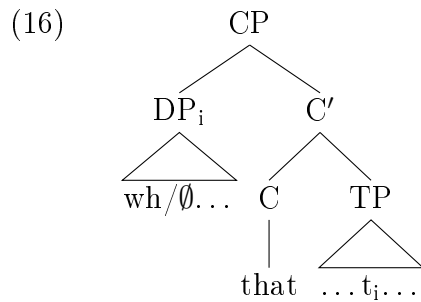
economy: *that* base-generated in C → no movement necessary

but: specifier position not actually empty

- *wh*-operators start to appear in Middle English – doubly filled COMP structures
- *that*-relatives regularly contain a zero operator that undergoes movement – relative clauses constitute islands (Ross 1967)

- (15) the est Orisonte, **which þat** is cleped comunly the assendent
 ‘the East horizon, which is commonly known as the ascendent’
 (Chaucer *Treatise on the Astrolabe*, folio 10)

structure:



→ notion of economy regarding reanalysis not unproblematic

another perspective on reanalysis: more transparency for the language learner (cf. the Transparency Principle of Lightfoot 1979)

→ higher similarity between the base-generation structure and the output if the given element is base-generated in the higher position (i.e. it is not moved)

4 Verb movement in English

major word order change: from V2 to SVO

T-to-C movement in Modern English: a residue of V2 (like other inversion structures, e.g. negative inversion, quotative inversion, Rizzi 1996, Westergaard 2007, Roberts 2010) – but: no lexical verbs involved and triggered by very specific elements (Sailor 2020)

→ movement only if necessary (Pesetsky & Torrego 2001)

two major types of V2 (Kroch & Taylor 1997, Gärtner 2016, Vikner 1995 and Holmberg 2015; see also Walkden & Booth 2020):

- CP-V2 or narrow V2 or asymmetric – German, Dutch, Mainland Scandinavian
- IP-V2 or broad V2 or symmetric – Icelandic, Faroese, Yiddish

V2 in Old English already not a strict pattern – variation

most clauses in Old English subject-initial (Kroch & Taylor 1997)

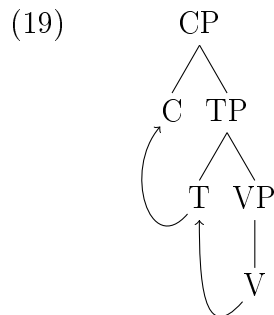
IP-V2 in Old English: topicalised non-subject in [Spec,IP/TP], verb in I/T (Pintzuk 1991, Kroch & Taylor 1997, see also van Kemenade 1987)

- (17) þæt hus **hæfdon** Romane to ðæm anum tacne geworht
that house had.3PL Romans to the.DAT one sign made.PTCP
'The Romans made that house to that their sole sign.'
(*Orosius* 59.3; Kroch & Taylor 1997)

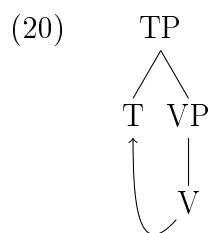
CP-V2 in Old English: fronted non-topic, non-subject constituent in [Spec,CP], verb in C (Pintzuk 1991, Kroch & Taylor 1997)

- (18) þa **gemette** he sceaðan
 then met.PTCP he robbers
 ‘Then he met robbers.’ (AELS 31.151; Kroch & Taylor 1997)

CP-V2 system:



IP-V2 system:



contact with Old Norse in Old English:

- Old Norse: a broader V2 system (Gärtner 2016)
- affected the northern dialects

→ dialectal variation in Early Middle English (Kroch & Taylor 1997):

- northern dialects: innovative IP-V2 grammar
- southern dialects: similarly to Old English, CP-V2 grammar

loss of movement of lexical verbs in two consecutive steps (Kroch & Taylor 1997): T-to-C then V-to-T

lack of movement: structural/derivational economy, more transparency between the base-generation structure and the output

→ role of language contact: fostering the spread of an arguably more economical configuration that was present in the grammar anyway

5 Welsh English

embedded inversion common in Welsh English:

- (21) a. Did you see [what kind of coal **was** it]?
(SAWD: Gn 9: 3; Paulasto et al. 2021: 95)
- b. I don't know [what time **is** it].
(Penhallurick 2008: 104, citing Parry 1999: 119)
- c. I asked them in the camp, [**would** they like the plums].
(NWC, Criccieth: 2e; Paulasto et al. 2021: 95)
- d. I'm not sure [**is** it Caerleon or not].
(Penhallurick 2008: 104, citing Parry 1999: 119)

important: such embedded clauses are intonationally integrated (not direct quotations)

→ potential problem: diachronic development towards the less economical configuration
– introducing a movement step

embedded inversion most likely influenced by Celtic contact (Paulasto et al. 2021: 95, citing Thomas 1994: 138 and Penhallurick 1991: 210)

Welsh: similar word order in questions, especially in colloquial Welsh (Paulasto et al. 2021: 95–96, citing King 1993: 305–310 and Thomas 1994: 138)

main clause *wh*-questions:

- (22) Beth **glywaist** ti wedyn?
what hear.PST.2SG you then
'What did you hear then?' (Borsley et al. 2007: 106)

embedded *wh*-questions:

- (23) Gofynnais [beth **oedd** yr achos].
asked.1SG what was the cause
'I asked what the cause was.' (Ellis Wynne, *Gweledigaethau y Bardd Cwsg*)

main clause polar questions (optional question particle in literary language):

- (24) a. A **fydd** Gwyn yn yr ardd?
Q be.IMPF.3SG Gwyn in the garden
'Will Gwyn be in the garden?' (Borsley et al. 2007: 36)
- b. **Fydd** Gwyn yn yr ardd?
be.FUT.3SG Gwyn in the garden
'Will Gwyn be in the garden?' (Borsley et al. 2007: 36)

embedded polar questions:

- (25) a. Gofynnais [a **oedd** Siân yn defnyddio cyfrifiadur].
asked.1SG Q was Siân AUX using computer
'I asked whether Siân was using the computer.' (Awbery 2009: 411)
- b. Gofynnais [**oedd** o'n sylweddoli beth roedd o newydd ei neud].
asked.1SG was AUX realise what he of new AUX do
'I asked him whether he realised what he had just done.'
(Gareth F. Williams, *Awst yn Anogia*)

further evidence for Celtic contact effect: similar structures in Irish English (Filppula 2008) and in Scottish English (Miller 2008)

analogy with Celtic: same word order in embedded clauses as in main clauses – inflected verb clause-initial

prevalence of embedded inversion in Welsh English: common but not the dominant pattern – total share in all embedded questions 9.3% (Meriläinen & Paulasto 2017: 684–685), with higher rates for older speakers (Paulasto et al. 2021: 97)

→ no sharp, parametric distinction from other varieties of English

→ question: language contact seems to have fostered a less economical pattern that is available in varieties of English also independently

6 Markedness and paradigmatic economy

similarity to main clause questions: cognitive factors (ease of processing) also relevant, as evidenced by e.g. learner Englishes (Paulasto et al. 2021: 96)

similar structures in other varieties as well, e.g. Colloquial American English (Murray & Simon 2008), Appalachian English (Montgomery 2008), Newfoundland English (Clarke 2008)

→ Celtic contact probably reinforcing a more general tendency

Standard English interrogative paradigm for overt elements in C:

	Main clause	Embedded clause
Constituent question	fronted V	\emptyset
Polar question		<i>if</i>

exceptional slot: C not lexicalised overtly → marked pattern

syntactic tendency in English:

- C specified as [fin] and [Q] lexicalised overtly by a [fin] element (finite verb or finite complementiser, Bacskai-Atkari 2020c; 2022) – no extra null element required, transparent configuration
- preference for lexicalising C also in relative clauses (see van Gelderen 2004; 2009, Romaine 1982, Montgomery & Bailey 1991, Tagliamonte et al. 2005, Herrmann 2005, Bacskai-Atkari 2020a;b)
- related to the general tendency of lexicalising [fin] in Germanic resulting in V2 (Bacskai-Atkari 2020c, see also Pittner 1995)

one option to overcome the marked gap: doubly filled COMP patterns (Bacskai-Atkari 2020c; 2022, see also Chomsky & Lasnik 1977)

- (26) They discussed a certain model, but they didn't know [which model **that** they discussed].
(Baltin 2010: 331)

interrogative paradigm for overt elements in C in doubly filled COMP varieties:

	Main clause	Embedded clause
Constituent question	fronted V	<i>that</i>
Polar question		<i>if</i>

Welsh English can exhibit the following paradigm for overt elements in C:

	Main clause	Embedded clause
Constituent question	fronted V	
Polar question		

maximally unmarked pattern regarding the C position

two possibilities:

- Welsh English pattern solely governed by markedness (paradigmatic effects and/or processing factors) – major factor: analogy with main clauses → symmetrical arrangement between constituent and polar questions expected
- Welsh English pattern also affected by the lexicalisation requirement on [fin] in questions → asymmetrical arrangement between constituent and polar questions expected (polar questions have the [fin] option by *if* anyway)

evidence from corpora: embedded inversion more frequent in constituent questions than in polar questions (Paulasto et al. 2021: 96–98; similar to other varieties showing embedded inversion, see Meriläinen & Paulasto 2017)

→ grammatical factors also play a decisive role

paradigmatic economy: analogy based on surface similarities – similar output structures achieved (transparency across structures)

analogy goes further in Welsh English – also in cleft constructions

- cleft constructions common in Welsh English – probably due to contact with Welsh (Penhallurick 2008)
- clefts can either contain the complementiser *that* or they show verb fronting

- (27) a. Well, at one time, it was only these four horses [**that** was here].
(LC: 1c; Paulasto et al. 2021: 107)
- b. It's once a week [**are** the bus services, which is really terrible...]
(LC: 7d; Paulasto et al. 2021: 107)

→ phenomenon not specific to interrogatives

notions of economy in syntax – revision:

- derivational economy – verb movement less favourable than inserting a complementiser
- paradigmatic economy – verb movement more favourable than inserting a complementiser

the two may be in conflict – derivational economy arguably universal, paradigmatic economy dependent on other constructions in the language

7 Conclusion

verb movement and economy in the history of English

- loss of verb movement in Old/Middle English main clauses in line with derivational economy
- development of verb movement in Welsh English embedded interrogatives in line with paradigmatic economy
- both processes in line with transparency
- both processes fostered by language contact (but: no introduction of constructions alien to the system)

→ innovations due to analogy (and language contact) are not necessarily incompatible with economy

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