

# The rise of English periphrastic *do*

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The rise of periphrastic *do* in English was studied quantitatively from an extensive sample of more than 10,000 tokens of the relevant linguistic forms by A. Ellegård more than 40 years ago (Ellegård 1953) with a modern understanding of linguistic variation. His results were extensively reanalyzed in Kroch 1989.

## 1. The origins of periphrastic *do*.

- (1) a. þeyr moder dide hem to-gedere kysse (French original: E a baiser les comanda.)  
b. In-to þat water þey dide hem fle
- (2) In token þat he had myght, a kastle he did reyse (Chastel fet lever en noun de sygnurys)

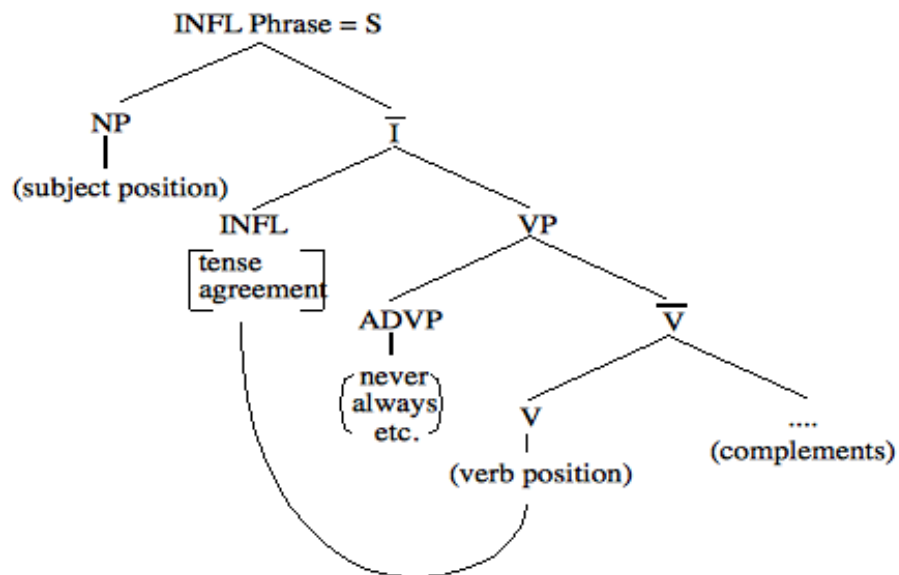
Robert Manning, 14<sup>th</sup> century Eastern texts

- (3) a. ich makede tenden ierusalem  
b. þai gert seke him in þat sesoune  
c. strong castel he let sette
- (4) a. Alexander hase done many batailles  
b. þou must do þis cure:  
c. þanne dostou a god dede.
- (5) a. Men..sæden þat micel þing sculde cumen her efter, sua dide.  
b. þæt þe leofæ Hælend mihte his sune hælen swa swa he Lazarum dyde.
- (6) His yonge son that three yeer was of age  
Un-to him seyde, fader, why do ye wepe?  
Whan wol the gayler bringen our potage  
Is ther no morsel breed that ye do kepe? (Chaucer, *Monk's Tale*, ll. 441-444)

## 2. The grammar of *do*.

- (7) a. How great and greuou tribulations suffered the Holy Appostyls...? (302:166:10)  
b. and in thy name have we not cast oute devyls...? (310:31:45 )
- (8) a. ...spoile him of his riches by sondrie fraudes, whiche he perceiueh not. (346:86:23)

- b. Go, say to hym we wyll not grefe [grieve]. (218:8:292)
- (9) a. Where doth the grene knyght holde hym? (304:97:15 )  
 b. ...bycause the nobylyte ther commynly dothe not exercyse them in the studys therof. (318:194:567)
- (10) a. They worschipped the sonne whanne he dede arise. (78:327:8)  
 b. When he dyd se[e] that Crist schold be dede.... (167:188:2)  
 c. Me thinke I doe heare a good manerly Begger at the doore...(346:5:17)
- (11) a. John says he doesn't like pizza but he does like it.  
 b. You haven't been here in a long time so when you do come, be sure not to lose your way.
- (12) a. Les hommes sont toujours partis avant midi.  
 The men are always left before noon  
  
 b. Les hommes (ne) sont pas partis.  
 The men neg1 are neg2 left  
  
 c. Les hommes sont tous partis.  
 The men are all left
- (13) a. Les hommes partent toujours avant midi.  
 b. Les hommes ne partent pas.  
 c. Les hommes partent tous.
- (14)



- (15) a. Jesu Crist wolde nevere have descended to be born.... (Chaucer, Melibee)  
 b. oure clerkis schullen not fynde but povert.... (Wycliffe)
- (16) a. ... he ne fond never womman good... (Chaucer, Melibee)  
 b. the kynges of Engelond woneth alwey fer fram that contray (78:Lib I:Cap LIX)  
 c. vengeaunce taking aperteneth nat unto everichoon (Chaucer, Melibee)
- (17) a. John has always liked bananas.  
 b. John isn't eating today.  
 c. The men will all leave together.
- (18) a. John always eats after 8 o'clock.  
 b. John doesn't know much about cars.  
 c. The men all complained about the wages.
- (19) Thynkest thou to avoyde that neuer mortall creature might escape? (302:192:43)
- (20) ...dyde he begyle us that sayd they were spoken of the[e]? (302 219-33)
- (21) Who came/\*did come to dinner last night?
- (22) a. ...whereby máy grow, & dóth growe, in diuerse parties, greate mischef.  
 (244:13:13)  
 b. God háthe and dóthe shewe for hem gret miracles. (274:8:6)
- (23) a. John hás gone to school.  
 b. John wíll go to school.
- (24) a. They will not be aware of the danger.  
 b. They are not aware of the danger.  
 c. Are they aware of the danger?  
 d. \*They did not be aware of the danger.
- (25) a. She must not have much money.  
 b. She hasn't much money. [British]  
 c. Have you much money? [British]  
 d. Does she have much money? [Not attested in early Modern English]

The rise of *do* is a reflex of a more abstract grammatical change: the loss of verb raising to INFL, a process that Middle English had but that in modern English came to be restricted to auxiliary verbs (Roberts 1985). In corpus statistics we find competition between a grammar that includes V-to-I raising for main verbs and one that does not.

### 3. The time course of the change.

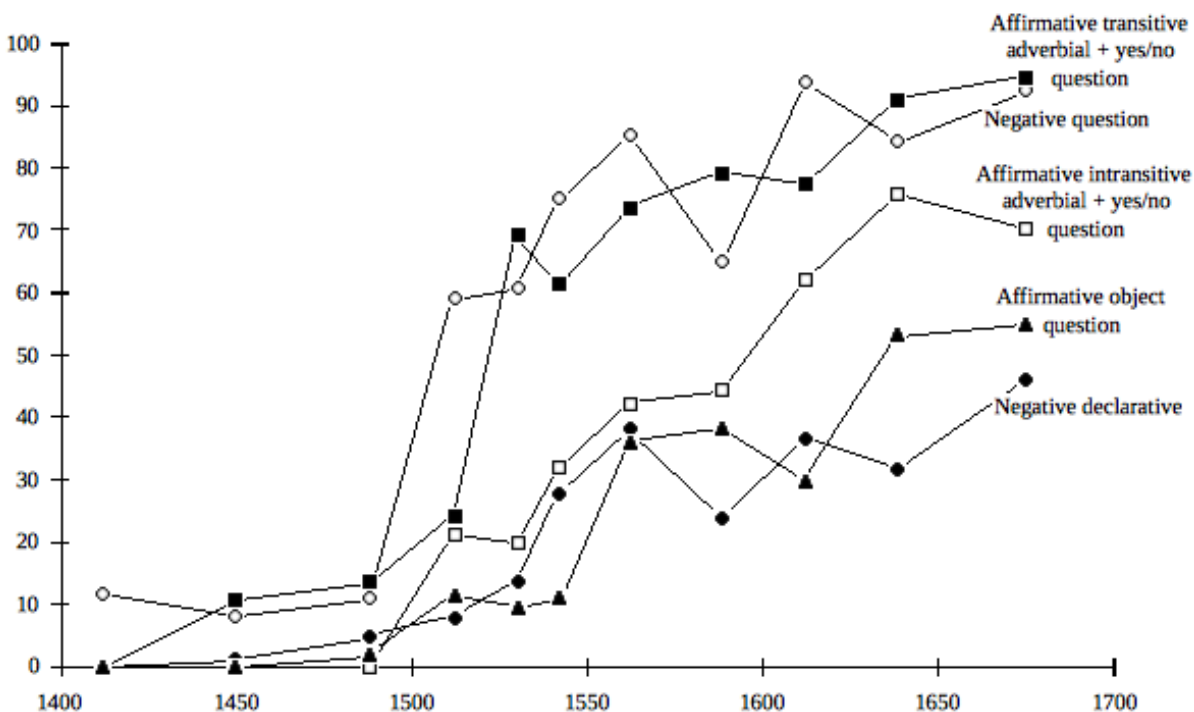


Figure 1: The rise of periphrastic *do* (adapted from Ellegård 1953).

Negative declarative		Negative question		Aff. trans. adv+yes/no question		Aff. intrans. adv+yes/no question		Affirmative <i>wh-</i> object question	
slope	intercept	slope	intercept	slope	intercept	slope	intercept	slope	intercept
3.74	-8.33	3.45	-5.57	3.62	-6.58	3.77	-8.08	4.01	-9.26

Table 1: Slope and intercept parameters of logistic regressions on data in Table 1 (slope is measured in logit units per century).

### 4. Change in ambiguous environments.

The results presented so far all involve environments where the presence of competition is unambiguously recoverable from differences in the surface forms produced by the competing analyses. In instances, however, surface forms are ambiguous, that is compatible with different structures. Obviously, such ambiguous cases cannot, in the absence of further information, be used in quantitative studies. Interestingly, however, such further information often seems to be

available, in the form of two generally valid principles of statistical patterning in diachrony: First, grammatically unrelated alternations exhibit statistical independence in their usage frequencies; and, second, the frequency of use of grammar-internal alternative syntactic options (e.g., extraposition processes) tends to be diachronically stable.

#### 4.1. English V-to-I raising and “affix hopping.”

Period	Date	<i>do never</i> V	<i>never</i> V	V <i>never</i>
Period 3	1425-1475	3	52	99
Period 4	1475-1500	4	80	102
Period 5	1500-1525	1	80	28
Period 6	1525-1535	3	151	16
Period 7	1535-1550	14	125	13
Period 8	1550-1575	9	71	8
Period 9	1575-1600	6	152	5

Table 2: The position of *never* with respect to the main verb (Ellegård 1953:184).

(26) For many are that never kane halde the ordyre of lufe... (Richard Rolle of Hampole)

Source	<i>never</i> - INFL	INFL - <i>never</i>	% pre-INFL <i>never</i>
Chaucer	5	29	14.7
Five Poems	21	101	17.2

Table 3: Frequency of pre-INFL *never* not reflecting affix hopping. Data from Tatlock and Kennedy 1927; Kottler and Markman 1966.

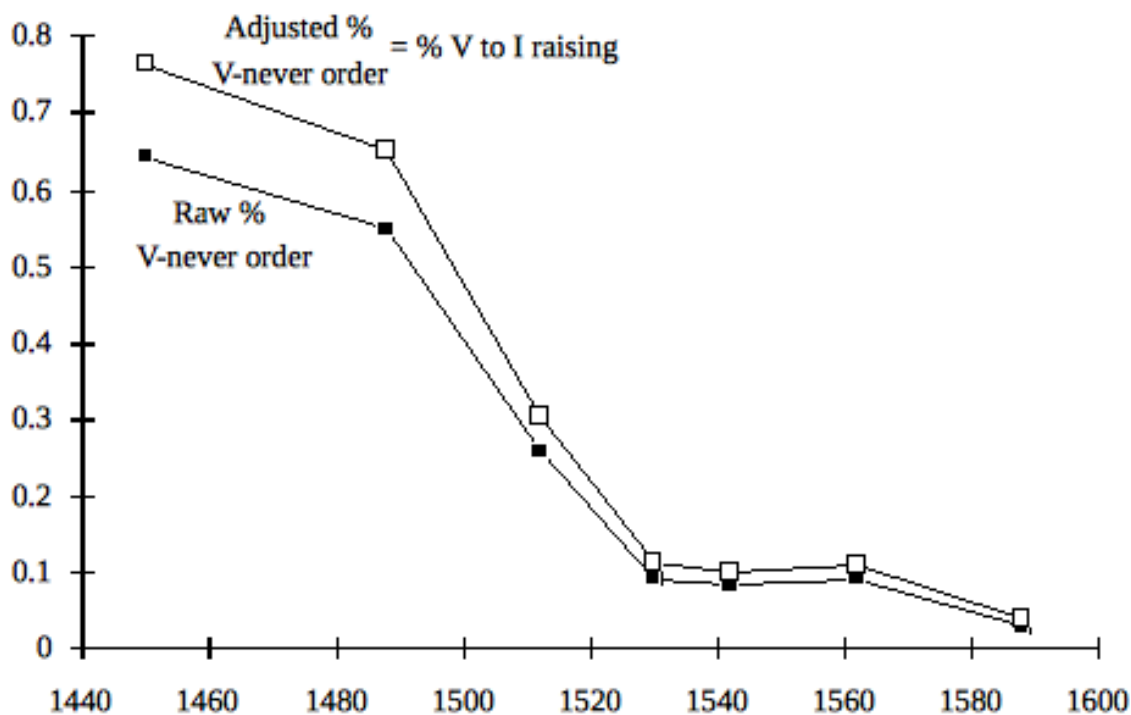


Figure 2: The decline of V to I raising in sentences with *never* .

% pre-INFL <i>never</i> =5.0		% pre-INFL <i>never</i> =10.0		% pre-INFL <i>never</i> =16.0		% pre-INFL <i>never</i> =20.0		% pre-INFL <i>never</i> =25.0	
slope	intercept	slope	intercept	slope	intercept	slope	intercept	slope	intercept
-3.38	4.43	-3.53	4.76	-3.76	5.37	-3.97	5.78	-4.32	6.45

Table 4: Slope and intercept parameters of logistic regressions on data in Table 3 for five values of percentage pre-INFL *never* .



Figure 3: Percent *do* in unemphatic affirmative declarative sentences

Probability of <i>do</i> =.05		Probability of <i>do</i> =.10		Probability of <i>do</i> =.15		Probability of <i>do</i> =.20		Probability of <i>do</i> =1.00	
slope	intercept	slope	intercept	slope	intercept	slope	intercept	slope	intercept
4.84	-7.59	3.79	-7.14	3.39	-7.16	3.21	-7.21	2.82	-8.32

Table 5: Slope and intercept parameters of logistic regressions on data in Figure 8 for five values of the conditional probability of *do*, given that V to I raising has not applied.

## 5. References.

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