

“Out of the RUB emerged the gaggle of linguists!”



RUB

RUHR-UNIVERSITÄT BOCHUM

## LOCATIVE INVERSION IN THE HISTORY OF ENGLISH

*a spoonful of innovation and a pinch of continuity*

BENJAMIN L. SLUCKIN

The Theory and Historical Development of Expletives (and non-referential arguments)

Bochum 9.10-10.10.2022

# Today's talk

- **Synchrony:**

- Introduce a theory of Locative Inversion for English, among other languages, developed in my recent PhD Dissertation (Sluckin 2021) = I will be unashamedly citing myself on occasion
- Locative Inversion (LI) is a syntactically marked XVS construction in which a spatio-deictic XP appears to occupy the canonical subject position and the nominative DP subject inverts.

(1) *In the church appeared a ghost.*

- **Diachrony:**

- Apply this theory to historical Englishes, Old English to Early Modern English using a large corpus study based on the Penn-Parsed Corpora of Historical English
- Is there evidence for LI already in V2 stages of English?
- What are the implications for the development of LI, expletives and EPP in English?

# Roadmap:

- Part I: Synchrony of Locative Inversion
  - Properties of LI
  - EPP-satisfaction
    - Via locative XP
    - Via a silent expletive
    - A new proposal: a silent logophoric argument
- Part II: Diachrony of Locative Inversion
  - The diachronic Problem: Reconciling V2 and LI
    - Dutch LI vs Old and Middle English: a qualitative study
    - Emergence of LI: a quantitative corpus study 1150-1915
  - A diachronic syntactic analysis: migrating subject requirements and reanalysis
  - Conclusion

Part I

Locative Inversion

What is it and how does it work?

# Properties of Locative Inversion I: the arguments

- Subject under Broad Focus (presentational/wide) with the verb, i.e. entire event under focus (Pinto 1997, Sheehan 2006, Sluckin et al. 2021, among others).
- (2) Q: What happened next? (Broad Focus)      Q: Who ran into the room? (Narrow Focus)  
A: Into the room [ran a/the little boy]!      A: #Into the room ran [a/the little boy].
- Preposed spatial XP (locative/goal/source/path) must be as or more familiar than late subject (cf. Birner 1996, Huddleston and Pullum 2002) but not obligatorily given!
- (3) a. Out of \*a/the house came a Goldilock/a girl/the girl.      \*NEW-OLD, OLD-NEW, OLD-OLD,  
b. On a square in an old French town stood an ornate cathedral. NEW-NEW
- Preposed locative = Subject of Predication (SoP) Something to which the predicate is applied (Aristotle 350 BCE; Cardinaletti 2004; Rizzi 2005, 2018; Bentley & Cruschina 2018; Sluckin et al. 2021, Sluckin 2021)
    - Like Topic but no d-linking requirement = [+ Aboutness, - D-linking] (Sentence Topic)
    - Depending on language, SoPs can be Locatives, dative experiencers, situational arguments

# Properties of Locative Inversion I: the verb

- Unaccusatives mostly limited to motion/existence/speaker oriented stative unaccusatives (2a,b) or unergatives coercible as such (2c)
  - (4) a. Out of the woods came a mountain Lion. (resultative unaccusative)
  - b. On the town square stood the old church. (stative unaccusative)
  - c. Into the valley of death rode the six hundred! [Tennyson, 1854] (coerced unergative)
- Manner/activity unergatives generally out, no change-of-state (Cos) unaccusatives, no transitives.
  - (5) a.\* To the bottom of the sea sank the boat. (CoS unaccusative)
  - c. \*In the house was clapping a boy. (uncoercible unergative)
  - d. \*Into the room threw John the ball. (transitive)
- Motion unergatives coercible when telic (Hoekstra & Mulder 1990, Levin & Rappaport Hovav 1995); manner reading of some motion and activity unergatives coercible as stative unaccusatives, i.e. be in a state of X in location Y (Sluckin 2021).

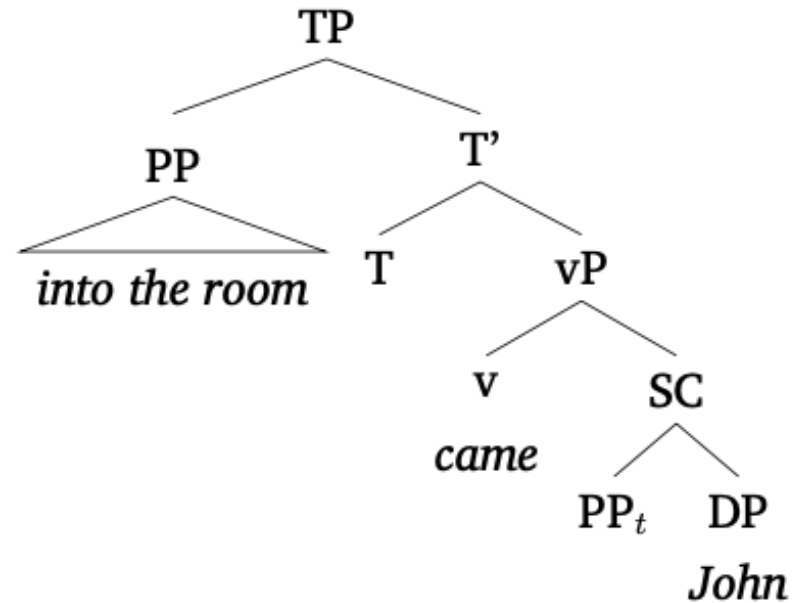


# Synchronic syntactic problems:

PP<sub>LOC</sub> with expletive function or expletive *pro*

# Problem: How is EPP on T valued?

**Camp 1 (and ½) :  $XP_{Loc}$  to/via Spec,TP, i.e. PP subject** (Stowell 1981; Bresnan 1994; Levin & Rappaport-Hovav 1995; Collins 1997, among others)



n.b. No v-to-T movement in English

- Assumption: EPP = [ $uD$ ,  $u\phi$ ] on T (cf. Chomsky 1995, 2001, 2008)
- On this take, the raised locative has a semi-expletive function a la Holmberg (2000) (but not exactly), i.e. it is not a syntactic topic but a PP-subject (cf. Culicover & Levine 2001)



# Problem: How is EPP on T valued?

## Camp 1 (and ½) : $XP_{Loc}$ to/via Spec,TP

- Relates to old idea that P and N are alike (Ross 1967; Grimshaw [1991] 2005)
  - Topicalized PP shows Weak-Crossover effects (WCO), LI not (Culicover & Levine 2001; Dogget 2004)
- (6)
- a. \*In every dog<sub>1</sub>'s cage its<sub>1</sub> collar hung. (topicalization, WCO)
  - b. \*In every dog<sub>1</sub>'s cage there hung its<sub>1</sub> collar. (topicalization, WCO)
  - c. In every dog<sub>1</sub>'s cage hung its<sub>1</sub> collar. (locative inversion, no WCO)
- That-trace (anti-complementizer) effects purport to show movement to (and through) Spec, TP (Bresnan 1977, 1994; Stowell 1981)
- (7)
- a. [Into which room]<sub>i</sub> did you say [S'[e]<sub>i</sub> [[e]<sub>i</sub> walked the children]]?
  - b. \*[Into which room]<sub>i</sub> did you say [S' that [[e]<sub>i</sub> walked the children]]?

# Problems with $XP_{Loc}$ to Spec,TP I

**Problem 1: Cannot explain a root-embedded asymmetry.** (generally robust)

(8) We \*know/\*expect/??witnessed/??said that into the room came John.

Indicates PP to C-domain movement (Stowell 1981; Coopmans 1989; Roberts 2010)

**Well-known Solution:** Loc moves through Spec,TP to Spec,CP (Hartmann 2008, Roberts 2010; Sluckin et al. 2021)

- Still unclear why embedded LI is bad; Spec,TP should be blind to information structure in English.
- Requirement for vacuous topicalization is tenuous (den Dikken 2006:100)

**Problem 2: Experimental work shows PP-topicalization not robustly subject to WCO** (Bruening 2010, 2021)

- (9) a. LI: To the left of every princess stood her lady in waiting with an extra cape.      **LI**
- b. To the left of every princess, her lady in waiting stood with an extra cape.      **PP-Top**

Consequence: WCO does not prove the loc XP in LI is subject.

# Problems with $XP_{Loc}$ to Spec,TP II

**Problem 3: That-trace/anticomplementizer effect sensitive to phonetic exponents and possibility of root-transformation:**

- “There must be overt material between an overt complementizer and a subject position with no phonetic exponents.” (Postal 2004, Bruening 2010:52)

(10) a. \*[In which house]<sub>i</sub> did you say/claim [(*\*that*) lived the Jones’]]?

b. ?[In which house]<sub>i</sub> did you say/claim [that **there** lived the Jones’]]?

c. ?[In which house]<sub>i</sub> did you say/claim [that **for all intents and purposes** lived the Jones’]]?

- LI *that*-trace examples always take strong assertive verbs (Class A or B) which select clausal complements (cf. Hopper and Thompson 1973); the less assertive, the worse it gets...

(11) Into which house did you ?suppose(B)/?(?)doubt (C) /??(*\**)regret (D)/??know (E) (*\*that*) walked the Jones

This observation needs proper testing (data based on 3 speakers) but if correct, then *that*-trace tests are irrelevant/weakened for status of Spec,TP in LI = **constraint on extraction across clause boundaries**

# Problems with $XP_{Loc}$ to Spec,TP III

## Problem 4: Optionality of overt expletive *there*

(12) a. [Into which room] did you say *there* walked some children]?

b. On that hill *there* appears to be located a Cathedral.

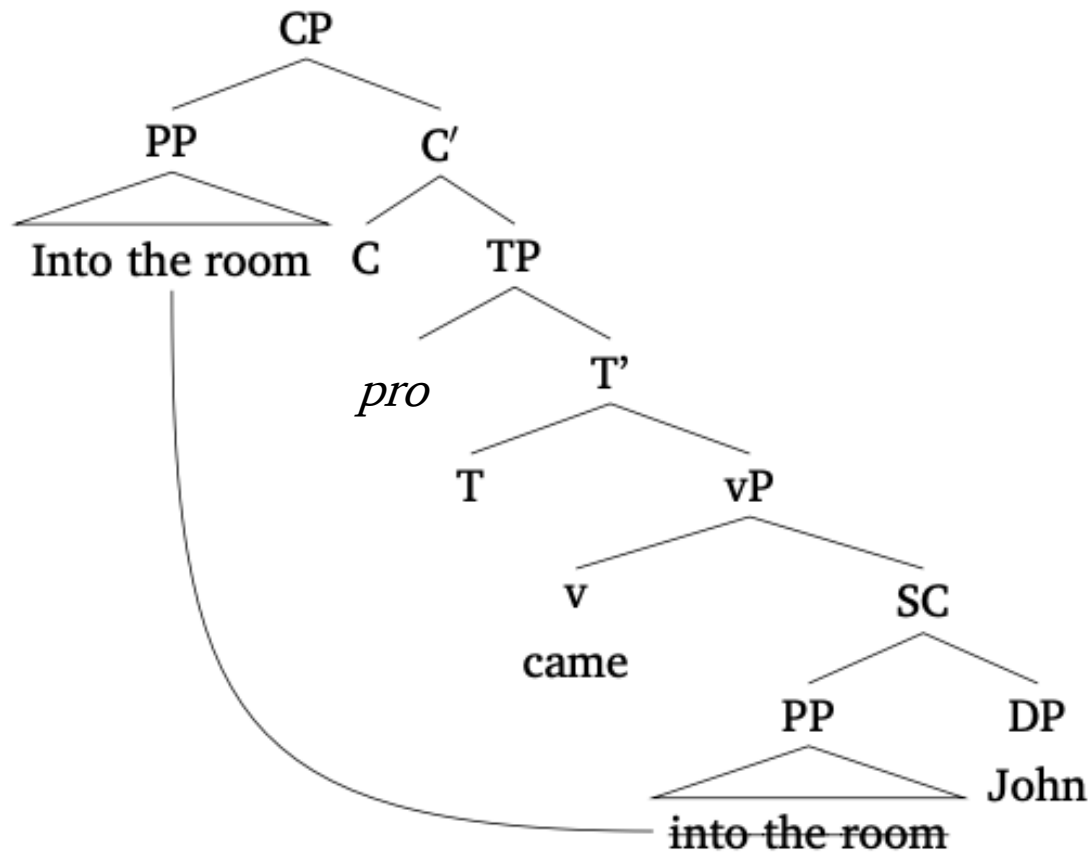
- Indicates direct movement to CP if *there* is understood as expletive.

## What controls optionality of locative PP and *there* targeting Spec,TP?

- Information structure is the same... (all broad focus)
  - Presentational/broad focus
- Argument structure requirements of LI and *there*-insertion 99% the same
  - No CoS unaccusatives, no verbs with external arguments (Sluckin 2021, Alexiadou & Schäfer 2011)

# A silent expletive hypothesis I (Coopmans 1989, Postal 2004, Bruening 2010)

**Camp II: There is a silent expletive *pro* in Spec,TP and the locative PP goes to Spec,CP**



- Solves the *that*-trace issue (no phonetic exponence after *that*) (cf. Postal 2004, Bruening 2010)
- Solves the root-embedded asymmetry and optionality of PP or *there* to Spec,TP
  - PP always to Spec,CP
- No need to posit vacuous topicalization from TP (*pace* den Dikken 2006)
- Expletive *pro* then binds *there* in tag questions (Postal 2004, Bruening 2010)

(13) In the caved lived a bear, didn't there/?it

# A silent expletive hypothesis II: Problems

- Why no embedded V1 with low locatives – must *pro* be C-command by PP. Weird for expletive!

(14) \**We know that pro lives a boy in the woods*

- Whence the optionality between overt and covert expletive?
  - Bruening (2010) claims they are essentially one and the same but *there* selected by a Special Purposes [ $\pm$ SP] feature (maybe a little ad hoc)
- Why does *there* but not *pro* trigger Definiteness Restrictions (DR), if they are the same thing?

(15) a. There came a/\*the girl into the room

b. Into the room came a/the girl

Fix 1: *there* necessarily existential (semantic DR) but silent *pro* not existential (not optionality)

Fix 2: DR determined by argument structure (cf. Belletti 1988, Fischer 2016, among others) (is this optionality?)

**Generalization:** two internal in-situ arguments under *v* give rise to DR (Sluckin 2021)

# A silent expletive hypothesis III: Problems

- PP-internal DP ellipsis degrades overt *there*-insertion

(16) *We were waiting under the back window and out (??there) jumped a thief!*

(17) *There was a knock at the door and in (??there) came a plumber!*

- Expletive *there* in LI dependent on full-DP in the PP
- Why would an expletive *pro* be any different?
  - Potential Fix: *there* raised from v-internal Small Clause (Moro 1997) and associated with locative argument but expletive *pro* isn't, i.e. a true TP expletive?
  - But why would English preserve expletive *pro* only in such circumstances (it was apparently lost in Middle English see Haerbeli 2002, among others ) but not in simple existentials.

**Conclusion:** expletive *pro* creates almost as many problems as it solves



# An alternative to *pro*<sub>EXPLETIVE</sub>:

In the pursuit of full interpretation

# LI is evidential I:

**LI is subject to a range of constraints that cannot easily be derived in the syntax.**

No sentential negation (a), no present perfect (b), no irrealis modality (c), no late pronoun subjects (d).  
Key for us are a,b,c.

- (17)
- a. \*/#Into the room didn't come Mary.
  - b. \*/# Into the room has come Mary.
  - c. \*/# Into the room might come Mary.
  - d. \* Into the room came she. - Subj pronouns must move to Spec,TP

**Discourse Immediacy Constraint (DIC)** (Laparle 2020):

LI must introduce a referent to the Narrative Center (NC) at reference time (RT), where the NC is the established location of the situation under discussion immediately prior to the utterance.

# LI (and expletive *there*) is evidential II (Sluckin et al. 2021, Sluckin 2021)

- An inferred event is infelicitous

(18) #Given the footsteps in front of the door, out of the house came Goldilocks.

- Denial of perception is degraded

(19) I was watching from behind the bushes as out of the house came Goldilocks.

(20) ?I did not see as out of the house came Goldilocks.

- Mirative adverbs can prepose or modify LI clause, where others can't. *suddenly* adverbs are special and introduce an implicit logophoric argument (Piñón 2012).

(21) And suddenly appeared a rainbow!

(22) And suddenly/#probably/??quickly out of the window jumped the cat.

- Verbs that do not entail perception of the state/result of an event cannot participate in LI, e.g. motion away from the speaker and disappearance.

(23) #In the cave disappeared a child! = (cannot perceive the theme within the result)

# LI is evidential III: Proposal (based on work with Fabienne Martin)

- LI requires an appearance event /existential state to be witnessed directly as new to the perceiver = amounts to the emergence of a new element - the postverbal DP's referent - in the experiencer's field of perception.
- This perception event is associated with its own time interval, which gives the topic time (also reference time) of the appearance event.
- Laparle (2020) captures this behaviour (more or less) through a pragmatic constraint but let's syntactify this:

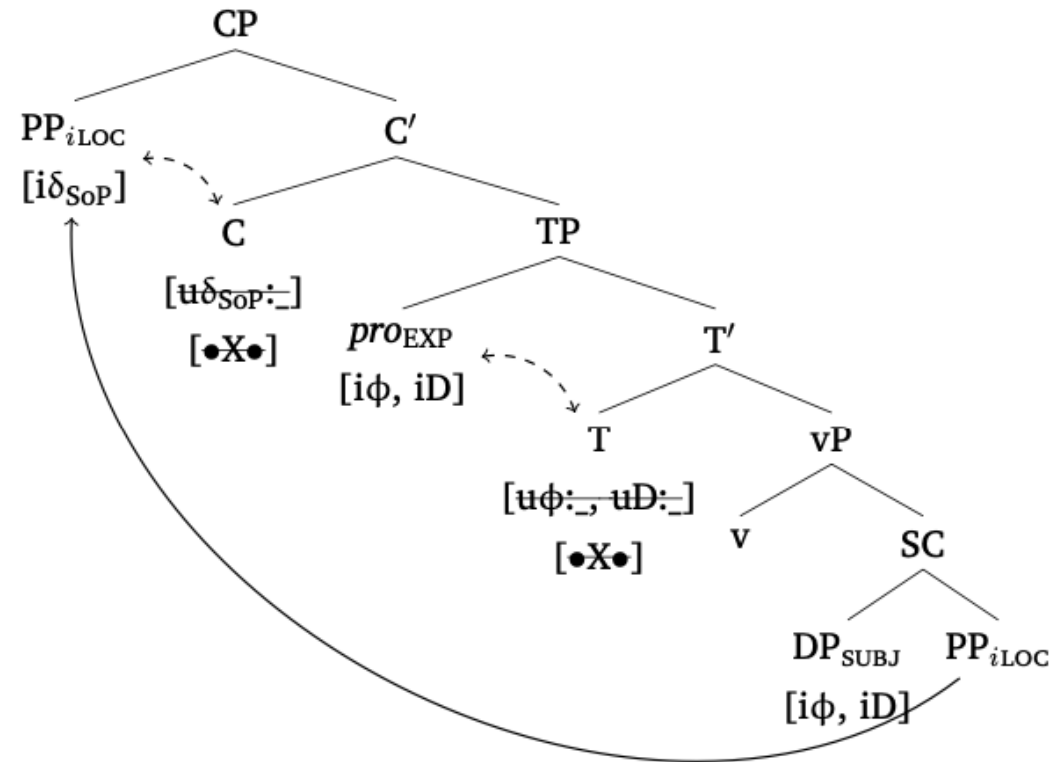
## Proposal:

- The EPP is valued by a syntactically active covert observer argument, i.e. an experiencer *pro*<sub>EXP(ERIENCE)</sub>
- This can only be licensed by verbs of directed-motion/speaker-oriented motion/appearance/existence in a location; explains patterning with *there*

# What else can *pro*<sub>EXP(ERIENCER)</sub> do?

- Experiencers are inherently locative – mental locations (Landau 2010) = can bind *there* in tagged questions without recourse to silent expletive (*contra* Bruening 2010)
- Incompatible with negation = can't observe nothing
- Incompatible with present perfect = *pro*<sub>EXP</sub> forces so-called pronominal tense but present perfect incompatible with salient past time (cf. Partee 1973, Zhao 2019, Sluckin 2021) provided by *pro*<sub>EXP</sub>, i.e. the reference time of the event.
- Can explain DR with *there* but not LI (ask later, no time for the whole story)
- Explains lexical-semantic limitations = only licensed by verbs that can give rise to impression of emergence of a new element in the experiencer's field of perception
  - Rules out degraded disappearance and motion away from speaker verbs in LI.
  - Ask me about existentials later...

# What's going on in the syntax?



[CP[PP*Out of the house*]<sub>i</sub>][TP*pro*<sub>EXP</sub> [T [vP *v*came [SC [DP *Goldilocks*]]<sub>PP*i*</sub>]]]]

## Assumptions:

- English C hosts discourse-related  $\delta$ -features (Miyagawa 2017) including one specified for SoP [ $u\delta_{SoP}$ ] which can probe locative XP.
- EPP = [ $uD$ ,  $u\phi$ ] on T (Chomsky 2001, 2008)
- [ $u\delta_{SoP}$ ] and [ $uD$ ,  $u\phi$ ] associated with structure-building edge features [ $\bullet X \bullet$ ] (cf. Müller 2014)
- *pro*<sub>EXP</sub> underspecified  $\phi$  & no Case etc.  $\rightarrow$  does not trigger agreement

## Operations:

- *pro*<sub>EXP</sub> values EPP (probably movement)
- Locative XP values [ $u\delta_{SoP}$ ] via A' movement
- Single argument left in vP = no DR

Part II

Whence Locative Inversion in English?

A corpus study



# The diachronic problem:

- LI superficially resembles V2, i.e.  $XV_{FIN}S$ , but Present Day English (PDE) is not a V2 language, neither is LI residual V2 (Roberts 2010)
- (24) a. In the corner of the room was (\*a boy) sitting ( $\sqrt{\text{a boy}}$ ) – no intervening subj!  
b. In the corner of the room \*(there) was (\*there) a boy sitting - no intervening subj-expl!  
c. There was a boy sitting in the corner of the room - still not V2 (see Deal 2009)
- Old English (OE) and Middle English (ME) **were** V2 languages
- **The challenge:** Was LI hiding in plain sight in V2 times or was it innovated during/following the loss of V2?

# Starting point:

- Empirical study of LI-candidates chiefly from 1150 to 1915, i.e. ME and onwards via corpus-based and light quantitative methods;
- Competing VO and OV in OE (pre 1150) complicates things for this small study; we discuss OE data where relevant but it is absent in the figures.
- Early and Mid-ME were largely VO and V2 (still some OV/VO competition in early ME)
- Rise of expletive *there* in ME
- Mid-Late ME sees the loss of V2 (loss of V-to-C)
- Early Modern English (EME) (1500-1700) sees further decreases in inversion types and the loss of V-to-T movement.

# Step 1: What can LI in V2 Dutch tell us about the history of English?

The (not so) complementary distribution of locatives and *pær/ther* ‘there’ in the history of English

# LI and V2: can they co-occur and how to tell?

- V2 Dutch shows some LI-like behaviour in unaccusative and impersonal contexts (Zwart 1992):

(25) impersonal passives, expletive *er*, LI

a. *Gisteren werd ??(er) gedanst.*  
 yesterday became.PASS.3SG EXPL danced  
 ‘Yesterday people were dancing in the garden.’

b. *Gisteren werd in de tuin gedanst.*  
 yesterday became.PASS.3SG in the garden danced  
 ‘Yesterday people were dancing in the garden.’

b. *In de tuin werd gedanst. (LI)*  
 In the garden became.PASS.3SG danced  
 ‘Yesterday people were dancing in the garden.’

```

=====
|| Assumption: V-to-C analysis for all Dutch V2
|| (cf. Craenenbroeck & Haegeman, but contra Zwart 1993, 1997, 2005)
|| [CP XPC VFIN [TP XPLOC/erT ... (13a,c)
|| [CP XPLOCi C VFIN [TP XPLOCi T ... (13b)
||
=====
  
```

**Important diagnostic: TP subject expletive\* *er* is bled by the locative XP** – seems to value subject-related EPP.

- Locative adverbs/PPs adjacent to V<sub>FIN</sub> bleeds locative-expletive *er*
- Temporal adverbs cannot (2a,b) vs 2(c,d).

# Did V2 English(es) show Dutch-like LI with *pær/ther* ?

- Examples that should be marked in a Dutch-like system (4a,b,c); the adjacent locative should bleed expletive there in Spec,TP but it doesn't.

(26) a. *Ðonne is pær [on neaweste] um swiþe mare burh* **OE, late 10<sup>th</sup> century**

Then is there.EXPL in neighbourhood some very famous city

'Then there is a very famous city in the neighbourhood'

(Blickling 197: 18, cf. Breivik 1991: 36)

b. [*Of þi flesches fettles*] *kimeð þer smel of aromaz; oðer of swote basme* **Early ME, c.1230**

from your flesh vessel comes there.EXPL smell of aroma or of sweet balm

'There is a smell of *aromaz* or sweet balm coming from your body' (CMANCRIW-1-M1,II.202.2897)

c. *Now is there [here] shewed you from the begynnyng of thre men of laudable Memory...* **Late ME c.1495**

now is there.EXPL here.LOC showed you from the beginning of three men of laudable memory.

'Now you have been shown from the beginning by three men of laudible memory...' (CMFITZJA-M4,B6R.202)

- If incipient LI existed in OE/ME, it didn't match Dutch 100% or the presence/absence of *there* is not an accurate diagnostic.
- Topicalised XPs were landing in Spec,CP – Cooccurrence of preposed locatives and *there* in Spec,TP are possible in PDE

# LI-like inversions with preverbal locative and temporal XPs

- (27) [uppon grete plates of gold] was i-steked on of þe foure irene nayles ...  
upon great plates of gold was attached one of the four iron nails  
**Mid ME, 1387**  
(CMPOLYCH-M3,VI,427.3116)
- (28) [*And longe tyme after*] come Cadwalayn aʒeyne fram Irlande ...  
And long time after came Cadwalayn back from Ireland  
And a long time after Cadwalayn came back from Ireland (CMBRUT3-M3,101.3035)  
**Mid/Late ME, c. 1400**  
PDE ??
- (29) And within fyftene dayes [ther] came Merlyn amonge hem into the cyte of Carlyon.  
And within fifteen days there came Merlyn among them into the city of Carlyon  
'And within fifteen days Merlyn came to them at they city of Carlyon.'  
**Late ME, 1470**  
PDE?/LI in V3?  
(CMMALORY-M4,12.342)
- (30) [*And that same yere*] was slayne the Erle of Arundelle in France.  
And that same year was slain the Earl of Arundelle in France  
'And that same year, the Earl of Arundelle was slain in France.'  
**Late ME, c.1475**  
PDE \*  
(CMGREGOR-M4,177.1137)

- General picture quite V2-ish for most of ME: LI cannot be ruled in or out given lack of reliable diagnostics
- Unambiguous late subjects are best indicator but inversions don't consistently match lexical-semantic profile of PDE LI.
- *Ther* in (5) locative and not like modern expletive - lacks indefiniteness requirement

# Interim summary data so far:

- Incipient LI or structures superficially resembled it in ME did not consistently behave like LI in Dutch.
- If LI was there, the only indication is the lack of overt expletive *there*
- Fronted Locatives, Temporals, and PPs of either sort appeared to be targetting CP, as they do today.
- Precedent for modern LI visible ME – presence of LI-like inversions without *there*, generally consistent topicalisation of temporal/spatio-deictic elements in C-domain with *there* and presumably without as part of V2 or post-V2 syntax.

**Theoretical question:** what to do with the EPP and there-less inversions + low subjects?

- $pro_{\text{expl}}$  (Haeberli 2002), features on  $V_{\text{FIN}}$  (Kroch & Taylor 1997), feature movement (Fuß 2003)
- We'll get back to this...

**Empirical question:** Is there anything in the data around the loss of V2 to suggest something special about LI?



# Step 2: A corpus study

Tracing LI from Middle English to Modern British English: 1150-1915

# Corpus Study: LI – 1150-1915

**Sources:** Penn-Helsinki Parsed Corpora of Historical English (PPCHE)

- PPCME2 - Middle English c.1150-c.1500 (Kroch & Taylor 2000)
- PPCEME – Early Modern English c.1500-c.1720 (Kroch et al. 2004)
- PPCMBE2 Modern British English c.1710-c.1915 (Kroch et al. 2016)

Controls: various for weight (no HNPS), negation, pronouns, transitivity

Today we'll mostly be concentrating on the results up until EmodE.

## Broad Results:

- Matrix LI always more frequent
  - 321/780 manuscripts → 203 with  $\geq 2$  hits
- Embedd LI was always rare but not impossible:
  - 42/780 sources have it → Only 14 with  $\geq 2$  hits
  - Sources especially sporadic after 1600

## LI-candidate inversion in matrix clauses

Manuscript date	XP <sub>LOC</sub>	XP <sub>TMP</sub>	PP	Total
1150-1250 M1	92	63	327	482
1250-1350 M2	9	18	40	67
1350-1420 M3	50	90	97	237
1420-1500 M4	132	184	243	559
1500-1569 e1	39	31	69	139
1570-1639 e2	59	102	54	215
1640-1720 e3	75	49	87	211
1710-1799 ModB1	37	23	68	128
1800-1879 ModB2	35	15	69	119
1880-1915 ModB3	21	7	32	60
<b>Total</b>	<b>549</b>	<b>582</b>	<b>1086</b>	<b>2217</b>

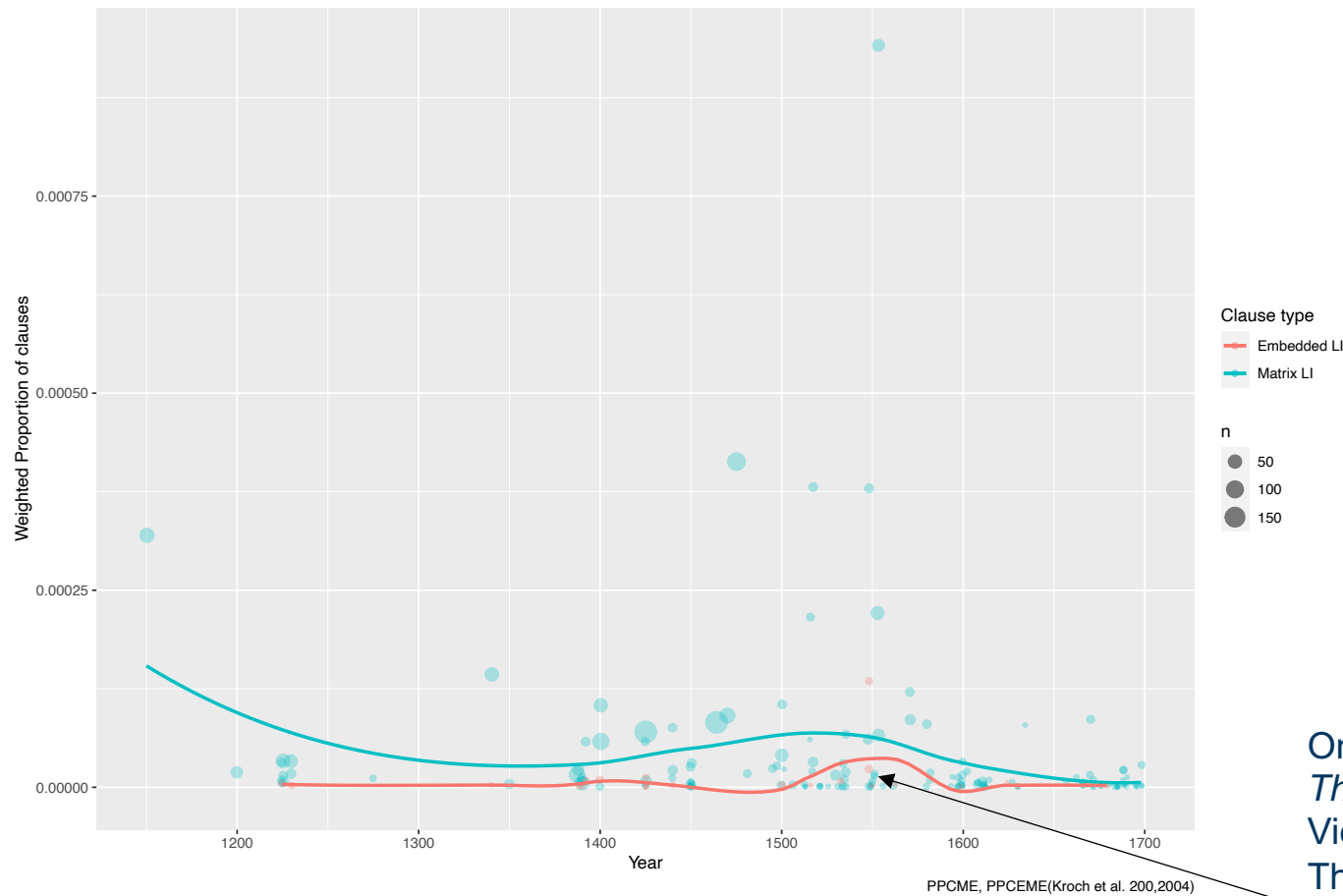
## LI-candidate inversion in embedded clauses

Manuscript date	XP <sub>LOC</sub>	XP <sub>TMP</sub>	PP	Total
1150-1250 M1	0	1	6	7
1250-1350 M2	0	0	1	1
1350-1420 M3	0	4	16	20
1420-1500 M4	0	1	6	7
1500-1569 e1	0	0	18	18
1570-1639 e2	1	1	3	5
1640-1720 e3	1	0	2	3
1710-1799 ModB1	0	1	5	6
1800-1879 ModB2	1	0	4	5
1880-1915 ModB3	0	0	1	1
<b>Total</b>	<b>3</b>	<b>8</b>	<b>62</b>	<b>73</b>

Key:  
 M = Middle English  
 e = Early Modern English  
 ModB = Modern British English

# Embedded LI-like inversion was always very rare

Weighted scatter plot of matrix and embedded LI  
from Middle English to Early Modern English: 1150–1700



- Weighted for text size (hence the tiny numbers)
- It looks like embedded LI had some fun in the 17<sup>th</sup> century, but alas only Thomas Vicary had some fun.

(31) “note that from the ventrikles flow the blood”

One text (three psd files) causes this blip:  
*The anatomie of the bodie of man* by Thomas Vicary, 1548 n=13 sub, n= 40 mat  
This guy LOVES inversion!

# Pinpointing LI

- In deciphering the innovation of LI, we expect some intersection points with features that are impossible/strongly dispreferred in LI but not V2
  - Sentential Negation in relevant intransitive inversions – without controls- was already far more infrequent than the controlled LI sample in Early Middle English.
  - Modern LI is resistant to the present perfect; we predict a drop off in LI-like structures with *have*
  - We might expect an intersect between fronted locative and temporal adverbs using the larger PPCHE data set. PPCHE is not lemmatized; we can compare the larger groups but not specific instances
    - Baekken (1998: discourse adv *therefore*, temporal adv e.g., *then, now*, drop off in frequency of *therefore, then, now*, etc. in late EmodE 1680-1730).
    - Not clear this is indicative of LI being innovated, rather than the others being lost
  - We also expect a drop in pure locative adverbs as some lexemes drop out of the language, e.g. *hither, thither, yonder*, and PP equivalents take their place – PPs are unfortunately not tagged for temporal or locative function.

# An construction-internal view of matrix LI: grouped data points from 1150-1915

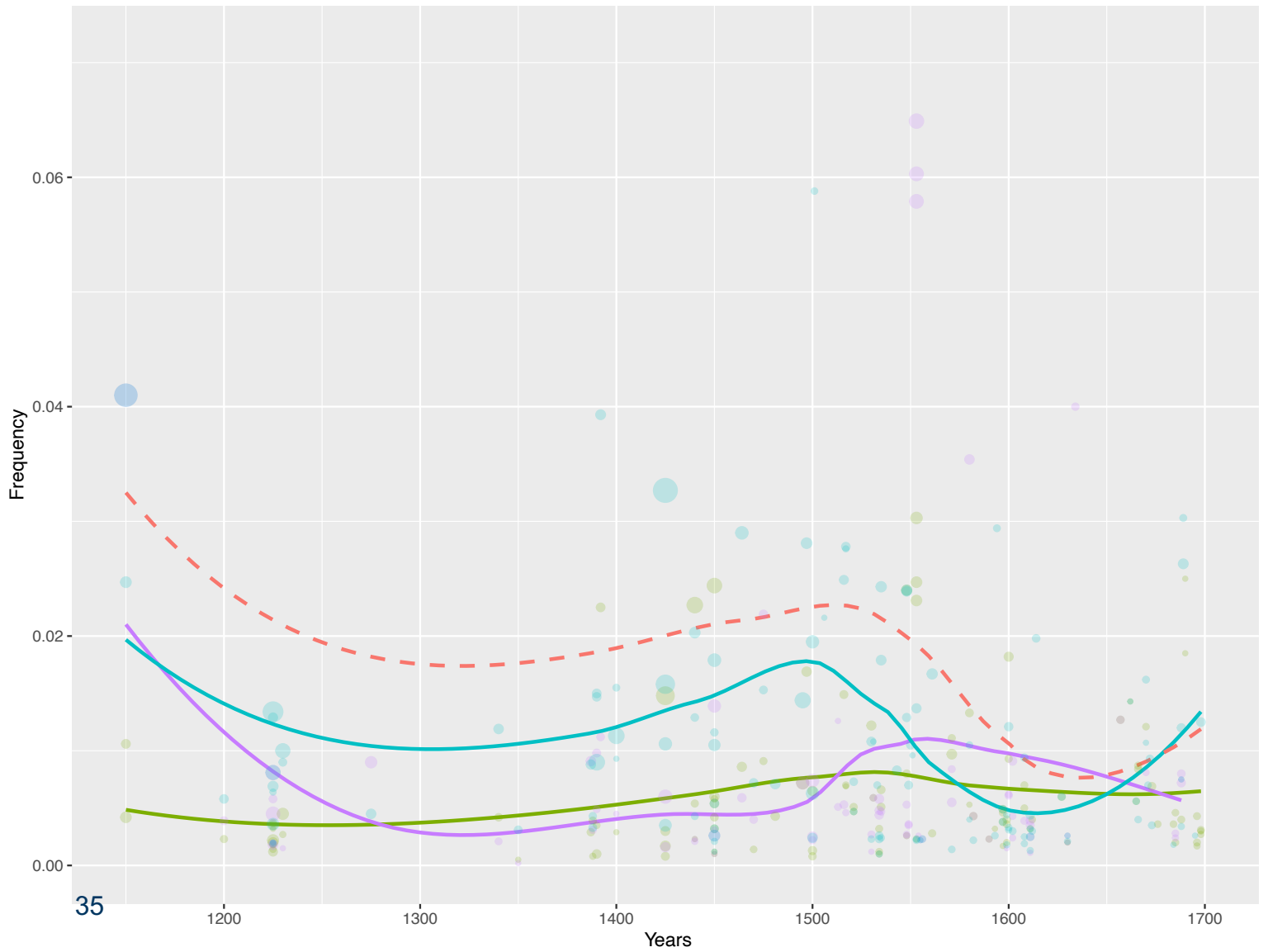
Relative Frequency of Preverbal XP types in LI  
as a proportion of all LI: 1150–1915



- Temporal XPs drop away in the Early Modern English period after a brief rally “terminal lucidity”.
- Locative adverbs rise gradually over time as a proportion of LI
- PPs drop and rise again (readjustment in post V2 system)
- LI recognisable as special inversion context by Late Early Modern English (cf. Baekken 1998, Haerberli 1999): **17th century Early Modern English**
- But this is not evidence that it wasn't already there in some form but hiding... it's not just about where it sticks out!

# Construction-external view of matrix LI: ME to EmodE (% of matrix clauses)

Preval XPs in LI  
 preposed temporal, locative, and prepositional phrases: 1150–1700



## A different view

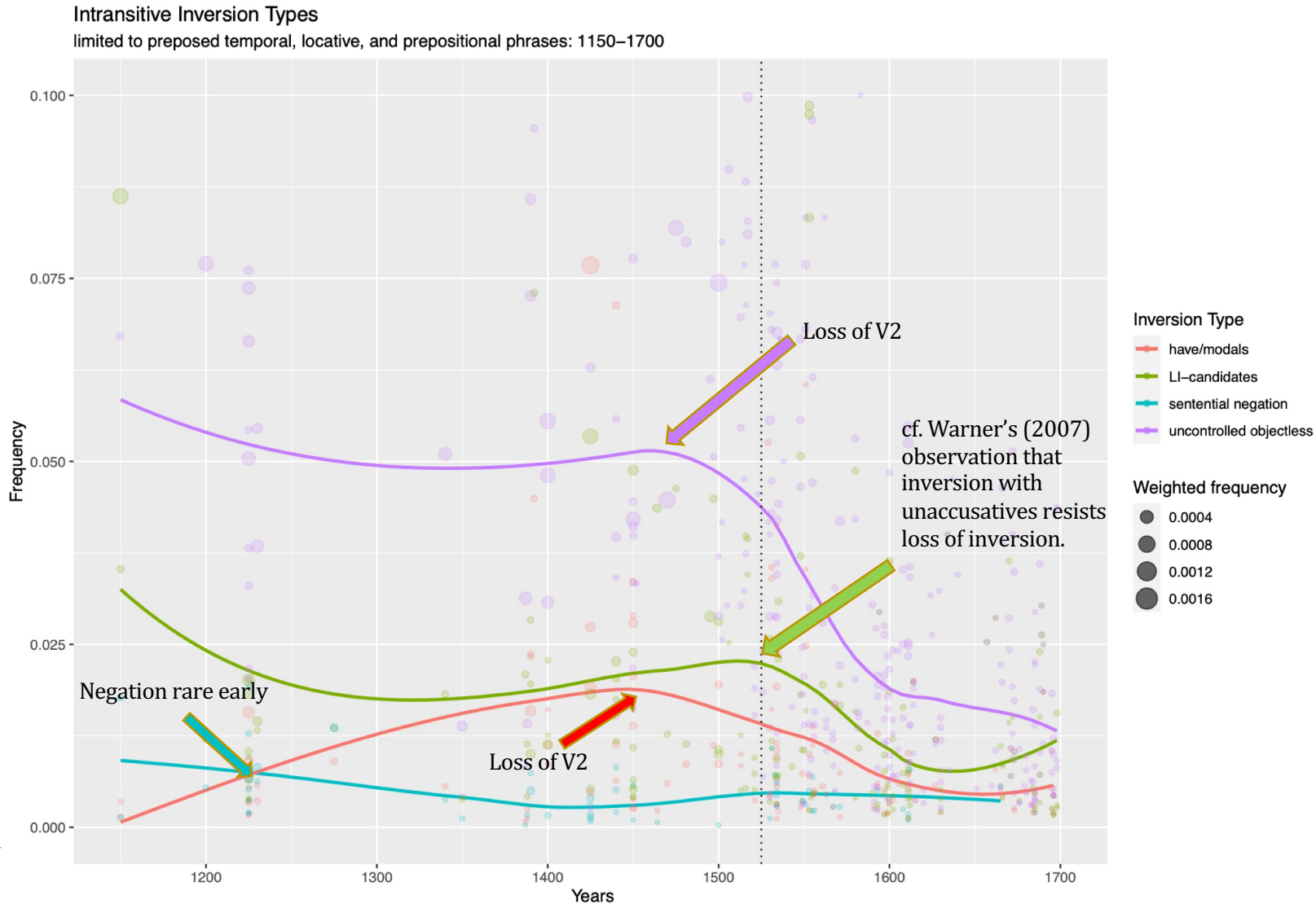
- Same story for temporal adverbs
- Same story for PPs (down then up)
- S-curve ticks up ... (doesn't keep going up later though)
- Locative adverbs are quite stable

## Explanations

- Initial drop of PPs inverting down to loss of V2
- Peculiar short rally for preposed temporal XPs
  - A resurgence of *then*-triggered inversions in EmodE
  - Possibility of preposed temporal locations as part of LI
  - Any ideas?

Data from PPCME2, PPCEME (Kroch et al. 2000, 2004)

# LI in the mix: Matrix Intransitive inversions in 1150-1700 - ME to EModE



Data from PPCME2, PPCME (Kroch et al. 2000, 2004)

- Narrowing between uncontrolled intransitive and LI-controlled samples over time (purple vs green).
- Uncontrolled samples with intransitives and *have/modals* drop off at same time with loss of V2 in 15th century
- LI-like structures **resisted** not only rise of expletive *there* in ME but also **loss of V2 for 75 years** into the EmodE period.
- LI drop off coincides with the loss of V-to-T/rise of *do*-support in 16th century.
- **15th century** (or perhaps earlier) plausible for some innovation but hiding in plain sight



## Data summary and next moves:

- Incipient LI in more or less its current constellation (XP in spec,CP) and a low subject since ME – regardless of V-position
- LI-like structures showed resistance to loss of V2 and to rise of expletive there

### What hasn't the data told us:

- An exact point for which we can say “Tada, LI has been innovated out of the ashes of V2 – yay!”
- Anything about the proposed silent expletive-like experiencer argument proposed for PDE
- When the proposed pragmatic constraints on LI developed/ if they were always present
  - This requires careful review of every single data point....
  - But sentential negation was already essentially absent
  - *have* dropped in intransitive inversion with loss of V2 , so maybe 15th century.
- If LI was innovated or always hiding in plain sight, but there is some indication for the latter.

### Question:

Where an SoP requirement on C came from: was it innovated *ex-nihilo* in ME? Was it always there? Was it somewhere else?

# Looking to OE: Spec,TP – an SoP position?

- **Spec,TP resembled a topic position in subclauses with impersonal verbs lacking external arguments** (Pintzuk 1991, 1993, 1999; Kroch & Taylor 1997; van Kemenade 1997; Fuß 2003, 2008; Trips & Fuß 2009, among others):
  - Preposed locatives, oblique experiencer subjects, promoted subjects (cf. Lightfoot 1979 *et seq*; Allen 1995; van Kemenade 1997; Kroch & Taylor 1997; O. Fischer et al. 2001; van Kemenade & Los 2006; S.Fischer 2010, among others) = **Subjects of Predication!**
  - Spec,TP not full-topic position: no embedded V2 with transitives/unergatives ( van Kemenade 1997; Walkden & Salvesen 2017) But EPP less strictly associated with overt subject movement (cf. Pintzuk 1991, 1993, 1999; Kroch & Taylor 1997; Fuß 2003, 2008; among others)

(31) a. *Gif [us] ne lyst ðæra ærrena yfela...* Dative experiencer  
if us.DAT.PL NEG pleases.3SG the earlier evils.GEN.PL (CP.445.29, van Kemenade 1997)

b. *þat [under þam ylcan mynstre] geonode mycclu neolnes,* Locative PP  
That under that.dat same minster gaped great abyss.nom  
That a great abyss gaped under that same minster.  
(cogregdC,GD\_2\_[C]:28.159.24.1906)

- Embedded preposing conditioned by discourse and argument structure; mirrored in pro-drop languages (see Cardinaletti 2004)!

## Proposal:

- T in OE hosted [ $u\delta_{SoP}$ ] valued by a locative adverbs, spatio-deictic PPs, oblique subjects when nominative external argument absent.

# Hypothesis for change: $[u\delta_{\text{SoP}}]$ migrates from T to C in during ME

- Evidence of SoP on T for OE acquirer = embedded fronted locatives and non-nominative subjects = accusative/dative experiencers, promoted dative subjects in passives, prepositional datives, impersonal passives etc .

## Stage 1 :Loss of SoP on T:

- In ME impersonal verbs and oblique subjects are lost = subjects more reliably nominative
- Evidence for SoP on T reduces to only fronted spatio-deictic adverbials/arguments, all other fronting to Spec,CP

## Stage 2 :Development of stronger subject related EPP for $[uD, u\phi]$

- $[uD, u\phi]$  always seems to have been present, but perhaps where  $[SoP]$  and  $[uD, u\phi]$ , long-distance agree with inflected  $V_{\text{FIN}}$  was less problematic (cf. Cardinaletti 2004: 151–2; Quarezemin & Cardinaletti 2017 for Romance)

Some explanations:

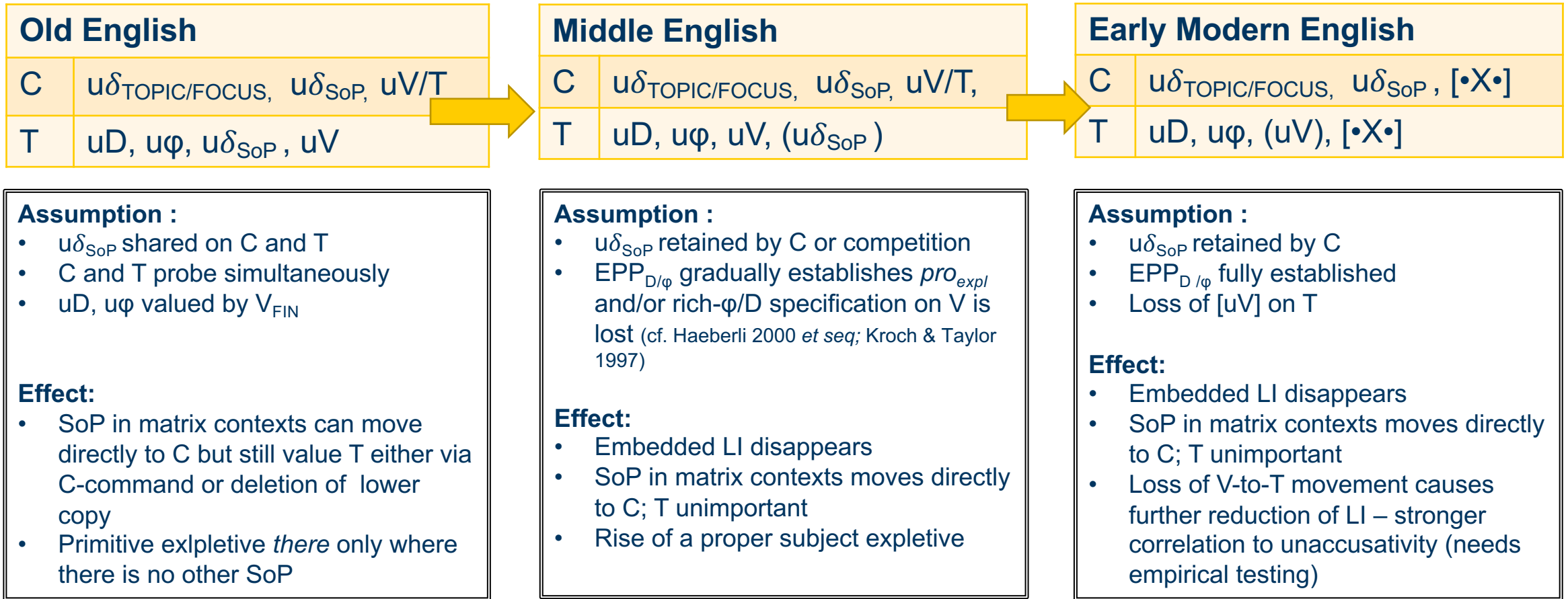
- Loss of expletive *pro* + inflectional morphology (Hulk & van Kemenade 1995:249 ;Haeberli 2000,2002a,b) and coinciding rise of presentational subject expletive *there* (13th-15th centuries)
- Alternatives: loss of V-valuation of  $[uD, u\phi]$  via  $V_{\text{FIN}}$  (Kroch & Taylor 1997) /loss of long-distance agree / loss of feature-movement (Fuß 2003), loss of vP-to-Spec,TP movement (Biberauer & Roberts 2005)

## Result:

- ✓ Loss of evidence of independent  $[u\delta_{\text{SoP}}]$  on T → reanalysed exclusively as a feature on C;
- ✓ Only the highest DP can value EPP

**Question:** But whence the expletive-like experiencer *pro* in PDE, which I have argued is crucial for LI?

# A potential formal scenario



\* OE likely involved a double/expanded CP structure (Fischer et al. 2001; Walkden 2014,2015, 2017); perhaps necessary to model V3 orders.

# *þæ̅r* , expletive *pro* ( $pro_{expl}$ ) and experiencer *pro* ( $pro_{EXP}$ ): surpluss or specialisation

- The traditional explanation for EPP-satisfaction in OE and ME clauses lacking *þæ̅r* or nominative subject or with a late subject is expletive *pro* in Spec,TP (cf. van Kemenade 1997, Hulk & van Kemenade 1995, Allen 1995, Fischer et al; 2001, Haeberli 2002a,b).
- During the ME period, there is a transition to a PDE-like expletive use of *þæ̅r/there* (Breivik 1991, Ingham 2001) – modern *there* is vP expletive (cf. Richards & Biberauer 2005, Deal 2009, Alexiadou & Schäfer 2011)

## In ME we see a well-known period of competition between $pro_{expl}$ and *þæ̅r/there*.

- Key idea by Kroch (1994): in Grammar Competition, one variant will win out while the other disappears or specialises to survive
- If  $pro_{expl}$  existed perhaps it specialised/was reanalysed as the proposed experiencer argument (perceiver)  $pro_{EXP}$ .
- No evidence  $pro_{expl}$  was evidential, yet LI contexts strongly linked to perception events (very often in narratives)
- *There* with motion unaccusatives (but not with copula *be*) also appears tied to this reading (cf. Hole & Fraser 2019).

## Why does $pro_{EXP}$ emerge with locatives?

- Locatives seem able to license implicit arguments (Brody 2013, Sluckin & Kastner in prep)
- LI also associated with locative selecting unaccusatives in stage-level predications; the latter is also associated with a stage-level event argument (Kratzer 1995, Hinterhölzl 2019).
- Perhaps the combination of stage-level predication and locatives was a perfect recipe; in short... I'm not sure but these are the lines we should pursue.

# Summary and next steps

## Summary

- [uδ<sub>SoP</sub>] present since OE but readjustment in ME was needed to get to PDE LI
- A little bit of continuity and little bit of innovation
- *pro*<sub>EXP</sub> was probably an innovation; more work needed on the exact mechanics
- It is highly unlikely that expletive *pro* would have survived wholly in the environment of LI (contra Postal 2004, Bruening 2010)

## Next steps

- Check LI-like behaviour in OE much more thoroughly
- Apply lemmatizer to corpora to check diachronic behaviour of semantic verb classes more accurately
- Append tags for definiteness to check development of *there* – locative *there* should not give rise to DR

**Thank you for listening  
Questions?**

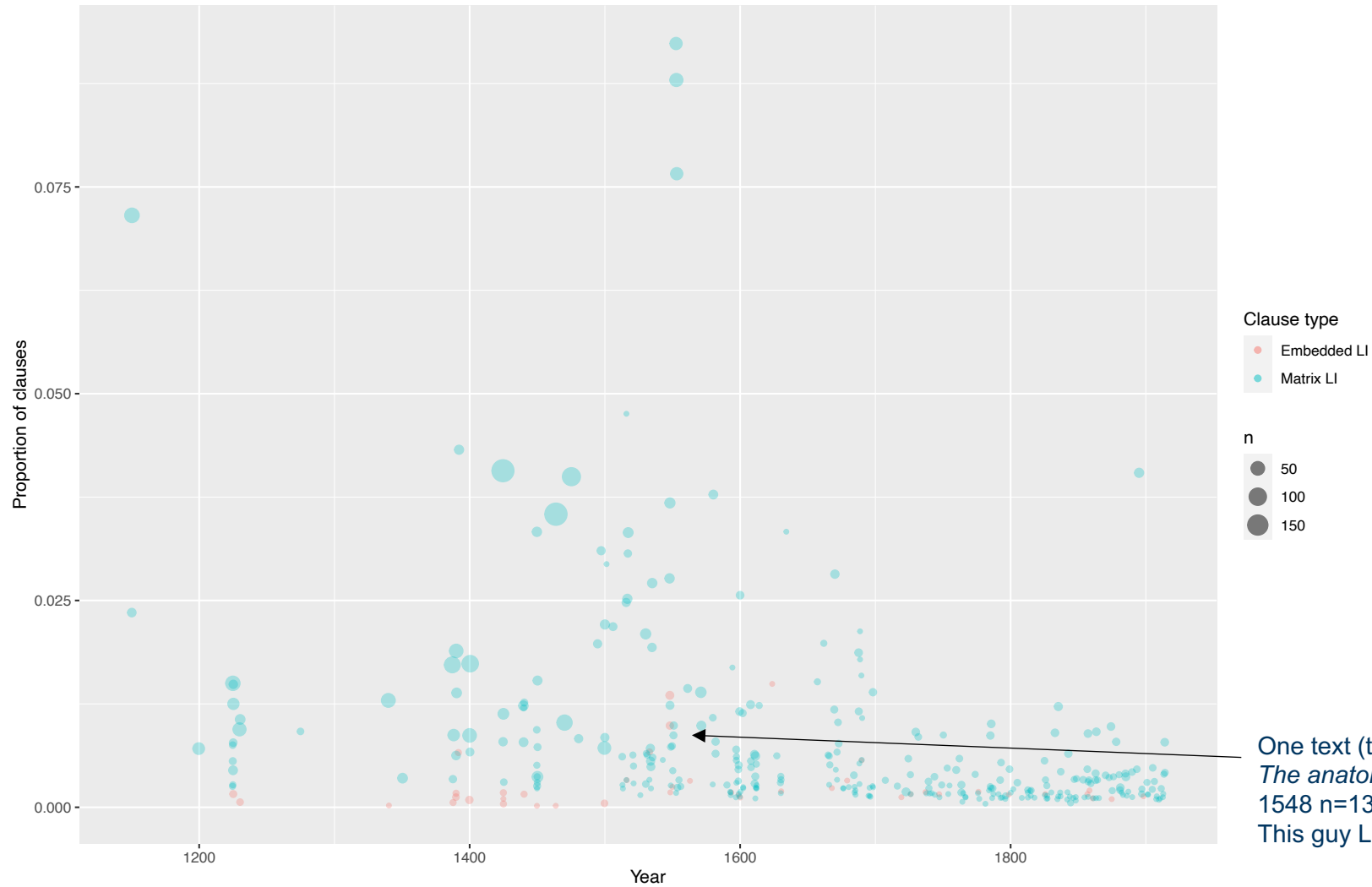
Extra materials

**More data, questions, ideas**



# Embedded LI-like inversion was always very rare (unweighted)

Scatter plot of matrix and embedded LI as % of all clauses  
from Middle English to Modern British English: 1150–1915



One text (three psd files) causes this blip:  
*The anatomie of the bodie of man* by Thomas Vicary,  
1548 n=13 sub, n= 40 mat  
This guy LOVES inversion!

# Middle English LI-like structures

- Williams (1999): *there*-less existential inversions decrease during ME but so-called Existential Locative Inversions don't! by Late ME (1420-1500) 72% (n=23) of *there*-less inversions; I find many more using all of PPCME2!

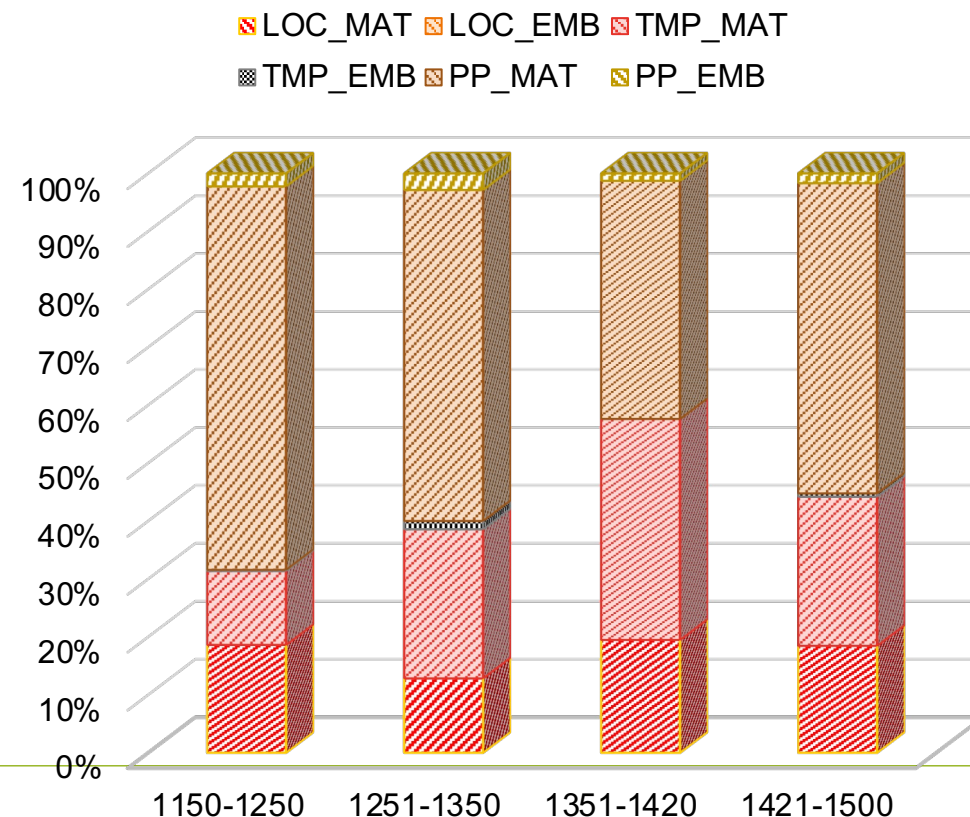
	XP <sub>LOC</sub> mat	XP <sub>LOC</sub> sub	XP <sub>TMP</sub> mat	XP <sub>TMP</sub> sub	PP mat	PP sub	Total hits	clauses searched
1150-1250	92	0	63	1	327	11	494	31897 (mat_22602/sub_9295)
1251-1350	9	0	18	1	40	2	70	7601 (mat_6300/sub_1301)
1351-1420	46	0	90	0	97	3	236	18270 (mat_12919/sub_5351)
1421-1500	132	0	184	4	383	12	715	51004 (mat_37474/sub_13530)
total	279	0	355	6	847	28	1515	108772 (mat_79295/sub_29477)

Data from a search of LI-candidate structures: excluding very heavy subjects, negation, pronouns, quotative-esque inversions, transitives, and expletives; Caution: *then*, *þa* 'then', *þonne* 'then' and *nu* 'now' included as temporal adverbs like *then* participate in PDE LI.

## Results:

- Many just V2, but lack of expletive is remarkable considering their loss in other existential inversion constructions (cf. Williams 1999)
- Embedded inversions rare: no locative adverbs, most often a PP.
- Many embedded inversions involve *be*, prepositional datives, or embedded matrix clauses.

DISTRIBUTION OF PREVERBAL XPS IN LI-LIKE STRUCTURES IN MIDDLE ENGLISH



# Expletive *there* in history of English

- Light (2015) argues that *þær* was a TP expletive in OE; but it wasn't like present day presentational *there* or a dummy topic .... but also not obligatory.
- Might there have been a development from TP to vP expletive?
  - Is such a difference desirable?
  - Perhaps TP expletives do not rule out TEC but vP do.
  - TP expletives should work with CoS unaccusatives, e.g. break/sink

# Approches to English V2 on the market

Several analyses exist for the OE and ME V2 property and subject positions; pronouns are generally preverbal and compatible with V3

## The always V-to-C approach + EPP requirement in Spec,TP (van Kemenade 1987 et seq; Tomaselli 1995)

$[_{CP} XP_{TOPIC/SUBJ-DP/+OP} (\text{pronoun-cl } +)C^0 V_{FIN} [_{TP}$  OE (and northern ME without proclitics cf. Kroch & Taylor 1997 )

## The CP recursion/ split-CP approach (Walkden 2013, 2014, 2017)

$[_{CP} XP_{ABOUTNESS/FOCUS/SHIFT} [_{CP} \text{pronoun}/DP_{SUBJ-FAMILIAR TOPIC} C^0 + V_{FIN} [_{TP} \dots$  OE

## The V-to- FP/AgrP except / V-to-C with operators (Fischer et al. 2001; Haeberli 2002):

$[_{CP} XP_{TOPIC/+OP} V_{FIN} [_{AgrP/FP} \text{pronoun}_{SUBJ}/pro_{Agr/F} V_{fin} [_{TP} DP_{SUBJ} \dots$  OE/ME<sub>southern</sub>

## The V-to-T approaches except with operators (Pintzuk 1991, 1999, Kroch & Taylor 1997 )

$[_{CP} XP_{TOPIC/+OP} (\text{pronoun-cl } +)C^0 (V_{FIN}) [_{TP} \emptyset /_{TOPIC} V_{FIN}$  OE + Southern ME. (no subject position in TP)

OR

$[_{CP} XP_{TOPIC/+OP} (V_{FIN}) [_{TP} \text{pronoun}_{SUBJ} V_{FIN} [_{VP} DP_{SUBJ}$  OE (subject position in TP)

$[_{CP} XP_{TOPIC/+OP} (V_{FIN}) [_{TP} \text{pronoun}/DP_{SUBJ} V_{FIN}$  ME Fuß (2003, 2008)

Concesus = Spec,CP was a position for V2 operators (*þa* 'then', *þonne* 'then' and *nu* 'now', *wh*-elements, negation ) and a position for non-subject topics – aspects of this behaviour remain up to the present day, e.g. residual V2 structures with a trigger in Spec,CP, or typical X-S-V orders involving topicalisation.

# Deriving the late Subject in English LI: always unaccusativity

- Unergatives with directed motion BUT NOT located motion/existential readings considered coercible as unaccusatives (Hoekstra & Mulder 1990; Levin & Rappaport Hovav 1995)

- (32)      a. *Into the cave swam the fish.*                      directed motion    unacc.  
            b. *Inside the bowl swam/were swimming the fish.*    existential            unerg.?

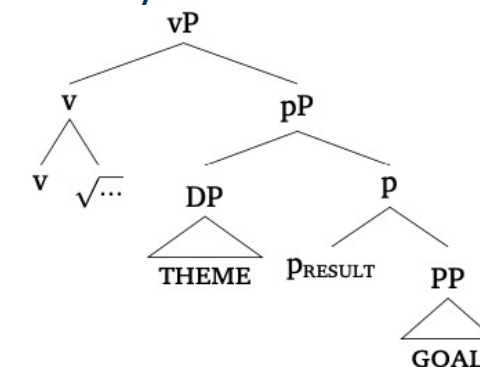
**Problem:** Unergative LI needs V-to-T movement (lacking in Eng. for 300 years) and/or right branching/dislocation of the late subject (Levin & Rappaport Hovav 1995; Haeberli 2002) (doesn't fit the Focus profile).

**Proposal:** English unergatives in LI coerced as resultatives or existence unaccusatives with pP small-clause structure (Svenonius 2003, 2007; Wood 2015; Wood and Marantz 2017)

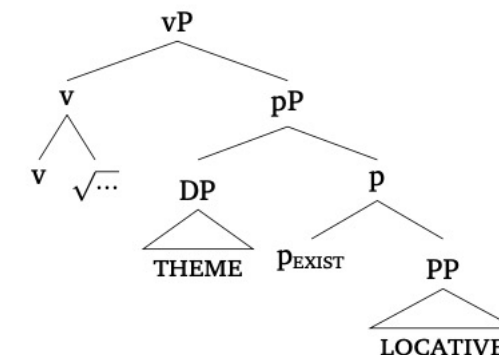
## Evidence:

- Restitutive readings with *again* + indefinite subjects = low scope over subject in Small Clause (von Stechow 1995, 1996; Dobler 2008a,b; Alexiadou & Schäfer 2011)
- Degraded instrumentals and agent-oriented / manner adverbs in inversion
- Degraded control into purpose clauses

## Resultative/directed motion



## Exist (in a location)



# Deriving definiteness restrictions in English

- (33) a. Into the room came Susan, the woman, a woman.  
 b. Into the room there came ??Susan, \*the woman, a woman  
 c. There came ??Susan, \*the woman, a woman into the room

- The presence of *there* will always trap either the locative or  $pro_{EXP}$  in the Small Clause structure under *v*.
- Hence *there* are always leads to multiple occupation which is associated with definiteness

