Early English clausal arguments of intransitive verbs:
Subjects or associates of empty expletives?

Richard Zimmermann
Université de Genève
SHES 13
May 16-17, 2015

1 Introduction

- Old and Middle English have various verbs that can occur with a that-clause as their only argument
- goal: analyse the status of the that-clause

1.1 Corpus Size and Examples

- searches for intransitive verbs with a that-clauses in the YCOE (Taylor et al. 2003) and PPCME2 (Kroch and Taylor 2000) yielded a total of 182 examples
- two semantic verb classes make up for majority of cases:
  1. verbs meaning roughly “happen”, limpan, byrian, wearðan, becuman, befall etc. (137 / 182 examples)

  (1) For Diosum donné oft gebyreð [ðæt se recere on his mode wírð upaðæfen] for this then often happens that the ruler in his mind becomes uplifted ‘Therefore, it happens often [that the ruler gets arrogant in his mind]’
  (cocura,CP:17.109.24.732)

  2. verbs meaning roughly “befit”, dafenian, byrian, risan, behove etc. (17 / 182 examples)

  (2) Ond peah wel gedafonað [ðætte ða godan receras wilnügen ðæt hie monnum licigen] and though well befits that the good rulers want that they men please ‘It is nevertheless appropriate [that the good rulers want to be pleasing to men]’
  (cocura,CP:19.147.5.994)

- a large number of other verbs; e.g. betoken, follow, help, need, seem, signify, suffice etc. (28/182 examples)

  (3) a. Helped [ðæt se mete hreð & wel mylteð]. helps that the food quickly and well digests ‘It is helpful [that the food digests quickly and well]’
  (coverhom,HomU.11[ScraggVerc]:97.1131)

  b. & dūhte [ðæt hit eal forbyrnan scolde.] and seemed that it all down-burn should ‘And it seemed [that it would burn down entirely]’
  (coblick,LS.17.1[MartinMor[BlHom]:221.172.2822)

  c. ... Wherof folowyth [ that they were not the same ]
  (CMFITZJA,A2V.16)
1.2 The Rise of Expletive *it*

- intransitive verbs with *that*-clauses begin to develop *it*-expletives
- long period of variation between bare *that*-clause arguments and *it*-associate structures (from before attested Old English to at least 1450)

(4) a. *After isum gelamp* [þaet δa leasan hæðenan wrægdon Philippum to ðam casere] after this happened that the false heathens denounced P. to the emperor ‘After this, it happened that the false heathens denounced Philip to the emperor’
(coaelive,ELS,Eugenia:284.361)

b. *After hit gelamp binnon feawum monðum* [þaet Stranguilio and Dionisiade his after this happened within few months that S. and D. his wif gelærdon Apollonium ἀνατ] ‘After this, it happened, within a few months, that Stranguilio and Dionysias his wife advised Apollonius that’
(coapollo,ApT:11.1.182)

- searches for examples with *it* in YCOE and PPCME2 yielded 544 examples
- the variant with *it* gradually takes over
- to date, research has failed to produce significant factors (other than time) that influence the absence or presence of *it*, but it is possible that the nature of the clause-initial constituent, verbal semantics, and gaps in subordinate clauses play a role.

‘On the whole, there seem to be no fixed rules for the addition of this secondary formal subject in OE. As far as I can see, the state of things in this respect is next to chaotic’ (Wahln, cited in Mitchell 1985, §1035)

| Coefficients: | Estimate | Std. Error | z-value | Pr(>|z|) |
|--------------|----------|------------|---------|---------|
| (Intercept)  | -3.7890160 | 0.5344918 | -7.089 | <.001 *** |
| Time         | 0.0043854  | 0.0004944 | 8.870  | <.001 *** |

Null deviance: 412.11 on 140 degrees of freedom
Residual deviance: 314.67 on 139 degrees of freedom
AIC: 419.01, Nagelkerke Pseudo- R² 0.527

Table 1: Logistic regression model for rise of *it*

![Figure 1: The rise of expletive *it* with intransitive verbs](image)

- very slow change, log-odds of *it* are predicted to increase by only 0.44 per century (95%-CI: [0.34 - 0.54]); it would take c. 1,300 years for the frequency of *it* to rise from 5% to 95% (?)
1.3 Research Question: Which analysis is more appropriate?

- intransitive verbs with a that-clause are compatible with two different parses:

1. The empty expletive analysis:

   ![Diagram of the empty expletive analysis]

   - most syntacticians seem to prefer the empty expletive analysis (e.g., Haeberli 1999, Kemenade 1997, Ringe and Taylor 2014, 502)

   - YCOE and PPCME2 implement an empty expletive analysis

   (5)  
   (IP-MAT (NP-NOM-x *exp*)
   (ADVP-TMP (ADV’T +Ta))
   (VBDI gelamp)
   (CP-THT-x (C+t+at)
   (IP-SUB ...))
   (. .))
   (ID comart2,Mart.2_1[Herzfeld-Kotzor]:No15,A.17.139))

2. The unmediated analysis:

   ![Diagram of the unmediated analysis]

   - the research question may seem trivial at first; however, it is easier to link the rise of it-expletives to the development of a canonical subject position if there is no expletive drop

<table>
<thead>
<tr>
<th>Crucial change function of CP</th>
<th>Empty expletive analysis</th>
<th>Unmediated analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonology: pro → it</td>
<td>Syntax: rise of Spec,IP as canonical subject position</td>
<td>May be different:</td>
</tr>
<tr>
<td>Necessarily identical:</td>
<td></td>
<td>Without overt expletive: SUBJ</td>
</tr>
<tr>
<td>With pro: COMP</td>
<td></td>
<td>With it: COMP</td>
</tr>
<tr>
<td>With it: COMP</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Comparison between empty expletive and unmediated analyses

- I will try to find as many tests as possible to distinguish between the two hypotheses
- most tests will make an argument from parsimony or exploit the fact that the grammatical function of the that-clause is different under the two analyses
- however, since data is sparse and the question is intricate, it is impossible to produce absolutely clear evidence for or against either view
2 The positional argument

- the absence of pre-verbal that-clauses has been used as an argument against their status as subjects

2.1 Traugott 1992

“[T]here is one significant difference from PDE: [...] complement[] [clauses] that could, on the basis of their equivalents in PDE, be regarded as subjects actually either function as oblique NPs in impersonal constructions, [or] as complements of NPs or predicates [...]. This is partly because, unlike in PDE, noun clauses cannot occur in sentence-initial position, i.e. there is no equivalent of That they arrived so late is a problem.” (Traugott 1992, 234)

→ Traugott proposes two alternative parses for constructions that involve potential finite subject clauses

- that-clauses with verb with oblique EXPERIENCER (e.g. þyncan, lystan, please etc.):

(6) a. EXPERIENCER verb [that ... ]
   b. subject: [that ... ] verb EXPERIENCER
   c. "oblique": EXPERIENCER [ verb [that ... ] ]

“[T]he þæt-clause may be taken to serve the stimulus function without also being subject” (Traugott 1992, 235)

→ it is quite uncontroversial that a þæt-clause with impersonal verbs is not a subject (e.g., Fischer and van der Leek 1983; Visser 1963-73, §32)

→ evidence:

1. the EXPERIENCER is probably the subject as it passes various subject tests, most importantly conjunction reduction (Allen 1995)

   (7) ... gif him na ne tweonað [þæt he þæs tiða beo],
   ... if him.dat not at all doubts that he of-this receiver be,
   ac _ gelyfð on heortan
   but þ.nom believes in heart
   ‘... if he doesn’t doubt at all that he will receive this, but believes it in his heart’
   (coaelhom,ÆHom.8:85.1212)

2. the þæt-clause can show non-nominative case when used with cataphoric elements

   (8) ac þæs us scamað swyþþ [þæt we bote aginnan swa ]
   but this.gen us shames very that we atonement begin so
   ‘But we are ashamed of this, [that we begin atonement in that way]’
   (cowulf,WHom.20.3:166.1851) (Traugott 1992, 236, example (110))

3. extraction out of the þæt-clause is easily possible

   (9) a. [But one thynge ], sir knyght, me thynkes [ ye lak _ ]
      (CMMALORY.194.2921)
   b. [Hwæt] þincd þe [þæt þu _ sy _ ]?
      what seems you that you.dat are
      ‘What does it seem to you that you are?’
      (cowgsosp,Jn[WSCP];8.53.6483)

4. co-occurrence of EXPERIENCER and expletive it is extremely rare (e.g., Mohlig-Falke 2012, 170)

   (10) þa gelicode hit ðam leodebiscope [þæt he his lichaman up ða gelogode.]
   then liked expl.the.dat bishop.dat that he his body up then put
   ‘Then it pleased the bishop to place his body up (there)’
   (cocathom2,ÆCHom.II,10:90.333.1858)
that-clauses with be + NP / predicate (e.g. custom, wonder; foolish etc.):

(11) a. is NP / predicate [that ... ]
    b. subject: [that ... ] is NP / predicate
    c. complement of NP / predicate: is [ NP / predicate [that ... ] ]

“In the absence of evidence that the complement [clause] [...] must be a subject, it is preferable to analyse it as a complement of an NP [or predicate]” (Traugott 1992, 235)

→ Traugott’s description of the two parsing options is confused
→ predicates that contain that-clause complements are generally unambiguous:

1. an external argument is present

(12) Hwæðer nu [se anwalde] hæbbe [bone þeaw [ðæt he astificige unðeawas [...] & plantige
whether now the power has the custom that it uproots vices [...] and plants
ðær cræftas on ]] ?
there virtues on
‘Does power now have the custom of uprooting vices [...] and planting virtues there?’
(coboeth, Bo: 27.61.7.1133)

2. existential be forces complement reading (ambiguity between existenial and equative be)

(13) & þær is mid Estum þeaw [...] [ðæt he lið inne unforbærned ]
and there is with Estonians custom [...] that he lies inside unburned
‘There exists among the Estonians [the custom [...] [ that he lies inside unburned]]’
(probably not: [That ...] is [a custom])
(coorosiu, Or: 1.17.6.325) (Traugott 1992, 235, example (133a))

→ in most examples of “is NP / predicate [that ... ]”, be is much more likely to be equative, not existential

(14) ... swa swa gio [Romana þeaw] wæs, & giet is on manegum þiodum,
... so as once Romans’ custom was, and yet is in many countries,
[þæt mon hehð ãnne heafodbeag gyldenne æt sumes ærnewege ende].
that one hangs a crown golden at some run-way’s end
‘... just as it once was the custom of the Romans, and still is in many countries, that people hang a golden crown at the end of a racecourse’ (not: the custom [that ...] existed)
(coboeth, Bo: 37.112.20.2222)

→ examples with two that-clauses also show that that-clauses can occur as an argument with equative be (Méndez 1997, 219, "double embedding"); complement reading unlikely (coordination?) if not impossible
→ the real ambiguity in these cases is between whether the NP or the that-clause is the predicate
(NP is [that...] vs. [that...] is NP)
→ this ambiguity is also reflected in different annotations in the parsed corpora:

(15)

→ ambiguity probably the main reason why measurements of the rise of expletive it with predicates is quite incoherent
but what about examples without an oblique EXPERIENCER and without an "NP or predicate"?

(16) verb [that ... ]

→ Traugott conveniently ignores intransitive verbs with a that-clause argument!
→ Traugott would probably have to concede that they are subjects since her system does not include empty elements like null expletives
→ it turns out that the denial of finite subject clauses in Old English is not “partly” based on the fact that “noun clauses cannot occur in sentence-initial position” but that this is in fact the only argument

2.2 The position of initial that-clauses

• initial that-clauses are often assumed to occur in Spec,CP, not the canonical subject position, Spec,IP
• also common view in textbooks (e.g. Adger 2003)
• most important arguments in (Koster 1978) and lots of literature afterwards; no sentential subject in embedded or inversion contexts, no topicalization over sentential subjects

(17) * [That [that the world is round] is obvious] upset Hermes (Adger 2003, 299, example (57))
(18) * Did [that Medea killed her children] upset John? (Adger 2003, 299, example (54))
(19) a. * John, that the Giants lost the World Series shouldn’t have bothered.
b. John, the story shouldn’t have bothered. (Lohndal 2013, 316, example (9))
• however, some syntacticians disagree, most importantly (Delahunty 1983) and subsequent literature; some speakers allow embedded sentential subjects; some more fine-grained arguments
• I assume that clause-initial that-clauses are in Spec,CP for most speakers and that that has been true throughout the history of English

![Diagram of CP structure with that-clauses](image)

• the rule for canonical subjects in Spec,CP requires a DP

(20) IP → DP I' (↑ SUBJ) = ↓ I' ↑ = ↓
2.3 Expected number of fronted that-clauses with intransitive verbs

- comparison of initial that-clauses that are complements of transitive verbs vs. initial that-clauses of intransitive verbs; Old English texts only

- fronted complement clauses do in fact exist (2 examples); hence Traugott’s general claim that “noun clauses cannot occur in sentence-initial position” is in fact wrong

(21) [þæt God on urum geþohtum andwearde is], se witega gesweotelaþ þus cwęþende
  ‘That God is present in our thoughts, the prophet makes known, thus saying
  That God is present in our thoughts, the prophet makes known, thus saying’
  (cubenrul,BenR:7.24.11.356)

(22) ðæt he þa Eastran on hiora rihttid ne heold, […] iċ no ne herige.
  ‘That he did not keep Easter at its right time […] I do not approve at all’
  (cobede,Bede 3:14.206.20.2101)

- how many fronted that-clauses would be expected?

<table>
<thead>
<tr>
<th></th>
<th>that clause with transitive verb</th>
<th>that clause with intransitive verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>clause-initial</td>
<td>2 (0.084%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>after the subject</td>
<td>2,391</td>
<td>143</td>
</tr>
</tbody>
</table>

Table 3: That-clause fronting with transitive and intransitive verbs

- less than 0.1% of complement that-clauses are fronted,

- assuming that the rate of clausal topicalization is identical for that-clauses of any grammatical function, we would thus expect 0.12 examples of fronted that-clauses with intransitive verbs

- in fact, 0 examples are attested

2.4 Summary

- the positional argument is inconclusive

- lack of fronted that-clauses with intransitive verbs may be due to extremely low frequency of clausal topicalization in general and not due to their subject status

- accidental gap in corpus data; more data would be needed (about 8 times as much data for one example)
3 Arguments from Parsimony

3.1 Modal Passives

- subject *that*-clauses will result in an elegant parallelism between nominal and clausal arguments in modal passives

3.1.1 Definition of ‘Modal Passive’

- modal passives use a form of *be* plus a predicative *to*-infinitive to express (mainly deontic) modal meaning, “duty, obligation” (Visser 1963-73, §368)
- they involve object-to-subject raising (e.g. Fischer et al. 2000, 269-70)
- in Modern English, such structures have largely disappeared; *blame* is a fossil

(23) a. ... *pat* [God's word is [more to loue —] an ony eurly mete]
   ... that God's word is more to love than any earthly sustenance
   ‘... that God's word should be loved more than any earthly sustenance’
   (CMWYCNER,397.3091)

   b. ... [the thinges] that ben [to doone —]
   ... the things that are to do
   ‘... the things that should be done’
   (CMBOETH,451.C2.473)

   c. in the same wise is [he] [to blame —] that spendeth over-largely
   in the same way is he to blame who spends over-largely
   ‘In the same way, he who spends too much should be blamed / is to blame’
   (CMCTMELI,233.C2.647)

3.1.2 Argument

- modal passives involve object-to-subject raising because the raised argument shows nominative case

(24) [se *God* were [ to wurpigenne — ]
the.NOM God was to honor
 ‘This God should be honored’
 (coaelive,ELS[Martin]:459.6257)

- furthermore the raised argument agrees with *be*

(25) [Godes cwydas] sind [to smeagenne — mid swa micelre carfulnysse ]
God’s words are to consider with so great carefulness
 ‘God’s words are to be considered with great care’ (cocathom2,ECHom_HL.15:159.294.3525)

- the subject can extrapose

(26) micle swyjor is [to halsienne —] [calra gesceafta Drihten]
much greater is to implore all creatures’ Lord
 ‘But the Lord of all creatures must be implored much more greatly’
 (cobenrul,BenR:20.45.15.581)

- when the subject is extraposed, the subject tests still work - the raised argument is still the subject

(27) ponne beoð [him to sellanne — ] swipost [ba migolan drincan]
Then be plural him to give rather the diuretic drinks plural.NOM
 ‘Rather, [the diuretic drinks] should be given to him’
 (colaece,Lch_HL[2]:22.1.15.2458)
therefore, raised *that*-clauses can be treated analogously - they can also be subjects

(28) Ac [to gelywine _ is, [bet swylc deað þæs æfevan monnes swylce synne adilgode]
    but to believe _ is, that such death of the pious man such sins abolished
    ‘But [that such a death of the pious man did away with such sin] is to be believed’
    (cobede,Bede,3:16.228.23.2349)

- instead of using one object-to-subject raising analysis for DPs and another empty expletive raising analysis for CPs, the inclusion of subject clauses allows one unified analysis for both categories

3.1.3 What if both extraposed DPs and CPs involve empty expletives?

- the modal passive structures with DPs and CPs could be unified by introducing empty expletives everywhere
- however, the empty expletive would not really be motivated by another empirical fact
- another argument against empty expletives with extraposed DPs:
  1. clausal and nominal associates in Modern English cannot usually co-occur with one expletive in Modern English
     (29) a. There /*It emerged an answer.
        b. It / *There emerged that the solution was simple.
        c. *There /*It emerged an answer and that the solution was simple
  2. however, there is one sentence attested in Old English in which a modal passive subject DP is co-ordinated with a CP
     (30) On þan gelykyde _ is, [to secwe _]
         in this patience is to seek
         [forgyfenysse sped], & [na hwu se man muge his teona eðest gewreca]
         forgiveness opportunity and not how the man may his injuries easiest avenge
         ‘An opportunity for forgiveness, and not how one might most easily avenge one’s injuries,
         should be sought in this patience.’
         (coalcuin,Alc,Warn_35:213.153)
  3. therefore, the structure probably does not involve an empty expletive
     (problems: not a *that*-clause, presence of *not* may indicate gapping rather than ordinary coordination,
     this seems to be the only example)
3.2 A Gapping Example

- gapping often requires a great deal of parallelism in the order and type of grammatical functions of the initial conjunct, and the gapped non-initial conjunct

(31) [ [subject Mary] drank [object beer] ]
    and [ [subject Sally] drank [object wine] ]

(32) [ [subject Peter] gave [object a book] [oblique to Sue],
    and [ [subject Paul] gave [object a magazine] [oblique to Sally] ]

(33) * [ [subject Peter] gave [object a book] [oblique to Sue],
    and [ [subject Paul] gave [indirect object Sally] [object a magazine] ]

- grammaticality survey with five test questions to find a possible difference between subject clauses and that-clause associates

- 10 native speakers; considerable speaker variation; but overall statistically significant difference:

  1. subject clause in first conjunct can license gapping with full subject DP in second conjunct
  2. that-clause associates cannot license gapping with full subject DP in second conjunct
  3. normal VP-ellipsis shows the same contrast but in a relative, graded way

(34) a. Two things were reported recently:
    [subject That the Chinese were building a moon rocket] was reported on Monday,
    and [subject the result of the election] the day after.

  b. * Two things were reported recently:
    It was reported [associate that the Chinese were building a moon rocket] on Monday,
    and [subject the result of the election] the day after.

(35) a. better: Two things appeared unimaginable one hundred years ago:
    [subject That so many people would fly around in planes] appeared unimaginable,
    and [subject the small number of accidents] did too.

  b. worse: Two things appeared unimaginable one hundred years ago:
    It appeared unimaginable [associate that so many people would fly around in planes],
    and [subject the small number of accidents] did too.

- there is in fact one example in the Old English text corpus that contains a that-clause without it in the first conjunct and a gapped second conjunct with a DP subject

(36) ...

- peah &c. to þam fæder synderlice belimpe [þæt he bearn gestrynde] [...] 
- although to the father exclusively belongs that he child begets [...] 
&c. to þam halgan gaste [see forstæppung] 
and to the Holy Ghost the procession.

‘... although that he should beget a son belongs exclusively to the father [...], and [the procession] to the Holy Ghost’
(cocathom1,ÆCHomJ,33:463.141.6666)

- the that-clause is therefore likely to be a subject
4 Arguments from Differential CP Status

- under the empty expletive analysis, the status of the CP is identical with and without overt expletives;
  under the unmediated analysis, the CP is a subject in one case, but a complement in the other

- often root-clause phenomena are found in complement clauses, but not in other kinds of clauses like certain
  adjunct clauses and also subject clauses
  → analyses: CP-recursion after bridge verbs, CP-truncation (work by Haegeman), Rizzi’s split CP etc.

- therefore, if root clause phenomena are significantly more common in that-clauses with than without an
  overt expletive, this would support the unmediated analysis

4.1 Fronting in that-clauses

- fronting / embedded topicalization is a root clause phenomenon

  in Modern English, fronting can distinguish between it-associates and subject that-clauses (Authier 1992)

(37) a. It is nice [that Rachel visited Geneva.]
    b. * It is nice [that [Geneva], Rachel visited .]

(38) a. [That Rachel visited Geneva] is nice.

- problem: Old English may allow Spec,IP as a topic position in restricted, especially in broadly speaking
  unaccusative, contexts; thus fronting does not necessarily indicate a full-fledged CP-structure

(39) ... hwæðer [on ðam cwarterne] wæron ænige cristene menn for Godes geleafan belocene
... whether in the prison were any Christian men for God’s faith locked
‘...whether any Christian men were incarcerated in that prison for their faith to God’
(coaelhom,ÆHom_24:122.3840)

- nevertheless quantitative investigation may reveal a clause type difference

4.1.1 DP-Arguments

- DP-fronting vs. subject-initial clauses; clauses with and without it; that-clauses with overt complementizer

(40) a. þæ gelamp hit [þæt ðam gyftum] win æterorode
    then happened EXPL that the gifts wine lacked
    ‘It then happened that, as for the gifts, wine was lacking.’
    (cocathom1,ÆCHom_L_4:206.8.646)

b. þæ gelamp hit [þæt hi genealæhton [anre byrig] ]
    then happened EXPL that they approached a city
    ‘It then happened that they approached a city’
    (cocathom1,ÆCHom_L_10:258.10.1810)

c. ðonon gelomp [þæte [þæf seolfan moldan] monige men nemonde wæron ]
    thence happened that the same clay many men taking were
    ‘Hence it happened that the very clay was taken by many men’
    (cobede,Bede_3:7.178.5.1739)

d. þæ gelamp æfter þon [þæt þæs eadiga wer Sanctus Martinus [sum mynster] getimbrede ]
    then happened after that the blessed man Saint M. some minster built
    ‘Then it happened afterwards that the blessed man, Saint Martin, built a minster’
    (coblick,LS_17.1-[MartinMor[BLHom_17]]:217.102.2759)
the odds of finding an embedded fronted DP in structures without an expletive are about twice as high as in structures with an overt expletive (odds ratio: 2.03, 95%-CI: 0.24–95.28)

this would support an unmediated analysis

however, the effect fails to reach statistical significance (Fisher’s Exact Test for Count Data: $p=0.68$)

4.1.2 **PPs**

- same procedure as before but with PP-fronting; that-clauses with overt complementizer

(41) a. Sothly, ofte-timis it happins [bat *be be ordinance of be prioresse*] greuus sklaunders

 Truly, often-times EXPŁ happens that by the ordinance of the prioress grievous slander arises in monasterys ]

‘Truly, it often happens that grievous slander arises from the ordinance of the prioress in monasteries.’

(CMBENRUL,43.1345)

b. But [us hit bifelle [... *[bat Kyng Alurede hade be vittorie [with michel honoure] ]*]

but thus EXPŁ happened [...] that King A. had the victory with much honour

‘Thus it happened [...] that King Alfred had an honorable victory’

(CMBRUT3,110.3328)

c. On þæam dagum gëweard [þætte *on aure dune neah Romebyrig*] tohlad seo eor] [on those days happened that on a hill near Rome trembled the earth

‘In these days it happened that there was an earthquake on a hill near Rome’

(coorosiu,Or₄:2.86.28.1752)

d. ... wherfore it happeth many tyme and ofte [ that *[whan twey men han everich wounded oother]*, oon same surgien heeleth hem bothe ]

‘... that it might happen that God should send him the water of a donkey’s tooth’

(cootest,Judg:15.21.5762)

results are as before:

- the odds of finding an embedded fronted PP in structures without an expletive are about twice as high as in structures with an overt expletive (odds ratio: 2.20, 95%-CI: 0.61–12.01), which would support an unmediated analysis

- but again, the difference is not statistically significant (Fisher’s Exact Test for Count Data: $p=0.30$)

4.1.3 **Adverbial Clauses**

- Fronted Adverbial Clauses are only attested with *it*-expletives (5 examples)

(42) ... wherfore it happeth many tyme and ofte [ that *[whan twey men han everich wounded oother]*, oon same surgien heeleth hem bothe ]

(CMCTMELI,218.C2.60)

I failed to code the data for presence of adverbial clauses; counts out of all subject-initial *that*-clauses
Table 6: Fronting of subordinate clauses in *that*-clauses of intransitive verbs

<table>
<thead>
<tr>
<th>Fronted Adverbial Clause</th>
<th><em>it</em> verb <em>that...</em></th>
<th>verb <em>that...</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>All subject-initial clauses</td>
<td>5 (1%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

- once again the same results:
- the effect would support an unmediated analysis (odds ratio: Inf, 95%-CI: 0.33–Inf), but is not statistically significant (Fisher’s Exact Test for Count Data: $p=0.33$)

4.1.4 Other

- Subject Left-Dislocations are only attested with overt *it*-expletives (2 examples)

(43) but certes þus it bi-felle, [þat al the werç þat be masounes made aday], adoune it, felle anyght

- Verb-initial *that*-clauses of intransitive verbs are only attested with overt *it*-expletives (3 examples)

(44) Hit gelomp [...] [þet com to hys gemynde onwrignesse þet word þes arwurðestan fæder]

\[\text{EXPL} \text{happened} [...] \text{that} \text{came} \text{to} \text{his} \text{mind} \text{divine-power} \text{the} \text{word} \text{of} \text{the} \text{honorable} \text{father} \]

‘It happened that the word of the honorable father came to his mind by divine power’

(cochad,LS.3.Chad:184.114)

- this, too, would support the hypothesis that there is a clause type difference, but the evidence is merely anecdotal

4.1.5 Summary

- the trends in the data are coherent for every fronted category, which would be expected if there is a clause type difference

- none of these differences are significant

→ small sample size, accidental corpus transmission, alternative parses

4.2 Complementizer Drop

- Complementizer drop is much more common in complement clauses than in other clause types, including subject clauses

(45) It is no wonder [ (that) you haven’t got any friends].

(46) [*That you haven’t got any friends] is no wonder.

- Compare complementizer drop in *that*-clauses with and without an *it*-expletives

(47) a. So happed it on a tyme [ Ø he sat at mete with Kyng Edward]

(CMCAPCHR,101.2135)

b. So it happed [ þat he besegid a castel]

(CMCAPCHR,96.1956)

c. þa gelomp [...] [Ø ða ic hreowsende waes, ða ic mid ðy heafde & mid honda com then happened [...] [that] when I falling was, then I with the head and with hands came on ðone stan dryfan]

on the stone drive

‘Then it happened [...] that, when I was falling, I smashed my head and hand against the stone’

(cobede,Bede:5.6.400.26.4024)

d. þa sona æfter þysan belamp [ þat se arcebiscop Landfranc ferde to Rome]

(cochronA-10,ChronA[Plummer]:1070.15.1472)
Table 7: Complementizer drop in *that*-clauses of intransitive verbs

<table>
<thead>
<tr>
<th>Complementizer drop</th>
<th><em>it</em> verb <em>that</em>...</th>
<th><em>verb</em> <em>that</em>...</th>
</tr>
</thead>
<tbody>
<tr>
<td>No complementizer drop</td>
<td>512 (179)</td>
<td>179 (5%)</td>
</tr>
</tbody>
</table>

- complementizer drop is significantly more common in *that*-clause associates of *it* expletives than in *that*-clauses of intransitive verbs without *it* ($\chi^2 = 4.4$, df=1, $p=0.035$)
- this supports the hypothesis that *that*-clauses with and without *it* have a different status; with *it*, they allow more root clause phenomena like complement clauses; without *it*, they have less internal structure
- however, most cases of complementizer drop come from Middle English, i.e. at a time when *it* is already the norm; the comparison may not be completely balanced

4.3 Extraction

- extraction is often used as a test for grammatical function
- in general, extraction out of complements is fine; extraction out of subjects is ungrammatical

(48) a. It is necessary [that one does one’s homework]
    b. ... the homework which it is necessary [that one does _]

(49) a. [That one does one’s homework] is necessary
    b. * ... the homework which [that one does _] is necessary

- therefore, under the empty expletive analysis, we would expect extraction to be equally frequent in *that*-clauses with and without *it*-expletives; under the unmediated analysis *that* clauses without *it* are subjects and should show considerably less extraction

4.3.1 Problems with the test

- the proposed test is problematic
- Why is extraction out of initial subject clauses ungrammatical?
  1. subject status / extraction path / locality considerations
  2. position; subject clauses are usually in Spec,CP; no higher topic position available in English

- position probably plays at least in part a role; since *that*-clause arguments of intransitive verbs are not clause-initial in Old English, they may in fact allow extraction
- many factors: graded acceptability, processing, derived vs. underived subject etc.

(50) * [Which man] was [the friend of _] fired?
(51) [Which president] would [the impeachment of _] cause outrage?

- therefore, extraction is at best more probable out of *that*-clauses with than without expletive *it*, but may not be a fool-proof diagnostic of their grammatical function
4.3.2 Extraction examples

- queries for extraction in YCOE and PPCME2
  \[\rightarrow\text{extraction is extremely rare!}\]

- evidence is only anecdotal

- I only found one clear example of extraction; it occurs with an expletive

\[(52) \begin{array}{c}
\text{[pas |ping] hyt gebyrede [pæt ge dydon |]}
\text{these things it behoves that you do}
\text{‘These things, it is fitting that you do’}
\text{(cowsgosp,Mt[WSCP]:23.23.1613)}
\end{array}\]

- two more potential examples: one probably involves extraction of an adjunct, the other perhaps extraction of an operator

\[(53) \begin{array}{l}
\text{a. [bat [tremlyngge and quakyngge] hit semede [bat he stood | to-forn his dreadful domesman at | pе day of done.]}
\text{(CMAELR3,32.165)}
\text{b. ... als it semes [bat | pou hase done | |i body]}
\text{(CMROLLEP,93.508)}
\end{array}\]

- I did not find any examples of extraction out of a that-clause without an expletive

4.3.3 Summary

- the evidence from extraction is extremely weak

- however, it is not incompatible with the unmediated analysis

5 Conclusion

- It is extremely difficult to find conclusive evidence for or against null expletives with that-clauses of intransitive verbs

- however, the admission of subject clauses into the grammar of early English has some conceptual advantages

- the grammar becomes somewhat more parsimonious; no additional rules are needed (modal passives)

- none of the quantitative analyses reach statistical significance (fronting, extraction), but each one of them is compatible with the unmediated analysis; in isolation, the tests are not powerful, but when taken together, they may in fact make subject clauses more likely

- by Ockham’s razor we should not assume empty elements unless they are required; would we really assume empty expletives if overt expletives hadn’t emerged in the history of English?
References


Verbs in English can be divided into two groups: Transitive verbs and Intransitive verbs. **TRANSITIVE VERBS.** Transitive verbs require an object to complete their meaning. Because **BOUGHT** (the past of buy) is a transitive verb and a transitive verb needs an object after it to complete the sentence. The object after a transitive verb can be a noun or a pronoun. I bought a car. Now the sentence is complete and we can understand it. In grammar, an intransitive verb does not allow a direct object. This is distinct from a transitive verb, which takes one or more objects. The verb property is called transitivity. Intransitive verbs are often identified as those that can't be followed by who or what. In the following sentences, verbs are used without a direct object: “Rivers flow.”. “I sneezed.”. “My dog ran.”. “Water evaporates when it’s hot.”. “You’ve grown since I last saw you!”. “I wonder how old I will be when I die.”. Singular subjects need singular verbs, while plural subjects require plural verbs. â€œBeâ€™ verbs change the most according to the number and person of the subject. Other verbs do not change much on the basis of the subjects except the verbs of the simple present tense. If the subjects are a third person singular number, the verbs are used with s/es when they are in simple present tense. The verbs with s/es in the sentence are called singular verbs. â€œBeâ€™ verbs according to number and person of the subject. Person/Number. Singular. Occasionally intransitive verbs appear with a cognate object. morpheme. the smallest meaningful unit. Words can be made up of one or more morphemes. See also bound morpheme, free morpheme. morphology. All of the other arguments have appeared after the verb. As we see by the following sentences, this is an essential fact about grammatical English sentences: (37). Â We do not get an expletive in a complement position of intransitive verbs, which do not subcategorise for a complement: (48). a.