On the origin of auxiliary *do*

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Prevailing theories link the English periphrastic auxiliary verb *do* historically with Old and Middle English causative *do*. I argue that these and other accounts are inconsistent with modern dialect evidence and an analysis of the historical record suggested by that evidence. The primary source of periphrastic *do* was a habitual aspect marker which itself arose from the reinterpretation of bare object nominalizations as infinitive verbs.[1]

1 Introduction

The history of auxiliary *do* is often divided into three periods: the ME period of its origin; an ENE period of what Ellegård (1953) calls its REGULATION; and the modern period. The modern system is characterized by a process whereby nonauxiliary verbs must be 'supported' by *do* in certain familiar contexts. One such context is sentential negation, as in (1a). As shown in (1b–c), *wh*-questions and preposed sentential negation require subject–auxiliary inversion and *do*-support.

(1) (a) 1868 Duncan, *Insect World* Intr. 9 (*OED*)
       In the perfect insect the abdomen does not carry either the wings or the legs.
   (b) 1829 Carlyle, *Misc.* (1857) II. 53 (*OED*)
       What Steam-engine ... did these Encyclopedists invent for mankind?
   (c) 1877 Gladstone, *Diary* 7 May in Morley *Life* II. vii. iv. 565 (*OED*)
       Never did I feel weaker and more wormlike.

I will assume that auxiliaries are base-generated in I^0 and select VP complements.

(E)ME = (Early) Middle English	ART = article	PRES = present
(E)NE = (Early) Modern English	ASP = aspect marker	PRET = preterite
OE = Old English	COLL = collective	PRO = pronoun
(P/W)Gmc = (Proto-/West) Germanic	DAT = dative	PROG = progressive
(P)IE = (Proto-)Indo-European	HAB = habitual	PTCL = particle
DOE = Cameron et al. 1986–	IND = indicative	REDUP = reduplication
MED = Kurath et al. 1954	INF = infinitive	VN = verbal noun
OED = Murray et al. 1989	NOM = nominative	

Other verbs are base-generated within VP, and periphrastic *do* or another auxiliary is required if the inflected verb must surface in I^0 or C^0. The sentences in (1a) and (1c) may be partly represented as in (2).

(2) (a) [$_{IP}$ The abdomen does not [$_{VP}$ carry either the wings or legs]]
    (b) [$_{CP}$ Never did$_1$ [$_{IP}$ I ___$_1$ [$_{VP}$ feel weaker and more wormlike]]]

In inversion contexts, as seen in (2b), elements in the CP specifier position trigger what looks like verb movement around the subject. Inversion is an important archaism within Gmc (Kiparsky, 1995; Eythórsson, 1996), though it is not the residue of any more general process positioning verbs in C^0.

The neat distribution of *do*-support is fairly recent. Before the nineteenth century – during the period of regulation – periphrastic *do* was acceptable in some contexts where it is now impossible in most dialects, and it was often omitted in some contexts where it is now obligatory. Its distribution in older stages of the language has never been fully understood. Jespersen (1940: 505) refers to an 'exuberant use of *do*' which 'often seems to be a mere padding to fill up the line and bring about the desired rhythm and especially to make it possible to place the infinitive at the end of the line as a convenient rime-word'. Though the details are disputed, many studies have shown that the modern system was evolving during this period.[2] Here I will systematically treat only the origin of auxiliary *do*, though in section 5 I will make some suggestions about its regulation.

The periphrastic *do* + infinitive construction is first attested in ME, and it remains relatively uncommon in texts of this period. In early sources the construction is much more common in affirmative statements, as in (3), than in the contexts where *do*-support is now found.

(3) c1325 (a1250) *Harrow.H.* (Hrl) 171–2
    We þin heste dude forleten, þo we þen appel eten
    'We forsook your command when we ate the apple'

Periphrastic *do* is generally assumed to have arisen in western EME dialects; the earliest clear examples appear in two southwestern manuscripts now standardly dated to c. 1300. In these and other sources dated to the thirteenth century by Ellegård (1953: 44), he counted 57 unambiguous West Midland and southwestern examples but no East Midland examples; from these dialect areas fourteenth-century totals were 34 and 15 respectively. Only in the fifteenth century, for which the comparable totals are 67 and 255, is periphrastic *do* well established in all non-northern dialects.

The remainder of this paper contains five parts. In section 2, I review several accounts of the origin of periphrastic *do*. In section 3, based on ME textual data and reconstruction from modern dialects, I argue that auxiliary *do* marked habitual

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[2] In the past fifteen years see Curry (1992), Hudson (1997), Kroch (1989, 1990, 1997), Nevalainen (1991), Rissanen (1985), Roberts (1993), Stein (1990, 1991, 1992), Tieken (1987a, 1987b, 1988, 1990, 1997), and S. Wright (1989a, 1989b, 1994); the classic study is by Ellegård (1953).

aspect during the period of its earliest attestation. In section 4, I propose a historical source for this habitual use of *do* and discuss some crosslinguistic parallels. I consider the relation between habitual and periphrastic *do* in section 5 and give a brief summary in section 6.

2   Previous analyses

After an overview of contact accounts in section 2.1, in sections 2.2–4 I will consider possible connections between the *do* periphrasis and two other uses of *do*, in causative and V(P) ellipsis contexts. Main-verb uses of *do* will be considered in section 4.[3]

2.1   Language contact

Several accounts of the origin of periphrastic *do* crucially invoke language contact in one way or another. Any such account must make sense in light of what is now known about the typology of language contact. As Thomason & Kaufman (1988) show, contact explanations of grammatical features are most convincing where it is plausible that a suitable sociolinguistic context existed, and where there are comparable contact-induced changes in several grammatical subsystems. This explanatory burden is not met by accounts of periphrastic *do*.

One type of contact explanation invokes Celtic substratum influence (Preusler, 1938, 1939). A point in favor of this view is that all three British Celtic languages have a construction formed with 'do' and a verbal noun. This is illustrated in (4) for Middle Welsh (Simon Evans, 1964: 160), where according to Fife (1986) it is associated with focus marking.

(4) Mynet   a   oruc   Padric   y   Iwerdon
    go (VN) PTCL   do (PRET.3SG) Patrick to   Ireland
    'Patrick went to Ireland'

On the simplest version of the substratum hypothesis, the *do* periphrasis was created by native speakers of Welsh or Cornish in twelfth- or thirteenth-century western England, in the course of normal language shift as treated by Thomason & Kaufman (1988: 110–46) – in their framework perhaps specifically 'language shift with moderate interference'. Yet in Ellegård's words, 'it is not enough to show that the expression exists in both languages, and is found earlier in one than in the other ... Celtic influence is generally believed to have been fairly insignificant in English' (1953: 119); cf. section 3.3 below. Without other evidence of linguistic interference in the auxiliary or other grammatical subsystems, there is no reason to believe that

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[3] I ignore, as irrelevant, what has been called ANTICIPATIVE *do* (Denison, 1993: 260–4, 276–7). The literature on the origin of periphrastic *do* is surveyed by Ellegård (1953: 13–148), Mustanoja (1960: 600–10), Visser (1963–73: 1488–1571), O. Fischer (1992: 267–76) and Denison (1993: 255–91).

twelfth- or thirteenth-century shift from British to English led to substantial contact-induced change.

A second type of contact explanation involves unattested registers of OE. Tieken (1990) and Rissanen (1991) suggest that periphrastic *do* 'developed in children's language and in the language of second-language learners' and 'remained long in the domain of the spoken medium because it was stigmatised' (Rissanen 1991: 335). It entered the literary language when 'the new requirements of rhymed verse ... made poets ... overcome the stigma' (Tieken, 1990: 26). It is true that the OE and ME corpora reflect literary registers and that other registers and dialects must have existed. But they have left no clear remains, and no evidence links them with *do* (Ellegård, 1953: 21–3); a plausible explanation not invoking unattested entities is surely preferable.

A third type of contact explanation combines features of the first two types of explanation. According to Poussa (1990: 407, 414), periphrastic *do* entered the 'written mode' only in ME after having been a feature of a spoken variety resulting from 'Germanic-Celtic contacts in the early OE period'. She calls this a 'creolization-decreolization model' (p. 407), but there is no evidence that British Celtic speakers had the restricted lexifier access characteristic of abrupt creolization, nor does Poussa identify any of the many other changes that might be expected if they had; cf. Thomason & Kaufman (1988: 263–342) and C. Allen (1997). Poussa explains *do* by saying that 'a dummy auxiliary can enter a language as a performance feature in the speech of adult bilinguals who habitually mix and switch language codes', because in language contact 'societal restraints on the learner's linguistic behavior are relaxed or removed ... Such situations would be likely to lead to the proliferation of dummy verbs like DO, which would subsequently be available for new functions, whether grammatical, semantic, or stylistic' (pp. 411, 414). Among these functions is one to be discussed in section 3, habitual aspect marking as attested in some English dialects. Poussa assumes this to have been an early innovation and suggests that the 'next stage of decreolization ... would be to the loss of the habitual meaning of DO, which ... would then give us a dummy verb, redundant or periphrastic DO' (pp. 424–5). In short, contact produced a dummy auxiliary *do* which then acquired habitual meaning and still later became a dummy verb again. Yet because the putative linguistic contact variety with auxiliary *do* is not actually attested from the OE period, Poussa's model shares the disadvantages of the dialect borrowing and substratum accounts. The dummy > habitual change is also quite unmotivated: mere 'availability' cannot explain a specific functional innovation.

In sum, since existing contact accounts of periphrastic *do* posit sociolinguistic contexts or even source languages for which there is no evidence, they must be viewed as hypotheses of desperation. I turn now to accounts tracing the periphrasis to other, attested uses of *do*.

2.2   *Causative > periphrastic* do

A causative use of *do*, illustrated in (5), is attested occasionally in OE and frequently in ME.

(5) (a) OE: *ÆCHom II, 18* 170.35–7
Ic dyde eow witan ... þæt ðas deofolgild eow sind derigendlice
'I let you know that these idols are destructive to you'
(b) ?a1160 *PeterbChron* (Ld) an. 1132
Te king sende efter him & dide him gyuen up ðat abbotrice of Burch
'The king sent after him and made him give up that abbacy of Peterborough'

ME causative *do* is primarily an East Midland feature, while *make* is the typical West Midland and southwestern causative verb (Ellegård, 1953: 44). The complement has an overt subject in (5), but, as in (6), it also permits transitive complements whose subjects are omitted.

(6) a1225 (c1200) *Vices & Virtues 1* (Stw) 63/18–23
He ... halt him selven for ierðe ... Þis doþ reuhðe don, ðe is iwis godes ʒiue
'He ... esteems himself as earth ... Ruth (pity) causes [him] to do this, which is
assuredly God's gift'   (Holthausen, 1888: 62)

Whether such sentences are somehow passive or have null subject complements, what is crucial is that no overt argument is assigned the subcategorized subject thematic role.

According to Ellegård (1953) and earlier writers, the periphrastic use of *do* arose from contexts where causative *do* occurred with verbs whose subjects can be interpreted as either direct or indirect Agents. For instance, *he built a hall* can mean that he was responsible for building a hall or that he himself actually did the building. An ambiguity arises if such a verb occurs with a causative element, since this is redundant on the indirect-agency interpretation. The 'periphrastic' interpretation in (7b) becomes possible for this element.

(7)   ?a1400 (a1338) Mannyng *ChronPt2* (Petyt) 88/17
Whan he was at London, a haule he did vp wright
(a) Causative: 'When he was in London, he had a hall built'
(b) Periphrastic (+ indirect agency): 'When he was in London, he built a hall'

Sentences like (7), which are not rare in texts (Ellegård, 1953: 44), were thus ambiguous. In some such cases causative *do* was reinterpreted as noncausative; the burden of causation shifted to the lexical verb. This is shown schematically in (8), in terms which are of course not Ellegård's.

(8) (a) SOURCE: $[_{IP} NP_{AGENT}$ do $[_{IP}$ pro V NP ...]]
(b) REINTERPRETED AS: $[_{IP} NP_{AGENT}$ do $[_{VP}$ V NP ...]]

Once some sentences like (7) were reanalyzed as shown in (8), unambiguous periphrases as in (3) and (9) could also be created even though causative *do* continued to exist.

(9) (a) ?a1400 (a1338) Mannyng *Chron. Pt. (1)* (Petyt) 2544
      Hir self for sorow dide scho slo
      'In sorrow she slew herself'
   (b) (a1387) Trevisa *Higd.* (StJ–C) iv 327–28
      þey worschipped þe sonne whanne he dede arise
      'They worshipped the sun when it arose'

This account has two major problems. First, the *do* periphrasis originated in the western dialects where causative *do* was least common in ME and OE.[4] As Ellegård (1953: 55) asks, if periphrastic *do* 'is not a development of an earlier widespread use of causative *do* in these dialects, how is the construction to be explained?' Second and more fundamentally, what motivated the creation of periphrastic *do* if it was originally 'optional' and had no independent semantic value? Where does such a change fall in a typology of syntactic changes? Ellegård (1953: 146) proposes a solution for both problems: 'The periphrasis in poetry was felt as a peculiarity of the poetic diction, belonging to the paraphernalia of the verse-maker's craft, acceptable in dialects where purely causative *do* had a relatively weak position.' This view is very unattractive. For one thing, the early appearance of periphrastic *do* in verse may well be a mirage effect of the rarity of prose texts in the crucial period. Moreover, Ellegård's analysis is ultimately nonlinguistic, invoking as it does the metrical needs and creative abilities of poets. As Denison (1985: 48–9) rightly observes, it would be nice to have a linguistic explanation for such a central feature of the English verb.

2.3 Perfective > periphrastic do

Denison's own account addresses this last problem of motivation while still connecting causatives and *do*-support. Its starting point is a hypothetical OE stage when causative *do* did not permit null subject complement clauses of the type in (6) and (8a). In Denison's view, such null subject clauses arose on the model of the overt subject type, but they had or came to have a special interpretation. The usual view is that the implicit complement subject is thematically an intermediate agent and so cannot be understood as the causative subject, but Denison proposes that it simply has an unspecified interpretation, and that context determines whether or not it is understood as the causative subject. When the matrix and implicit complement

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[4] On the OE evidence for causative *dōn* see Mitchell (1985: 1.266) and *DOE* (s.v. *don* III). Because of its OE rarity and because it is used to gloss the Latin causative construction with *facere* 'make', causative *do* is sometimes said to have originated as a literary calque that only entered the spoken language in ME. Comparative evidence, however, suggests that OE inherited it from WGmc. Its cognate *tun* 'do' functions as a causative in all other sufficiently well attested old WGmc dialects, as shown by Weiss (1956), and while Weiss's analysis differs, his own collection reveals that it is precisely *tun* rather than *machen* 'make' that is the causative verb regularly used when *not* calquing *facere. Do* and *facere* are themselves cognate, though different in morphological detail, and Coleman (1985: 318–19) suggests that they may reflect a PIE causative periphrasis. The rarity of OE causative *do* is surely due to the accidental fact that whereas it was primarily an eastern dialect feature, most attested OE is south-western.

subject are identical, the sentence has what we now call periphrastic *do*, and otherwise it has causative *do*. The *do* periphrasis is the same construction as the causative construction in (6). This *do* + infinitive construction was 'used to focus not on who did it but on what happened', Denison speculates, and *do* may have been a 'perfective or completive' aspectualizer meaning 'something like "achieve (the action of the infinitival VP)", but without agentive associations' (1985: 51).

In short, according to Denison, what is usually treated as the creation of periphrastic *do* was actually the creation of a perfective *do* + infinitive construction, as in (10b), on the basis of the causative construction in (10a). (The structural analyses in (10) are not Denison's.)

(10) (a) CAUSATIVE *DO*: [$_{IP}$ NP$_{AGENT}$ do [$_{IP}$ NP V NP ...]]]
     (b) PERFECTIVE *DO*: [$_{IP}$ NP$_{AGENT}$ do [$_{IP}$ (PRO) V NP ...]]

As long as the constructions in (10a) and (10b) coexisted, the latter's aspectual value and biclausal syntax could be maintained. With the elimination of the former, though, ultimately replaced by the now standard *make* causative, the perfective *do* + infinitive construction in (10b) 'would have become entirely isolated' (1985: 52) and was absorbed into the auxiliary verb system.

This analysis ingeniously addresses the problem of motivation by reconstructing an aspectual function for early auxiliary *do*. Any such account which distinguishes between truly 'periphrastic' *do* and another functional use has important consequences for the study of the regulation of *do*. In particular, the statistical data assembled by Ellegård (1953) are compromised or even worthless. Much has been made of Ellegård's data, but the causative-origin theory led him to count all noncausative examples of *do* + infinitive as instances of the same linguistic object. If constructions with distinct functions are in fact represented, the data must be re-sorted and re-counted before any statistics are accepted as linguistically meaningful.

An argument in favor of Denison's theory is based on the aktionsart of VP complements of *do*. In over 400 *do* + infinitive examples from the thirteenth and fourteenth centuries, all but about 50 are accomplishments, and some two dozen are achievements. Denison suggests that only these aktionsart types – telic eventualities – are compatible with perfective aspect.[5] If accomplishments are logically causative, however, as Dowty (1979) and others argue, Denison's results may not be too surprising. We might expect the same results if most ambiguous *do* + infinitive examples are causative. A semantically empty auxiliary should favor no one aktionsart type, of course, but the distribution Denison reports is not replicated among the unambiguously periphrastic examples cited in section 3.4 and the Appendix below.

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[5] But activity predicates permit both perfective and imperfective aspect, as shown by the French minimal pair *il régna trente ans* 'he had a reign of thirty years' vs. *il régnait trente ans* 'he was reigning during thirty years' (Comrie, 1976: 17). Telic predicates may be typically perfective, but caused eventualities need not themselves be telic. It is easy enough to find ME examples of causative *do* with atelic embedded VPs, e.g. at *Horn* (Cmb) 1023–24: *His folk he dude abide Vnder wude side* 'He had his folk wait in the outskirts of the wood'. A causative > perfective shift therefore perhaps requires further justification.

The analysis also has problems of its own. For example, as Denison notes (1993: 279), it cannot easily explain the western provenance of all apparently periphrastic examples of *do* in the thirteenth century and most examples in the fourteenth century. Ellegård takes this to reflect the areal spread of periphrastic *do*, but it is essentially a coincidence on Denison's view that 'causative' and 'periphrastic' *do* + infinitive are the same.[6] A second problem concerns the actual creation of the NP + *do* + infinitive construction in (10b), which the causative construction in (6) and (10a) is said to have 'spawned' (Denison, 1993: 279). There is no explicit discussion of this change, or its semantic or syntactic basis. Given the unambiguous construction in (10a), how and why did language users create the semantically and syntactically dissimilar one in (10b)?

2.4   Ellipsis

OE and ME verbal ellipsis has been studied by Warner (1992, 1993) and Higgins (1992b), who cite most of the examples quoted in this section. Already in OE, a class of auxiliary-like verbs can be distinguished by their behavior in ellipsis contexts. This class contains at least the modals, *bēon* > *be*, and *dōn*, and it is ancestral to the modern class of auxiliaries. The OE example in (11a) shows VP ellipsis with modals, and the one in (11b) shows main verb ellipsis, in which an auxiliary-like verb occurs with nominal arguments as if governed by the omitted verb.

(11) (a) *Bo* 11.25.27–28
          Forðy is betere þæt feoh þætte næfre losian ne mæg ðonne þætte mæg & sceal
          'Therefore better is the property that can never perish than that which can and
          will'
      (b) *CP* 4.39.11–12
          We magon monnum bemiðan urne geðonc & urne willan, ac we ne magon
          Gode
          'We can hide our thoughts and our desires from men, but we can not from
          God'

Ellipsis is also common with *do*, as in (12).

(12) (a) OE: *HomU 1* (Belf 10) 104.24–26
          Ofte siþæs hit ilamp, & nú ʒyt deþ, þ[æt] englæs beoð ofte hyder on middanearde
          isende, monnum to hælpe & to fultume
          'Many a time has it happened – and it still does – that angels are frequently
          sent hither into the world to help and assist men'   (Belfour, 1909: 105)
      (b) c1275 (c1200) *Owl & N* (Clg) 283–86
          Vor nere ich neuer no þe betere Yif ich mid chauling & mid chatere Hom
          schende, & mid fule worde, So herdes doþ oþer mid schitworde
          'For I would not be any better at all if I reviled them with jawing and with
          chatter, and with foul words, as shepherds do to each other with shit-words'

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[6] Denison does speculate that reanalysis of an originally biclausal *do* + infinitive construction as monoclausal 'was connected with the spread to the west' (1985: 57). But this suggestion of reanalysis with dialect borrowing – endorsed by van der Wurff (1992: 81n10) – is not developed further.

As in the modern language, ellipsis contexts in OE and ME seem to require *do* in the absence of any other auxiliary-like verb.[7]

The periphrastic use of *do* with infinitives might, as Higgins (1992b), Warner (1992: 204), and others have suggested, reflect an extension from its use with implicit verbs in ellipsis contexts. As an analogical change, this would have been supported by the parallel use of modals and *be* in ellipsis contexts and with overt infinitives. It is indeed hard to believe that the similarities between the later syntax of *do* and its OE ellipsis use are entirely coincidental. But there are two problems. This account, like others, cannot easily explain the data in section 3. And while *do* was used in ellipsis contexts at least as early as PWGmc, as Higgins himself shows, only in ME is it first attested in periphrastic contexts. If the extension is straightforward, what caused a millennium-long delay?

2.5 Summary

There is no fully satisfying explanation of the origin of periphrastic *do*. Accounts relying on language contact have made too many ad hoc assumptions, and do not generally conform to what is now known about contact-induced change. Most language-internal accounts have appealed to one of the other secure OE uses of *do*. Three proposed sources may seem attractive: reanalysis of causative *do* (section 2.2); perfective *do*, itself a development from causative *do* (section 2.3); and extension from *do* in ellipsis contexts (section 2.4). Each of these accounts has its flaws, however, and none can easily accommodate the new evidence to be cited in section 3.

3   Habitual *do*

Evidence from habitual aspect marking will be crucial below. According to Comrie (1976: 27–8), habitual sentences 'describe a situation which is characteristic of an extended period of time, so extended in fact that the situation referred to is viewed not as an incidental property of the moment but, precisely, as a characteristic feature of a whole period'. I will use the standard term HABITUAL, though (as Comrie implies) a term like CHARACTERIZING might be more accurate. A recent overview in fact uses precisely the latter term for sentences 'which do not express specific episodes or isolated facts, but instead report a kind of GENERAL PROPERTY, that is, report a regularity which summarizes groups of particular episodes or facts' (Krifka et al., 1995: 2).

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[7] The distribution of the modals and *be* naturally suggests that in ellipsis contexts they simply have VP complements with null heads, that is, syntactically deleted or anaphorically interpreted null verbs. If the same analysis is appropriate for *do* in ellipsis contexts, as Higgins notes, then periphrastic *do* already existed in OE in the sense that *dōn* occurred with a VP complement in at least one noncausative context.

3.1   Modern dialects

Most NE dialects mark past-tense habitual aspect by *used to* and *would*, but nonstandard English dialects of Ireland (Hiberno-English) and southwestern England also use the auxiliary *do*. Both dialects have a present-tense habitual use of *do*, and southwestern dialects have a past-tense use.

Habitual aspect marking in southwestern English was first described by the nineteenth-century poet William Barnes. His Dorset dialect grammar includes verb paradigms that explicitly contrast habitual forms like *I do meäke* 'I make' and *I did meäke* with nonhabitual forms like *I'm a-meäkèn, I meäde*, and *I wer a-meäkèn* (1863: 25–7). Similarly, Frederic Elworthy's grammar of the west Somerset dialect contrasts present habitual forms like *I do sing* and nonhabitual forms like *I be singin* (1877: 75–6). Barnes (1886: 23) describes an 'imperfect or habitual' category as follows:

> We have, in Dorset, an aorist, and also an imperfect tense-form of repetition or continuation ... A boy said to me, in speaking of some days of very hard frost, 'They *did break* the ice at night, and *did vind* it avroze ageän nex' mornèn.' That is they *broke* and *found* several times. If they had *broken* and *found* only once, he would have said: 'They *broke* the ice at night, an' *vound* it,' &c.
> She beät the child, is *beat at some one time*.
> She did beät the child, is *was wont to beat*.

After comparing the *do* construction and simple verb respectively to the Greek imperfect and aorist, he offers these glosses: *How the dog do jumpy* means 'keep[s] jumping', and *The child do like to whippy* means 'amuse[s] himself with whipping' (Barnes, 1863: 28); the second example involves a characteristic state (liking) and not an actual habit. In sum, Barnes, Elworthy, and J. Wright (1898–1905: s.v. *do*) give abundant evidence for a robust habitual aspectualizer *do* in nineteenth-century southwestern dialects.

Like other English regionalisms, this form has receded in the twentieth century, but it is still well documented. The best modern study of its function (though limited to the past tense) is that of Ihalainen (1976), whose east Somerset fieldwork data show that in unemphatic affirmative declarative sentences periphrastic *do* 'only occurs in generic contexts, whereas the simple past tense form can occur in generic and specific contexts' (1991: 159). Clear present and past tense examples of the habitual aspectualizer *do* appear in (13–14) respectively.

(13) (a) I've captained the women now for eleven year – in the cricket, and I do dress the same as the women: I do have my lipstick, earrings, mother's hat, mother's dress, ruff, and we won the cup eleven years. (Wakelin, 1986: 77)

   (b) Money do grow out there, you know, like turmits an' cabbages.
   (Mackie, 1925: 83)

(14) (a) Some years ago I was milking wi' some men and they did chew 'bacco.
   (Wakelin, 1986: 190)

   (b) The surplus milk they did make into cheese and then the cheese did go to the different markets, that's how that did work.   (Ihalainen, 1976: 615)

For some dialect speakers nowadays, auxiliary *do* has been extended beyond its original aspectual function, but this is a recent hyperdialectalism.[8]

For Hiberno-English, three nonstandard present-tense habitual constructions are described in P. Henry's study of a dialect of County Roscommon (1957: 168–72). Two of these, a *do* + infinitive construction and a finite *be* (+ participle) construction, are shown in (15–16).[9]

(15) (a) It does rain a lot in winter. (P. Henry, 1957: 172)
    (b) Well, when you put them onto the barrow you do have them in heaps and then you do spread them and turn them over and all. (Harris, 1984: 306)
(16) (a) There bees a fret o' people at the fairs o' Boyle. (P. Henry, 1957: 169)
    (b) We be often wondering where he gets the money. (P. Henry, 1957: 170)

Harris (1984: 306) cites the example in (17) as 'a nice illustration of the distinction between non-habitual *is* and habitual *does be*'.

(17) He's the kind of person that you would never know when he was drunk, but he does be, if you know what I mean.

The habitual *do* + infinitive and *be* (+ participle) constructions in (15–16) are said to be perfective and imperfective respectively by Harris (1984, 1986).

3.2 ENE evidence

For both these dialects, direct and indirect evidence shows that habitual *do* was present already in the ENE period. Southwestern evidence is limited, since few pre-nineteenth-century texts are reliably attributed to native speakers. A sixteenth-century non-native parody is quoted in (18).

(18) Iche cham ['I am'] a Cornyshe man … Iche cannot brew, nor dresse Fleshe, nor vyshe; Many voke do segge ['say'], I mar many a good dyshe (Wakelin, 1986: 54)

Such evidence suggests that habitual *do* may have been a salient feature of southwestern dialects. Parody can be revealing in the case of Hiberno-English too, but here there is useful genuine data.[10] Two seventeenth-century examples are given in (19).

(19) (a) The river of the Leffye was so frozen that men did leap and play with balls, and did make fire with timber and troffe ['turf'] upon it; the which fire did roast eels
    (b) He … is cured of the womitting disease, and douth eate and drinke ever since with a great apetit and desire

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[8] See Trudgill (1986: 70–1). On the geographical distribution of habitual *do* see Klemola (1994).

[9] The third habitual construction is an apparent blend, *do* + *be* (+ participle) – e.g. *They does be lonesome by night, the priest does, surely* (Filppula, 1997: 953) – on whose function see P. Henry (1957: 168) and Todd (1984: 170–1).

[10] See generally Bliss (1979) on stage Irish; Ellegård remarks that Otway in 1692 'makes an Irish character use the do-form with almost every verb' (1953: 164). The examples in (19) are cited from Kallen (1986: 141–3).

The conclusion that habitual *do* was present in sixteenth- or seventeenth-century English dialects is confirmed from an unexpected source. Harris (1986) and Rickford (1986) have shown that apparent reflexes of *do* (*be*) functioning as habitual aspectualizers in West Atlantic varieties of English, including Caribbean creoles with English superstrates, are derived historically from Hiberno-English or southwestern English.[11] The representative Miskito Coast Creole English example in (20) is cited from Holm (1988: 158), according to whom the speaker 'used the habitual marker *doz* to stress the fact that his seventy-year-old aunt was in the habit of rowing her canoe some forty miles to Bluefields to sell produce and buy supplies'.

(20) Shi aluon doz guo doun to bluufilz bai kanu.
      'She goes down to Bluefields alone by canoe.'

Detailed historical and linguistic arguments are given by Harris and Rickford. As they point out, some of the relevant seventeenth-century English-speaking super-strate populations contained large numbers of immigrants from Ireland and south-western England. The view that West Atlantic habitual *does* continues the habitual *do* of dialects of the British Isles is consistent with universalist approaches to creole aspectual systems: the point is that *do*, not some other superstrate word, was selected as a habitual aspectualizer. This is most easily explained by assuming that *do* had that function in the lexifier. The implication of this in turn is simple: if the forms in (20) continue a habitual *do* construction, this must already have existed when the relevant West Atlantic English varieties were formed in the seventeenth century. The indirect testimony of West Atlantic varieties of English thus supports the view that the auxiliary verb *do* was a habitual aspectualizer, in some constructions, in sixteenth- and seventeenth-century nonstandard English dialects.

3.3   Discussion

The presence of the same unusual feature in English dialects of Ireland and southwestern England needs an explanation. Independent NE innovation seems unlikely. Some writers assume that the aspectual value of southwestern *do* developed from either the modern *do*-support system or from Jespersen's 'exuberant use' of *do*, but I am familiar with no detailed account of how a semantically empty auxiliary might become a habitual aspectualizer. Such a change seems far from trivial.[12]

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[11] See Holm (1989: 407) for a survey of the data; cf. J. Williams (1988) on habitual *do* (*be*) in white Anglo-Caribbean English, which may directly reflect superstrate varieties. The *do* forms also mark progressive aspect in some cases.

[12] A referee speculates that habitual function might have arisen in a semantically empty form 'by the LOSS of other functions, just as the simple present tense has come ... to have a default value which is habitual/generic'. Cf. Bybee et al. (1994: 151): 'developing a progressive that cuts out part of an originally more general present and leaves the present habitual as a default reading ... has restricted the English Present to habitual and generic readings'. But the simple present form does *not* mark habitual aspect; its habitual readings arise only in certain contexts, and they compete with several other interpretations. Moreover, even if a default habituality scenario is plausible for present-tense verbs, southwestern English *do* also marks habitual aspect in the past tense, where habitual contexts should

Harris (1986: 190) suggests that Hiberno-English habitual *do* was borrowed from southwestern dialects. This possibility cannot be excluded, since some southwestern English speakers must have been present in seventeenth-century Ireland, but because significant borrowing between the two dialects is not in fact attested, it lacks independent support. Likewise, since the two dialects do not form a dialect area, we cannot treat habitual *do* as a common innovation of Hiberno-English and southwestern English. Hiberno-English is divided into discontinuous medieval and modern periods. The older language subgroups with southwestern English (P. Henry, 1958; Barry 1982: 99–101), but except for several nineteenth-century relic dialects it was mostly dead by the modern period. Modern Hiberno-English is not descended from medieval Hiberno-English, and it shows no special relationship with the dialects of southwestern England; its southern dialects at least are closest to West Midland English (and its northern dialects to Scots English).

Language-contact accounts have also been proposed. For southwestern dialects, Celtic influence was suggested by Barnes (1863: 26, 1886: 23), who compares the construction in (4) above; but this cannot account for the English aspectual value. Better comparanda are the habitual forms of 'be' found throughout Celtic, e.g. Irish present *bíonn* vs. nonhabitual *tá*, Welsh habitual *byddaf* 'I am', *byddwn* 'I used to be' vs. *wyf* 'I am', *oeddwn* 'I was'. Since 'be' is the only present-tense verb overtly marked for this category, its lexical distribution might seem rather unlike that of southwestern habitual *do*, but in fact the periphrases illustrated in (21) can mark other verbs as habitual.

(21) (a) Welsh   (S. Williams, 1980: 73)

Byddaf	yn	myned	yno	bob	haf.
be (HAB.PRES.1SG)	PTCL	go (VN)	there	every	summer

'I go there every summer.'

  (b) Irish   (Harris, 1986: 179)

Bíonn	sí	ag	scríobh.
be (HAB.PRES)	she	at	writing

'She's (habitually) writing.'

The lexical distribution of habitual marking in both Celtic branches is thus consistent with its having led via interference to habitual aspect marking in English. But such a contact account of habitual *do* must also satisfy two other criteria. Linguistic interference between the two systems in question must be independently motivated, as noted in section 2.1, and the particular choice of *do* rather than another verb (e.g. *be*) as a habitual marker must be explained.

In the case of southwestern habitual *do*, a contact account along these lines fails for the first reason. Celtic influence *might* be expected in the southwestern dialect, to be sure, but it is in fact notoriously absent there. Significant Celtic influence in the southwest is found only in west Cornwall, an area where Cornish was spoken

not have been especially prominent. An almost unconstrained view of semantic change is implicit in the suggestion that, even in such circumstances, habitual function might have been innovated on the basis of those cases of periphrastic *do* which happened to occur in habitual contexts (Kallen, 1986: 142–3).

through the ME period and one that is crucially not part of the southwestern dialect area and systematically lacks diagnostic features of that area.[13] Southwestern habitual *do* thus cannot be due to contact with Cornish or another Celtic language.

For Hiberno-English habitual *do*, substratum influence is the usual account (Harris, 1986: 178–81). The first requirement for a contact explanation noted above is clearly satisfied, since it is widely recognized that Irish has massively influenced the English of Ireland. Many features of Hiberno-English phonology and morphosyntax reflect substratum interference during language shift, and habitual *do* could in principle be another. But the second requirement has not been satisfied by an adequate explanation of why (perfective) habitual aspect is marked by *do* and not some other verb.[14] Perhaps the *retention* of habitual aspect marking in Hiberno-English is partly explained by its presence in Irish, but the construction cannot have *originated* by substratum interference with nonhabitual *do*. Another explanation is needed for the presence of habitual *do* in both Hiberno-English and southwestern English.

A final explanation is that Ireland and southwestern England are areas of marginal preservation in the classic sense: they retain an archaism that may once have had a wider distribution. This is in some ways the most obvious account, whose neglect underscores the prestige anachronistically enjoyed by standard English. Like all standard languages, this has obliterated features of other dialects, and the absence of habitual *do* in a dialect can easily reflect its influence. A conservative inference is that Hiberno-English inherited a habitual use of *do* from ENE, where it was found in western dialects generally.[15] Habitual *do* is retained in two peripheral dialects, and has been lost elsewhere. Whereas it is hard to explain the development of habitual meaning in a semantically empty periphrasis, the loss of aspectual functions is common. *A priori*, if habitual and periphrastic *do* are directly related at all, the overwhelming likelihood is that the habitual use engendered the

[13] See e.g. A. Fischer (1976: 294–360) and Wakelin (1972: 126–30). The distribution of words for 'smallest pig of a litter' is typical: a Celtic loan *(piggy-)whidden* is found only in west Cornwall, and elsewhere in the southwest the term is the Germanic *nestle(-tripe)* (A. Fischer, 1976: 269). Poussa (1991: 418–20) cites hydronymic data in arguing that Celtic influence on southwestern OE may have been more substantial than previously thought, but even a glance at the North American situation reveals that the survival of substratum toponyms hardly entails other linguistic influence. The question in this case is not what Celtic and English linguistic *contact* may have existed during any particular period, but whether there is evidence for any significant *interference* caused by language shift.

[14] The imperfective habitual *be* (+ participle) construction in (16) may well be transferred from Irish. For *do*, a complex account proposed by Bliss (1972: 75–81, 1979: 292–4) relies on partial similarity between English contexts calling for *do*-support and Irish contexts calling for dependent verb forms. Yet as Harris (1986: 179–80) points out, this contextual similarity is less striking than it may seem: the Irish forms occur in several contexts that do not parallel *do*-support contexts, while seventeenth-century periphrastic *do* was not yet altogether restricted to those contexts. Moreover, as Bliss himself observes, on his account Hiberno-English habitual *do* 'ought to be a relatively late development; one would hardly expect to find it much before 1800' (1972: 80). This prediction is contradicted by seventeenth-century data like (19) above.

[15] This also naturally explains the absence of any habitual use of *do* in Hebridean English (Filppula, 1997), whereas a substrate account must seek relevant differences between Irish and Scottish Gaelic.

periphrastic one. In short, in the absence of other evidence, it is habitual *do* that should be reconstructed as the ancestor of *do*-support.

3.4   ME evidence

Other evidence is not absent, of course. I have examined 195 noncausative instances of auxiliary *do* from c. 1400 and earlier; a majority occur in habitual contexts. In the earliest sources, from c. 1300, 41 of 60 examples (i.e. 68 per cent) occur in habitual or characterizing contexts, as do 77 (i.e. 57 per cent) of the other 135 examples. This distribution cannot be accidental, since the texts are full of narrative (e.g. saints' lives). See the Appendix for complete details on the evidence surveyed here.

In some cases, including (22a–b), the habitual context is shown by an adverbial expression such as 'often' or 'always'.

(22) (a) c1300 *SLeg* (Ld) 423/97
            A preost was ȝwilene in one stude þat dude him baþie i-lome
            'A priest was once in a place that frequently bathed him'
      (b) c1390 *Talking LGod* (Vrn) 54/23–29
            Þou fel swonynde doun ofte ... & euer at þe end ful sore þou dudest wepe
            'You often fell down swooning ... and always at the end you wept bitterly'

Habitual contexts are sometimes shown by verbal arguments. For instance, in (23a–b) respectively, the subject and object are generic, since they contain generalizing relative clauses.

(23) (a) c1325 *Middelerd for mon wes mad* 18–19
            Þat liueþ on likyng out of lay his hap he deþ ful harde on hete
            'He who lives on unlawful pleasure laments his fortune bitterly'
      (b) c1300 *SLeg* (Ld) 261/3–8
            Vnneþe heo was tweolf ȝer old are ... al hire wille heo dude to sunne of
            lecherie ... Alle þat bi hire ligge wolden gladliche he dude a-fongue
            'She was hardly twelve years old before ... she put all her will to the sin of
            lechery ... She gladly accepted all that wanted to lie with her'

Generalizing relative clauses contain *do* in (24a–b).

(24) (a) c1330 (?c1300) *Bevis* (Auch) 2305
            And what he be, þat þer of doþ drynke, He shal lerne for to wynke
            'And he who drinks from it shall learn to wink'
      (b) c1300 *SLeg* (Ld) 201/55
            Onneþe comez þare ani a-ȝen þat doth þare-in i-wende
            'Scarcely any who go therein come there again'

The subordinate clause action need not be habitual in cases like (24a–b): (24a) does not require a habitual drinker, and (24b) excludes habitual in-goers. Habitual aspect marking is nonetheless suitable given the overall characterizing context. Compare the modern examples in (25).

(25) (a) 1863 Mrs. C. Brock *Margaret's Secret* ii. 31 (*OED*)
> When I used to find fault he would get uppish with me, and answer back rudely.

(b) They always do say that that stone every time he do hear the cock crow, he do get up and turn round.   (Elworthy, 1877: 98)

In (25a), the uppishness occurred on each fault-finding occasion, not just in response to habitual fault-finding. In (25c), cited from Elworthy's Somerset dialect grammar, the stone is said to move when it hears the cock crow, not when it habitually hears the cock, yet habitual *do (hear)* is used.

Habitual interpretation is shown by content or context in (26a–b), which respectively express a natural truth and an eventuality which is obviously habitual.

(26) (a) a1325 (c1280) *SLeg. Pass.* (Pep) 1660
> Þer nys no veyne in a mannes body þat ne . . . to þe heued doþ wende
> 'There is no vein in a man's body that does not go to the head'

(b) a1425 Wyclif *Serm.* (Bod) 1.379/26
> Blessid be þe wombe þat bare þee, and þe tetis þat þou didist soke
> 'Blessed be the womb that bore you, and the teats that you sucked'

In (26b), note the contrast between the habitual relative clause with *do* and the first relative clause, referring to a single event.

In a small number of examples like (27), the interpretation is unclear.

(27) (a1393) Gower *CA* (Frf) 4.2427–32
> And Jadahel, as seith the bok, First made Net and fisshes tok: . . . A tente of cloth with corde and stake He sette up ferst and dede it make

Jadahel invented various hunting and fishing practices, and *ferst . . . dede it make* in (27) could be understood as 'first made it (once)' or as 'first made it (characteristically, perhaps many times)'. I have counted ambiguous examples like (27) as habitual, since the purpose is to see how much data a habitual *do* would explain; readers are encouraged to check the evidence cited in the Appendix.

The examples in (28) merit special comment.

(28) (a) c1300 *SLeg.* (Ld) 7/201–202
> . . . a swiþe fair welle, Fram ȝwam alle þe wateres on eorþe comiez ase þe boc us dez telle
> '. . . a very fair spring, from which all the waters on earth come, as the book tells us'

(b) c1380 *Firumb. (1)* 253
> Wiþ þe werste Sarsyn wil he fiȝt þat he dude euere a-saye
> 'He will fight with the worst Saracen that he ever fought with'

(c) a1400 (a1325) *KTars* (Vrn) 268–269
> Weore þei wel weore þei wroþe þe douȝter dude ouercome hem boþe
> 'Whether they were happy or angry, the daughter could overcome them both'

The common type of (28a) illustrates what Jespersen (1931: 18) calls 'the generic or "omnipresent" tense in statements of what may be found at all times by readers'. In (28b), where a generalizing relative clause has a head noun modified by a superlative

adjective, a characterizing or natural-truth interpretation arises over a range defined by the superlative: within that range the relevant Saracen is the worst he ever assayed. This example also provides a point of contact with nonfactive uses of *do* discussed in section 5. In (29c), the subordinate clause imparts a generalizing force which makes the modal interpretation shown for the main clause superior to an episodic one like 'she overcame them both'.

A final context reflects the broader semantics noted above for habitual aspect: characteristic states – or intrinsic or individual-level states, as opposed to accidental or stage-level states – can be seen as habitual.[16] Translations with *used to* thus seem possible in (29a–b).

> (29) (a) (a1387) Trev. *Higd.* (StJ-C) 1.397
>   Wales … sometyme hi3te Cambria, For Camber … Was kyng, and þere dede wone
>   'Wales was once called Cambria, for Camber was king, and lived there'
> (b) ?a1400 (a1338) Mannyng *Chron. Pt. (2)* (Petyt) 213–14
>   Þerof gan he die; at Teukesbiri in toumbe his body did lie
>   'From it he died; his body lay in a tomb at Tewkesbury'

Such examples are naturally more uncertain than those involving habits or general truths, since the difference between a characteristic and an accidental state may reflect speaker perspective more than any objectively measurable or identifiable factor. Note that a clear majority of 'periphrastic' examples of *do* are habitual even if examples like (29a–b) are rejected.

A striking example of auxiliary *do* occurs in a fourteenth-century text surviving in several manuscripts. Three manuscripts use *do* as in (30a), but the parallel passage in a fourth manuscript is shown in (30b).

> (30) (a) a1400 (a1325) *Cursor* (Trin-C) 18027–28
>   þis same mon was he þat dede men dud drawe fro me
>   'This same man was he [i.e. Jesus] who drew dead men from me [i.e. Hell]'
> (b) a1400 (a1325) *Cursor* (Göt) 18027–28
>   þis ilke man was he was wont to drau þe dede men fra me
>   'This same man was he (who) was wont to draw the dead men from me'

Of interest here is the equivalence of *dud* 'did' and habitual *was wont to* in different manuscripts of the same text, suggesting the possibility that they were perceived as isofunctional. Accident cannot be excluded as an explanation for an isolated example, but a habitual *do* would provide a more principled account.

Though 'periphrastic' *do* appears unexpectedly often in habitual contexts, there are many nonhabitual examples: 77 (i.e. 39 per cent) of the 195 citations in the

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[16] This is clearly seen in languages with unambiguous habitual aspect marking. In the Athapaskan language Carrier, for example, the USITATIVE verb form 'expresses wont, custom and sometimes generality, or indefiniteness' (Morice, 1932: 420); Morice translates representative examples as 'I use to abstain from work' and 'it is my wont to stay home'. But in one context, according to Morice, 'verbs … which do not seem usitative in English are so in Carrier' (p. 431): such verbs denote characteristic states, with translations including 'to be pugnacious', 'to be cultivable', 'to be variable (essentially)', and the like.

Appendix are nonhabitual, as in (3) and (9a) above. Even excluding the 16 examples in modern *do*-support contexts – interrogative, negative, and inversion contexts – 61 cases remain where 'periphrastic' *do* is not habitual. For such cases two explanations seem possible. One is that *do* is unrelated to habitual aspect (i.e. that the claims of this paper are false). This does predict the occurrence of *do* in non-habitual contexts, but it fails to explain the frequency of habitual contexts or the dialect data in sections 3.1–3. Another possibility is that auxiliary *do* has habitual aspect marking as a primary function in the thirteenth and fourteenth centuries, but also has one or more other functions underlying its use in sentences like (3) and (9a). Such functions could be independent or related to the habitual function, and will be discussed in section 5.

4   The origin of habitual *do*

The habitual use of *do* can hardly be a consequence of the causative or the V(P) ellipsis use. I will argue in this section that a main-verb use of *do* was the source of habitual *do*. I describe this use in section 4.1, and I summarize the proposed change in section 4.2. In sections 4.3–4 I explore morphological and semantic aspects of the change.

4.1   Lexical do

The verb *do* originally meant 'put'. This sense and a resultative use are shown for OE in (31).

(31) (a) *Lch II* (1) 2.20
            Wiþ eagece genim wiþowindan twigu gecnuwa awylle on buteran do on þa
            eagan
            'For eye ache, take twigs of withewind, pound, boil in butter, put on the eyes'
      (b) *Lch II* (3) 39.2.7
            Seo sealf ... þone wyrm þæron deadne gedeþ oþþe cwicne ofdrifð
            'The salve makes the worm dead or drives (it) off alive'

Resultative and causative *do* are clearly related to each other and the 'put' use. These and several idiomatic and specialized uses may be disregarded here.

I will use the term LEXICAL *do* for the remaining and major sense of *do*. Lexical *do* can be used intransitively, as in (32).

(32) (a) OE: *PPs (prose)* 17.21
            And ic ne dyde arleaslice ne unhyrsumlice wið minne Drihten
            'And I did not act impiously or disobediently against my Lord'
      (b) ?a1160 *PeterbChron* (Ld) an. 1137
            Næure hethen men werse ne diden þan hi diden
            'Heathen men never acted worse than they did'

Intransitive *do* often has adverbial modification that describes the action.[17]

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[17] In (32b) the second *diden* 'did' might be simple intransitive *do* ('worse than they acted') or *do* with ellipsis ('worse than they did'); cf. (12). Another construction, superficially similar to V(P) ellipsis and

With transitive lexical *do*, the object NP may denote the effect or result of the verbal action. In such cases, as in (33), the verb can often be translated 'act so as to bring about, cause, make'.

(33) (a) OE: *Bede 1* 7.36.34 – 7.38.1
         He ealle þa witu, ðe him man dyde, geþyldelice & gefeonde for Drihtne abær
         'He bore ... with patience and joy all the pains inflicted on him for the Lord's sake'   (Miller, 1890: 37–9)
     (b) a1325 (c1250) *Gen & Ex* (Corp-C) 42
         Ðis middes werld ðor-ime he dede
         'Therein he made this middle world'

In other cases the object NP names an action or kind of action, and the verb means more or less 'perform (an action), do (something), carry on (an activity)' (*MED* s.v. *dǫn* 1a). The difficulty of a precise definition is suggested in *OED* (s.v. *Do* 5): 'Since every kind of action may be viewed as a particular form of *doing*, the uses of the verb are as numerous as the classes of objects which it may govern.' Two examples appear in (34).

(34) (a) OE: *CP* 19.141.11
         Se reccere his godan weorc for gielpe anum ne do, ac ma for Godes lufan
         'The ruler is not to do his good works for vainglory only, but rather for the love of God'   (Sweet, 1871: 141)
     (b) c1330 *SMChron* (Auch) 1664
         For aþelston he dede a bateyle
         'He fought a battle for Athelston'

In examples like (35a–c), the object is a bare (simplex or compound) noun.

(35) (a) OE: *Bede 1* 15.62.5
         In þisse cyrican ærest þa halgan lareowas ongunnon heo somnian & singan & gebiddan & mæssesong don & men læran & fulwian
         'In this church the holy teachers first began to assemble for song and prayer, and to celebrate mass, teaching and baptizing men'   (Miller, 1890: 63)
     (b) ?a1160 *PeterbChron* (Ld) an. 1137
         Þa the suikes undergæton ðat he milde man was ... & na iustice ne dide, þa diden hi alle wunder
         'When the traitors understood that he was a kind man ... and did not enforce the law, then they all acted atrociously'
     (c) c1300 (?c1225) *Horn* (Cmb) 556–58
         Ihc wulle do pruesse ... Mid spere & mid schelde
         'I will do prowess (i.e. valiant deeds) with spear and with shield'

presumably its ancestor, is illustrated here for OE: *Se cing het hi feohtan agien Pihtas & hi swa dydan* 'The king ordered them to fight against the Picts, and they did so' (*ChronA* 449.5–6). Higgins (1992b) shows that ellipsis is *not* present in examples (like this) where the manner adverb *swa > so* is 'in whatever underlying position is proper for an adverb of manner' (e.g. after the subject). In such examples *swa dǫn* means 'something like "to act in such a manner, in that manner"'. The verb is intransitive and has a very general sense, being used of the acts and activities of agents.' This construction, unlike the ellipsis construction, does not occur with object-like nominal arguments.

For direct objects with both action and result interpretations (e.g. *injury* = 'act of injuring' or 'wound'), the addition of an affected argument to the *do* + NP 'perform an action X' construction in (34–35) may yield the natural interpretation 'cause an effect X in Y', as in (32a).

4.2   *Lexical > habitual* do

I propose that the source of habitual *do* was lexical *do* construed with a bare singular object noun. As shown in (36), a main verb was reinterpreted as a habitual aspect marker, and its nominal object was reinterpreted as a nonfinite verb.

(36) (a) SOURCE: $[_{IP} NP_{AGENT} [_{VP} do [_{NP} N] \dots]]$
     (b) REINTERPRETED AS: $[_{IP} NP_{AGENT} do [_{VP} V \dots]]$

As F. R. Higgins points out (*per litteras* 7/92), such a change might also have had some support from the construction in (33). EME indirect objects, including pronouns, are often marked by no preposition or case ending that distinguishes them from direct objects. The reinterpretation in (37) would be possible in such instances.

(37) (a) SOURCE: $[_{IP} NP_{AGENT} [_{VP} do [_{NP} N] NP \dots]]$
     (b) REINTERPRETED AS: $[_{IP} NP_{AGENT} do [_{VP} V NP \dots]]$

Moreover, word order was once freer than it is now. The orders in (38a–b) are both well attested in ME, and with pronominal direct and indirect objects respectively they are frequent at least as late as the fourteenth century.

(38) (a) Auxiliary *do* + direct object + infinitive
     (b) Lexical *do* + indirect object + direct object NP

EME was in fact the only stage in the history of English when the word orders in (38a–b) were common with nominal direct and indirect objects respectively but case marking permitted confusion between them. An example of the pivotal kind is given in (39).

(39) a1325 (c1250) *Gen & Ex* (Corp-C) 3726–27
     Leafeð ben swile wurdes ref, and doð nogt god almigten wrong
     'Leave off such rough words, and do not do wrong to God Almighty'

Nagel (1909) cites many other comparable EME examples, and they are very common in texts.

   The change in (36) is plausible only if the inherited and innovated structures – i.e. (36a) and (36b) respectively – approximate each other formally and functionally. Three empirical desiderata thus arise:

(40) (a) It should be possible to identify a coherent set of nouns that were identical to infinitive verbs. Given such preexisting noun-verb pairs, some *do* + noun sequences might be reanalyzed as *do* + verb sequences.
     (b) For each of the nouns in question, the interpretation of a *do* + noun sequence must have been similar to that of the corresponding verb.

(c) The interpretation of the *do* + noun sequences in question must explain the aspectual value of habitual *do*: whatever set of nouns is identified, the meaning of *do* + bare noun sequences should approximate that of habitual *do* + verb.

Needless to say, these three requirements must be satisfied for the dialect where auxiliary *do* arose.

By itself the proposal that auxiliary *do* descends from a *do* + noun construction is not original. Lexical *do* has been mentioned as a possible source of the auxiliary, but to my knowledge only in a secondary role.[18] I will adduce new evidence in arguing here that it is in fact a primary source. In section 4.3 I identify the morphological class forming the basis for the noun > verb reanalysis in (36), I show that object nouns of this class were identical to related infinitives in twelfth- and thirteenth-century southwestern English, and I show that lexical *do* was construed with such object nouns. These arguments satisfy the desiderata in (40a–b). In section 4.4, to satisfy (40c), I show that the habitual function of auxiliary *do* reflects the semantic interpretation of the relevant nouns construed with lexical *do*.

4.3   Do + *noun: morphology*

The reanalysis in (36) can only plausibly involve derivationally related noun–verb pairs. Pairs of two such types exist: one type consists of simplex nouns and denominal verbs based on them; the other consists of simplex verbs and the corresponding deverbal nouns. The change in (36) would therefore have amounted to one or both of the changes in (41).

(41) (a) Lexical *do* + simplex noun > habitual *do* + denominal infinitive
     (b) Lexical *do* + deverbal noun > habitual *do* + simplex infinitive

A *do* + noun > *do* + verb reanalysis is unlikely for OE: some accusatives and infinitives do have similar endings, but they are transparent. ME is the first period where confusion seems possible. Relevant here is a complex set of changes whereby ME inflectional endings were simplified or eliminated, final -*n* was lost as a morphological marker, and final short vowels were neutralized as -*e* [ə] and eventually lost (Minkova, 1991). During this series of changes, infinitives ending in

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[18] Ellegård (1953: 143–5) and O. Fischer (1992: 269) mention several reasons why, in their view, a *do* + noun > *do* + verb change is an unlikely source of periphrastic *do*. For example, they assert, such a change would have been inhibited by contexts where a nominal object of *do* could *not* have been interpreted as an infinitive. These include contexts where the object is modified, overtly plural, or separated from *do* in any way characteristic of nominal objects but not infinitives with auxiliaries. But arguments of this type predict the absence of any conditioned split in morphosyntactic change – a prediction which is obviously false. To take a significant parallel, systems of noun incorporation have arisen by the reanalysis of verb + bare noun sequences in some languages, and they have done so despite the existence of other contexts that might be expected to inhibit such a reanalysis. A specific objection raised by Ellegård is absurd: he writes that 'as long as the speakers did not know of *do* as a periphrastic auxiliary, the word placed after *do* must *ipso facto* have been felt as a noun' (1953: 144); but this implies that a condition for a change X > Y is that X should be 'felt' as Y, or in plainer terms that a change can occur only after it has occurred!

Table 1 *OE simplex nouns and denominal verbs*

	Simplex Accusative Noun	Denominal Verb – Weak Class 1
a.	coss 'kiss'	cyssan 'to kiss'
	dōm 'judgment'	dēman 'to judge'
	naman 'name'	nemnan 'to name'
	weorc 'work'	wyrcan 'to work'
b.	Simplex Accusative Noun	Denominal Verb – Weak Class 2
	andswaru 'answer'	andswarian 'to answer'
	hearm 'harm'	hearmian 'to harm'
	lufe 'love'	lufian 'to love'
	sealf 'salve'	sealfian 'to anoint'

-an and accusatives in *-V(n)* both ended in *-e* at a certain point. The details varied from dialect to dialect, but the key step was the loss of infinitival *-n* (Reed, 1950). In southwestern ME, this loss is first attested in the eleventh century, is common in thirteenth-century manuscripts, and is complete by the middle of the fourteenth century. Infinitive *-an* thus merged with accusative *-V(n)* during the approximate period when periphrastic *do* is first attested, in the dialect area where it is first attested and where it still retains its original habitual function.[19]

The first possibility to be assessed is the one in (41a): lexical *do* + simplex noun > habitual *do* + denominal infinitive. OE denominal verbs are virtually all class 1 or 2 weak verbs, with infinitive endings *-an* and *-ian* continuing PGmc endings of the shape *-(V)jan*. A few typical OE pairs of simplex nouns and denominal verbs are listed in table 1. Note that class 1 infinitives (table 1a) typically have root vowel umlaut caused historically by the Proto-Germanic glide. Even after the merger of *-V(n)* endings, class 1 infinitives would thus have differed crucially from their nominal bases and would not have permitted the noun–verb reinterpretation in (41a).

The *-i-* of the class 2 infinitive ending *-ian* (table 1b) was eventually lost in most ME dialects and the modern standard language, but not in all dialects. In dialects where the vowel was not lost, crucially including the southwestern dialect, *-an* infinitives yielded forms in *-e* but *-ian* infinitives yielded forms in *-ie* [iə].[20] The ME forms in (42a–b), cited from a fourteenth-century text in a southern West Midland

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[19] Ellegård (1953: 146) and O. Fischer (1992: 269) suggest that if periphrastic *do* continues lexical *do* it ought to have developed first in northern dialects, where accusatives and infinitives merged long before they merged in southwestern dialects. Yet the preconditions for a change may exist indefinitely. The merger of some accusatives and infinitives, while necessary for the development proposed here, does not entail that development any more than the existence of *s* in a language entails a sound change *s > h*.

[20] I am grateful to F. R. Higgins for calling to my attention the significance of this fact (*per litteras* 7/92). As he reminds me, the survival of *-i-* provides the only plausible source of the remarkable southwestern intransitive verb ending *-y* found in the forms *jumpy* and *whippy* quoted from Barnes in section 3.1. On this form see Elworthy (1875: 21–2), J. A. H. Murray in Elworthy (1877: 49n2), *OED* (s.v. *-Y* suffix²), Gachelin (1991), and Higgins (1992a).

dialect (*Piers Plowman* C), show the regular development of *-an* and *-ian* infinitives respectively.

(42) (a) OE > ME
  drincan > drynke 'to drink' (v 9)
  slæpan > slepe 'to sleep' (v 9)
  wendan > wende 'to go' (7b/4)

(b) OE > ME
  erian > erye 'to plough' (viii 2, 66)
  lufian > louye 'to love' (viii 218)
  wēodian > wedy 'to weed' (viii 66)

In early southwestern dialects of ME, where infinitives like those in table 1b and (42b) would not have resembled accusatives, class 2 weak verbs could not have participated in the reanalysis in (36). I conclude that the *do* + noun > *do* + verb change in (41a) could not have involved more than a few isolated denominal verbs.[21]

The remaining possibility is shown in (41b): lexical *do* + deverbal noun > habitual *do* + simplex infinitive. Germanic and OE deverbal nouns belong to various morphological classes (Hinderling, 1967; Krahe & Meid, 1967; Bammesberger, 1990). Some are characterized by suffixes with tangible modern reflexes, including not only living morphemes but debris like *-d* in *flood* (PGmc *flō-ðu-* < PIE *plō-tu-*; cf. *flow* < OE *flōwan*); in such cases the reanalysis in (41b) would be impossible. In other cases, phonological erosion and levelling had largely obscured the derivational morphology of OE and ME deverbal nouns. Deverbal nouns in **-i-*, **-ō-*, and **-a-* are shown in table 2a–c respectively. Even after the ME merger of *-V(n)* endings, accusative deverbal nouns like *bund* and *sang* in table 2c could not have been reinterpreted as their base infinitives. But *helpe* in table 2b could have been, as could most other deverbal *ō*-stem nouns based on infinitive stems: schematically, a noun **STEM-ō-m* > STEM-*e* was reanalyzed as an infinitive STEM-*e* < STEM-*an* < **STEM-ana-*. Some deverbal nouns in other classes would have permitted this reinterpretation as well. For instance, umlaut left many *i*-stem nouns (e.g. *cwide* in table 2a) distinct in root vocalism from their base verbs, but in other cases (e.g. *drepe*) it restored noun–verb stem identity.

Unlike (41a), therefore, (41b) is formally plausible: one of the morphological devices used to derive English nouns from verbs is now descriptively a zero suffix, and many unsuffixed nouns share the root vocalism of their base verbs. Southwestern EME had a large number of identical pairs of verbs and deverbal nouns, from among which I propose to identify the particular class involved in the creation of habitual *do*. Since the change in (41b) is plausible only for nouns whose base verbs mean roughly 'to do' the noun, the meanings of unsuffixed deverbal nouns must be considered. Drawing on Kastovsky (1968, 1985) and Lee (1948), I divide unsuffixed deverbal nouns into three main groups.

One group contains nouns that correspond notionally to nonresult arguments or

[21] This vitiates Rissanen's (1991: 336) claim that resultative *do* + adjective may have played a role in the creation of periphrastic *do*. It is true that 'to make warm' means 'to warm', but as illustrated by the OE adjective–verb pairs he cites, deadjectival verbs were weak: class 1 *hælan* 'to save' (*hāl* 'safe'), *wærman* 'to warm' (*wearm* 'warm'); class 2 *cwician* 'to make alive' (*cwic* 'alive'), *hluttrian* 'to make clear' (*hluttor* 'clear'). Among Rissanen's examples only the pair of *riht* 'straight' and *rihtan* 'to straighten' could be relevant.

Table 2 *OE simplex verbs and deverbal nouns*

	PGmc Infinitive	PGmc Accusative	OE Infinitive	OE Accusative
a.	*drep-ana-	*drap-i-m	drepan 'to slay'	drepe 'slaying'
	*drenk-ana-	*drunk-i-m	drincan 'to drink'	drync 'drink'
	*kweþ-ana-	*kwed-i-m	cweþan 'to speak'	cwide 'speech'
b.	*help-ana-	*help-ō-m	helpan 'to help'	helpe 'help'
	*reid-ana-	*raid-ō-m	rīdan 'to ride'	rāde 'riding' (> road)
	*sak-ana-	*sak-ō-m	sacan 'strive'	sace 'strife'
c.	*bend-ana-	*bund-a-m	bindan 'to bind'	bund 'bundle'
	*feht-ana-	*feht-a-m	feohtan 'to fight'	feoht 'fight'
	*sengw-ana-	*sangw-a-m	singan 'to sing'	sang 'singing' (> song)

adjuncts of their base verbs. OE examples are *bytla* 'builder' (*bytlan* 'to build'), *drǣge* 'dragnet' (*dragan* 'to draw, drag'), *drinc* 'drink' (*drincan* 'to drink'), and *ingang* 'entrance' (*ingangan* 'to enter'). Because such nouns could not have functioned as the objects of lexical *do*, they could not have formed the basis for the change in (36/41b), and they will not be considered further here.

Unsuffixed deverbal nouns in a second group denote the concrete results of their eventualities. OE examples are *delf* 'what is dug' (*delfan* 'to dig'), *stenc* 'stench' (*stincan* 'to emit a smell'), and *geweorp* 'heap' (*geweorpan* 'to throw'). Since these nouns by definition denote results, they could occur as objects of lexical *do* in the construction in (33). And since causing the result of an action is doing that action, lexical *do* with a deverbal result noun is at least roughly equivalent to the noun's base verb. It is thus possible in principle that lexical *do* construed with result nouns is a source of auxiliary *do*. But as discussed in note 25 below, such collocations probably played no more than a minor role in the development in (36/41b).

The third group contains ACTION NOUNS, also called EVENT or PROCESS nouns.[22] Deverbal action nouns generally belong to different morphological classes, including the class in *-ing* and the unsuffixed class. Several OE examples appear in table 2; other unsuffixed examples are *faru* 'journey' (*faran* 'to go; to journey') and *rǣd* 'reading lesson' (*rǣdan* 'to read'). I propose that the change in (36/41b) was based on contexts where a bare singular unsuffixed deverbal action noun was the object of lexical *do*. This change, shown in (43), imposes the requirements in (44).

(43) (a) SOURCE: [$_{IP}$ NP$_{AGENT}$ [$_{VP}$ do [$_{NP}$ deverbal action N] ...]]
    (b) REINTERPRETED AS: [$_{IP}$ NP$_{AGENT}$ do [$_{VP}$ V ...]]

(44) (a) A suitable array of deverbal action nouns must have been identical with their base verbs in southwestern EME.
    (b) Lexical *do* must in fact have occurred with such nouns.

Individual ME deverbal action nouns may fail to satisfy (44a) for several reasons:

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[22] Strictly speaking, a fourth class should include deverbal STATE nouns like OE *steorfa* 'mortality' (*steorfan* 'to die'). But since such nouns cannot be 'done', with lexical *do* they can only be interpreted as results. And because causing a state is not the same as being in it, state nouns with *do* would not generally have been reinterpreted as their base verbs.

some show umlaut or other root differences from their base verbs, or are built to *-ian* verbs; some have unattested base verbs that may not have existed in ME; and some are not inherited from OE (or are accidentally unattested) and may not have entered southwestern ME early enough. Excluding such cases, the ME noun–verb pairs in table 3 would have formed a suitable basis for the creation of auxiliary *do*; each verb means roughly 'do' the noun. This list is conservative, limited by many accidents of attestation. Southwestern ME inherited other similar pairs, even if not all of them can be confidently identified; others were created prior to the change in (43), both by French and Scandinavian borrowing and by internal changes like noun–verb vocalism levelling. Examples of (eventual) levelling include *kiss*, *name*, and *work* in table 1a, as well as the rhyming descendants of OE *cuman* 'come' and *cyme* 'coming' in (45).

> (45) c1275 (c1200) *Owl & N* (Clg) 434–36
> Ech wiȝt ... blisseþ hit wanne ich cume, & hiȝteþ aȝen mine kume
> 'Each creature rejoices when I come, and looks forward to my coming'

The nouns in table 3 thus satisfy the requirement in (44a): they form a morphologically and semantically well defined class.[23]

The requirement in (44b) is that lexical *do* must actually have occurred with bare action nouns like those in table 3. Certainly it occurred with other action noun NP types, such as the complex NPs in (46) and the bare compounds in (47).

> (46) (a) c1300 (?c1225) *Horn* (Ld) 720–21
> Do him out of þi londe Her he do more schonde
> 'Expel him from your land before he commits further outrage'
>
> (R. Allen, 1984: 376)
>
> (b) a1325 (c1250) *Gen & Ex* (Corp-C) 3925–26
> And bad him cumen for to don Fol[c] of ysrael his cursing on
> 'And [Balak] bade him come to do his cursing on the people of Israel'
>
> (47) (a) c1275 (c1200) *Owl & N* (Clg) 1733–34
> Hunke schal itide harm & schonde ȝef ȝe doþ griþbruche on his londe
> 'To you will come harm and disgrace if you do peace-breach in his land'
>
> (b) a1325 (c1250) *Gen & Ex* (Corp-C) 2463–66
> And sum euerilc wurðen ger, Ðor-quiles ðat he wunen her, Don for ðe dede
> chirche-gong, Elmesse-gift and messe-song
> 'And some, each passing year that they live here, do church-going, alms-giving,
> and mass-singing for the dead'

Unsuffixed nouns like those in table 3 are a morphologically defined subclass of the action noun type illustrated in (46–47); they are not semantically distinctive. It would be surprising if they did not occur with lexical *do*, and examples can indeed be cited from texts. Two such examples from the list in table 3 appear in (48).

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[23] Its historical nucleus may be the deverbal $\bar{o}$-stem class illustrated in table 2b. Action noun formation was among the PIE functions of this class, as shown by Greek nouns in $-\bar{e} < *-\bar{a}$ (= PGmc $*-\bar{o}$): $ark^h-\acute{\bar{e}}$ 'beginning' (ark^h-ein 'to begin'); $loib-\acute{\bar{e}}$ 'pouring' ($leib-ein$ 'to pour'); $p^hug-\acute{\bar{e}}$ 'flight' ($p^heug-ein$ 'to flee'); $spoud-\acute{\bar{e}}$ 'haste' ($speud-ein$ 'to hasten'); $trop-\acute{\bar{e}}$ 'turning' ($trep-ein$ 'to turn') (Chantraine, 1979: 18–26). The archaic status of the pivotal construction in (43a) cannot be doubted: cf. e.g. Latin *fugam facere* 'to take flight', with cognates both of *do* and of the deverbal $\bar{o}$-stem class.

Table 3 *ME verbs and unsuffixed deverbal action nouns*

Accusative Action Noun	Base Infinitive
burste 'breaking; injury'	bursten 'to break; to violate; to injure'
chīde 'quarreling'	chīden 'to quarrel'
fare 'the making of one's way from place to place; bustling or noisy activity'	faren 'to travel; to proceed (to or with an action), continue (in an activity)'
fighte 'action of fighting'	fighten 'to fight'
gange 'a going; a journey'	gangen 'to go'
gife 'the action of giving'	gifen 'to give'
hēle 'concealment'	hēlen 'to conceal'
helpe 'assistance'	helpen 'to help'
knille 'tolling'	knillen 'to ring'
mete 'the action of measuring'	meten 'to measure'
pleie 'merriment, revelry'	pleien 'to play'
reste 'repose, intermission of labor'	resten 'to rest'
rīpe 'reaping'	rīpen 'to reap'
slēpe 'sleep'	slēpen 'to sleep'
springe 'the action of rising or springing'	springen 'to spring'
steppe 'the action of stepping'	steppen 'to step'
swenche 'affliction, labor, toil'	swenchen 'to trouble, harass, afflict'
swenge 'fighting, battle'	swengen 'to strike'
swinke 'physical labor'	swinken 'to engage in physical labor'
tyhte 'training'	tyhten 'to train'
wraþþe 'anger displayed in action'	wraþþen 'to exhibit anger, to afflict'
yelpe 'boasting'	yelpen 'to boast'

(48) (a) a1325 (c1250) *Gen & Ex* (Corp-C) 1985–86
        Ðor was in helle a sundri stede Wor ðe seli folc reste dede
        'There was in hell a separate place where the happy people rested'
     (b) a1325 (c1250) *Gen & Ex* (Corp-C) 3668
        And he ðe sulen don helpe at ned
        'And he shall help you at need'

Comparable examples can also be found with later additions to the class of nouns in table 3. Those shown in (49) have the French loanword *sacrifice*, an action noun which coexists with an identical verb.

(49) (a) a1325 (c1280) *SLeg. Pass.* (Pep) 1765–66
        Me sholde eche ȝer þulke tyme sacrifise do Of a lomb þat clene wer
        'At this time each year I was supposed to sacrifice a lamb that was pure'
     (b) (c1390) Chaucer *CT KnT* A 2252–53
        And on thyn auter, where I ride or go, I wol doon sacrifice and fires beete
        'And on your altar, wherever I ride or go, I will sacrifice and light fires'
     (c) (c1390) *CT Pard.* C 467–70
        They daunce and pleyen at dees bothe day and nyght, And ete also and drynke
        over hir myght, Thurgh which they doon the devel sacrifise Withinne that
        develes temple

The particular context in (48) – *do* plus a bare noun from table 3 – is admittedly uncommon, but the same is true of auxiliary *do* in its early stages (whether analyzed as 'periphrastic' or habitual). Examples like (48–49) exist in what is after all an exiguous corpus, and I see no reason to doubt that the type was robust enough to spawn habitual *do*. Note that all the examples in (48–49) have habitual contexts except (48b), where the adverbial expression *at ned* imparts a generalizing force.

In sum, there was an adequate formal basis for the change in (43). The source construction was uncommon, as was the initial resulting construction, but at least as a dialectal habitual auxiliary it has snowballed.[24]

4.4 Do + *noun: semantics*

It is not enough to identify a formal context where habitual *do* may have originated, for instance the pivotal sentence type in (48–49). Habitual function itself must also be explained as a consequence of the meaning of the *do* + noun construction. Two of its features seem relevant.

The first is that the noun in this construction already has some of the semantics of an ordinary verb. This is easy to see in an eventuality-based semantic notation (Davidson, 1967, 1985; Dowty, 1989; Parsons, 1990). Ignoring tense, simple sentences are represented as in (50).

(50) A cat caught a mouse.
$\exists x,y[cat(x) \wedge mouse(y) \wedge \exists e[catch(e) \wedge \text{AGENT}(e,x) \wedge \text{PATIENT}(e,y)]]$

According to (50), there is a catching event whose Agent is a cat and whose Patient is a mouse. As shown in (51a), manner adverbials can be represented as predicates of eventualities (McConnell-Ginet, 1982); a similar analysis for cognate objects appears in (51b).

(51) (a) ... dyde arleaslice 'acted impiously' (32a): $\lambda x \exists e[do(e) \wedge \text{AGENT}(e,x) \wedge impious(e)]$

   (b) ... die a guiltless death (cf. Shakespeare, *Othello* 5.2.122)
   $\lambda x \exists e[die(e) \wedge \text{THEME}(e,x) \wedge \lambda y[guiltless(y) \wedge die(y)](e)]$
   $= \lambda x \exists e[die(e) \wedge \text{THEME}(e,x) \wedge guiltless(e)]$

This reflects the traditional view that cognate objects are 'used ... to add a descriptive or qualifying trait, which could not conveniently be joined to the verb in the usual way' (Jespersen, 1927: 235).

What lexical *do* contributes to sentence interpretation is to identify its subject as the Agent of an eventuality of doing (Ross, 1972; Dowty, 1979). Its object names the

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[24] This account might receive further support if the verbs actually attested with habitual *do* tended to have action nouns based on them. A survey of the habitual examples cited in the Appendix yields uncertain results. In a number of cases the verbs do coexist with action nouns in ME; but some of these verbs are borrowings, and the action nouns derived from others are either unattested or crucially different in root vocalism in OE. It may be easiest to assume that habitual *do* was already, in its earliest attestations, used with any verbs regardless of their nominal affiliations.

action, not a participant, and can be represented like a manner adverbial or cognate object modifier. This is shown in (52).

(52) Suikes ... diden ... wunder 'Traitors acted atrociously' (cf. 35b)
∃x[traitors(x) ∧ ∃e[do(e) ∧ AGENT(e,x) ∧ atrocity(e)]]

Transitive *do* is thus semantically intransitive, as it were. Objects like *wunder* 'atrocity' in (52) are interpreted not as individual terms but as properties predicated of eventualities.

From this perspective, the change in (43) is a simplification. If an action noun 'contributes to logical form *exactly the same* predicate of events as the verb from which it is derived' (Parsons, 1990: 129), then *do* + action noun predicates can be represented as in (53).

(53) (a) don ... cursing 'do cursing' (cf. 46b): λx∃e[do(e) ∧ AGENT(e,x) ∧ curse(e)]
     (b) don helpe 'do help' (48b): λx∃e[do(e) ∧ AGENT(e,x) ∧ help(e)]

In these representations *do* is redundant, since cursing and helping are special cases of doing. A representation which omits 'do(e)' is logically equivalent. In effect, as objects of lexical *do*, bare action nouns are semantically already verbs.[25]

Yet action noun objects are not entirely identical to verbs: they are a species of NP. From this arises the second relevant semantic feature of the *do* + noun construction, and the one underlying the aspectual change. In its broadest context, this is part of the diachronic typology of bare object constructions. According to Hopper & Thompson (1984: 711), bare objects often 'signal on-going, imperfective, or generic activities' in which 'no specific entity, but instead the general or sortal class of such entities is involved'. One reason may be argument structure. Citing a 'greater possibility of argument reduction' with action nouns, Koptjevskaja-Tamm (1993: 270) writes that 'analytical constructions allow subjects and objects to be deleted in situations where these are generic or indefinite'.[26]

In studying the aspectual interactions of nouns and verbs, it is convenient to have a cover term such as CUMULATIVE REFERENCE (Quine, 1960) for the property shared by atelic verbs and mass nouns. This is defined as follows by Krifka (1992: 30): 'whenever there are two entities' to which a predicate with cumulative reference applies, it 'applies to their collection'. Bare deverbal action nouns typically have

[25] In the terms used by Hopper & Thompson (1984), bare action nouns have some 'prototypical' verb properties. Note that a change like (43) but involving deverbal result nouns is not a semantic simplification. Consider *geweorpan* 'to throw' and *geweorp* 'heap': making the relevant sort of heap does entail throwing, but a heap does not necessarily result from any eventuality of throwing, since scattering stuff here and there may also be a type of throwing. Therefore I ignore the *do* + result noun construction as a primary source of auxiliary *do*. Similar reasoning applies to Ellegard's (1953: 143–4) argument that *make* + noun means something like *do* + noun but yielded no auxiliary, and that *do* + noun would therefore not have yielded an auxiliary *do*. In fact *do* and *make* crucially differ in that objects of *make* denote results but not actions; an auxiliary *make* would therefore not be expected.

[26] Cf. Declerck (1986: 187): 'Sentences that are generic in the sense of "habitual" always fail to represent the number of occasions as bounded ... [I]t is precisely this lack of boundedness that brings the generic interpretation about: if the number of occasions is not bounded, the sentences will automatically yield a generic interpretation, unless this is blocked for some pragmatic reason.'

cumulative reference; they denote undifferentiated stuff of particular kinds of action. For ME, this interpretation is seen in (46a) and (54a–b).

(54) (a) c1330 (?a1300) *Tristrem* 2644
He set his lond in pes, Þat arst was ful of fiȝt
'He made his land peaceful, which at first was full of fighting'

(b) (c1300) *Havelok* 2337–39
Þer was so mike yeft of cloþes Þat, þou I swore you grete othes, I ne wore nouth þer-offe trod
'There was so much giving of clothes ['i.e. to minstrels' (Smithers, 1987: ad loc.)] that, though I swore you great oaths, I was not credited for it'

The expressions *ful of* and *so mike* 'so much' in (54a–b), and *more* in (46a), show that *fiȝt* 'fighting', *yeft* 'giving', and *schonde* 'outrage' respectively have cumulative reference.

Modern verbal nouns ending in *-ing* are aspectually similar to the deverbal action nouns in (54), and they enter into a construction which resembles the OE and ME *do* + unsuffixed action noun construction. The illustrative quotations in *OED* include at least 236 examples where *do* has a direct object headed by a verbal noun ending in *-ing*. In 84 cases, a cumulative-reference interpretation is enforced by a modifier or similar expression.[27] Two examples appear in (55). The suggestion in (55a) is that each plane may have dived several times; at any rate an unspecified number of dives is involved (for each plane).

(55) (a) 1934 V. M. Yeates, *Winged Victory* iii. iv. 326 (*OED*)
The triplanes ... did some diving at the splitarsing Camels but didn't hit anyone.

(b) 1936 J. Steinbeck, *In Dubious Battle* vii. 109 (*OED*)
The health authorities are going to do plenty of snooping.

The verbal noun is definite in 74 cases. About 50 of these have a habitual context, as in (56).

(56) 1877 Mrs. Forrester, *Mignon* i. 64 (*OED*)
My nephew has done the gardening single-handed the last five years.

Many of the remaining definite examples explicitly highlight the duration or internal structure of the activity. In (57), this is accomplished by the progressive form *doing*.

(57) 1934 J. B. Priestley, *Eng. Journey* 220 (*OED*)
I am probably too conceited and dogmatic a person myself to make a good guidee. To be at ease, I ought to be doing the guiding.

Other examples of the *do* + verbal noun construction are of two structural types. In

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[27] Relevant expressions include *any (more)*, *no (more)*, *(a) little*, *a bit of*, *a lot of*, *considerable*, *more*, *much*, *plenty of*, *all*, *such*, and *some*. The material here is based on a computer search of post-eighteenth-century citations of forms of *do* followed within three words by a word ending in *-ing*. I ignored *have done X-ing* 'have finished X-ing' (but not *have done X-ing* 'have X-ed') as well as present-tense forms of *do*, where habitual force is natural for independent reasons.

32 cases the verbal noun is bare (or compounded, or modified only by descriptive adjectives, not determiners or quantifiers). Most such examples occur in habitual contexts, as in (58).

(58) 1954 E. Jenkins, *Tortoise & Hare* xii. 149 (*OED*)
A small suitcase ... was being repaired by the local iron-monger, who did saddle-stitching for the farmers.

All nonhabitual examples of this type have cumulative reference, as in (59), a sentence suggesting an indefinite quantity of bag-punching.

(59) 1927 *Daily Express*, 21 Sept. 1/2 (*OED*)
Dempsey jogged some miles along the road yesterday, did bag-punching, etc.

Compound verbal nouns are frequent in this construction type, which is therefore reminiscent of productive noun incorporation in other languages; cf. (35a) and (47a–b) for OE and ME. Finally, the construction *do one's (own) X-ing* occurs 46 times. More than half of these appear in habitual contexts, as in (60); cf. (46b) for ME.

(60) 1887 T. A. Trollope, *What I remember* ii. xix. 379 (*OED*)
I used ... to do all my writing standing; and I strongly recommend the practice to brother quill-drivers.

A notable feature of the *do* + verbal noun construction is the frequency of denominative verbal nouns, especially those based on agent or occupational nouns. Two examples are given in (61).

(61) (a) 1884 *Manch. Exam.* 17 Nov. 5/2 (*OED*)
He had a workshop wherein he did carpentering and joinering.
(b) 1890 *Sat. Rev.* 13 Sept. 314/1 (*OED*)
The German gendarmes should do their gendarming with more gentleness.

Such examples are of interest because of the well-known characteristic or habitual interpretation of agent nouns.

In sum, the *do* + verbal noun construction is mainly used in habitual and cumulative-reference contexts. Finite verbs can also be used in these contexts, of course, and the *do* construction can be used elsewhere. Its distribution may reflect the relative ease of argument stripping with deverbal nouns vis-à-vis finite verbs, but in any event it is a fact. If this is true of structurally comparable 'do' + verbal noun constructions in general, as is likely, then a diachronic prediction arises. Such constructions should evolve (variously, or in different languages) into habitual aspect markers and imperfective aspect markers.

This prediction is confirmed by typological evidence. The ME creation of habitual *do* proposed here is one relevant case, but there are others. For example, the Micronesian language Ponapean has a preverbal aspect marker *wie* with imperfective function, as in *E wie doadoahk* 'he is working' (*doadoahk* = 'to work'). This is etymologically the verb 'do': the *wie* + verb construction continues a 'do' + incorporated-noun construction of the type in *E wie mwangas* 'he made copra'

(*mwangas* = 'copra'). Such a development was possible because most intransitive verbs in Ponapean also function as nouns (e.g. *doadoahk* = 'work').[28]

Comparanda also appear in numerous West Germanic dialects, where cognates of English *do* have a variety of functions. Keseling (1968) and Erben (1969) survey some of the data, limited in many cases to brief remarks in morphological descriptions. For Low German, imperfective aspect is explicitly described by Grimme (1922: 126), who cites the apparently habitual example in (62).

(62) Sei   dain   em   Nats om   heitn.
they do (PAST.3PL) him (DAT) Nats PTCL call (INF)
'They used to call him Nats.'

Auxiliary *tun* describes 'a series of operations' in the Alsatian dialect of Colmar (V. Henry, 1900: 100–1); in the Bohemian dialect of Gottschee it expresses 'the duration or the repetition of an action', and may be translated 'for a long time or repeatedly' (Tschinkel, 1908: 305). Finally, in a recent study, Cornips (1994) discusses the habitual auxiliary *doen* in the Dutch dialect of Heerlen. An example (Cornips, 1994: 289) is given in (63); cf. (61a)!

(63) Ik ben gewoon timmerman en ik doe timmeren en opbouwen.
'I'm usually a carpenter and I hammer and build.'

According to Behaghel (1924: 361–3), the German *tun* + infinitive construction continues an earlier *tun* + action noun collocation. This is shown by the aspectual properties of the *tun* + infinitive construction: the earliest examples have habitual or activity predicates, precisely the predicate types whose infinitives were first used as action nouns (Behagel, 1924: 356). But since infinitives were already action nouns in the oldest attested German dialects, a reanalysis along the lines of (43) would have been straightforward at any point. Therefore the German (and Dutch) developments are independent of any ME change: similar morphosyntactic ingredients have motivated parallel innovations.

A further parallel suggested by the Ponapean change is noun incorporation, the process whereby (e.g.) object nouns are compounded with (or attached to) their governing verbs. This involves no 'do', but it is the paradigm case of bare objects reinterpreted as parts of the verb. This is exactly what I propose happened in the creation of habitual *do*, which can thus be seen as a case of diachronic noun incorporation. The English result differs from the usual noun incorporation outcome, but the mechanism of change is similar. It is significant that noun incorporation has a typical range of interpretations like the habitual and cumulative-reference interpre-

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[28] I hope to discuss the Ponapean change in more detail elsewhere; for the data see Rehg (1981) and Rehg & Sohl (1979). Another relevant comparison is an Irish 'do' + verbal noun construction, used 'to achieve a partitive or "indefinite" effect' (Ó Siadhail, 1989: 304); note that because this construction is not habitual, and uses a verbal noun, it cannot be connected with Hiberno-English habitual *do*. A final comparison, though it does not involve a 'do' + verbal noun construction, is the use of partitive object case-marking to mark imperfective aspect. Thus, in Finnish, *Hän kirjoitti kirjeet* 'he wrote the letters' has an accusative direct object, but *Hän kirjoitti kirjeitä* (with a partitive object) can mean 'he wrote some letters' or 'he was writing the letters' (Kiparsky, 1998: 272).

tations of the English *do* + verbal noun construction (Mithun, 1984). So Dixon (1988: 49) writes that incorporated objects in Fijian give rise to 'an indefinite, general meaning'; two examples from a text (Dixon, 1988: 306) appear in (64).

(64) me+ra   vuli.me'e to'a me+ra   laga.me'e to'a i+na   vei-.siga.
     then+they learn.song ASP then+they sing.song ASP in+ART COLL-day
     'Then they learned songs, and sang songs every day.'

The compound verbs *vuli.me'e* 'learn songs' and *laga.me'e* 'sing songs' in (64) are formed by noun incorporation, and occur in a habitual context ('every day').

In this typological context the proposed ME change in (43), lexical *do* + noun > habitual *do* + infinitive, is quite plausible. An aspectual property originally contributed by the bare nominal object has been reinterpreted as a feature of the finite verb. This also yielded what could be called the canonical distribution of lexical and functional information: an auxiliary in I^0 carries the aspectual burden, and the lexical burden is carried by a verb in VP.[29]

5   Habitual and periphrastic *do*

Where did periphrastic *do* come from? I have described two other EME auxiliary-like uses of *do*, a habitual use (sections 3–4) and an ellipsis use (section 2.3), and I have mentioned the view that the periphrastic use was extended from the ellipsis use. I suggest instead that periphrastic *do* reflects a merger (as it were) of the habitual *do* + infinitive and *do* + $\varnothing$ ellipsis constructions. In some contexts habitual *do* was reinterpreted as nonhabitual, and the result was treated as an extension of the *do* + $\varnothing$ construction to overt-infinitive contexts. This could be viewed as a generalization of the ellipsis use of *do*, with statements of the grammatical change itself referring only to the ellipsis use; but the habitual use furnished the pivotal *do* + infinitive sequences. Here I will briefly discuss the reinterpretation of these pivotal sequences as periphrastic.

The English verb has a basic opposition between an imperfective category marked by the *be* + participle construction and a category marked by two complementary constructions, the simple verb and the *do* periphrasis. Since the second category marks perfective aspect and habitual aspect, it would be natural for its realizations to include the reflex of a habitual construction (or a perfective construction, as on Denison's account in section 2.3). But if so, in the merger of perfective and habitual aspect categories, marked respectively by the simple verb and the *do* periphrasis, why has the originally habitual form been retained in its particular (i.e. *do*-support) contexts? Why has this merger taken this surface form? An obvious factor is the

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[29] An argument against this analysis, suggested by a referee, is that many or even most *do* + noun collocations (e.g. *do homage*) do not give rise to habitual or imperfective interpretations. But the analysis proposed here relies specifically on a particular crucial context – *do* + unmodified deverbal nomen actionis – where a habitual interpretation does arise naturally. As argued *mutatis mutandis* in note 18 above, the existence of other *do* + noun collocations is irrelevant. (I regret that I was unable to use Brinton, 1998, in the preparation of section 4.4.)

auxiliary system as a whole: *do* belongs to a class of verbs which pattern together syntactically, and the patterned behavior of the class is certainly responsible for much of the behavior of *do*. Here I will suggest another factor (one of many) which may have helped push *do* into the class of auxiliaries.

The relevant additional factor would occur only in some of the contexts for periphrastic *do*, not all of them. Irrelevant contexts include EMPHATIC *do*, as in (65a). Some related contexts are also shown for completeness: VP preposing in (65b) and, in (65c), the modern counterpart of the ellipsis construction described for OE and ME in section 2.3.

> (65) (a) 1929 J. B. Priestley, *Good Companions* iii. ii. 515 (*OED*)
> You'd never see him if you hadn't an intro, but when you do see him, 's'business.
> (b) a1849 Poe, *Tales, X-ing a Paragrab* (*OED*)
> 'I shell have to *x* this ere paragrab', said he to himself, as he read it over ... So *x* it he did, unflinchingly ...
> (c) 1934 E. O'Neill, *Days without End* ii. 68 (*OED*)
> But I warned him he'd humiliate me once too often – and he did!

There is clearly a connection between the uses of *do* in (65) and its polarity question use, discussed below, but I will not explore this here. Indeed, I have nothing original to say about emphatic *do* or its relation to VP ellipsis contexts and other *do*-support contexts (or about *do* in certain other contexts, e.g. with imperatives and non-negative inversion).

Negation and inversion are the *do*-support contexts I will briefly consider here, and I begin with negation. Negative elements triggering *do*-support include sentential *not*, as in (1a) and (66a), and certain preposed negatives and quasi-negatives, as in (1c) and (66b).

> (66) (a) 1936 W. Faulkner, *Absalom, Absalom!* vii. 222 (*OED*)
> He didn't listen to the vague and cloudy tales of Tidewater splendor that penetrated even his mountains.
> (b) 1976 *Biblical Archeologist* XXXIX. 47/2 (*OED*)
> Only under Naram-Sîn did Akkad recover well enough to defeat the Eblaites and finally to destroy Ebla itself.

I suggest that the interaction of negation and habituality caused the reinterpretation of habitual *do* as nonhabitual periphrastic auxiliary. The sentences in (67) will serve as a basis for discussion.

> (67) (a) 1880 'Mark Twain', *Tramp Abroad* 614 (*OED*)
> A ... sorely tried American student ... used to fly to a certain German word for relief when he could bear up under his aggravations no longer ... This was the word *Damit*.
> (b) 1904 'Saki', *Reginald* 90 (*OED*)
> A mouse used to cake-walk about my room.

In a quantificational semantics with the generic operator 'GEN', the sentences in (67), modified, can be represented as in (68).

(68) (a) You used to say *Damit* when you lived in Leipzig.
          GEN [you lived in Leipzig] → [you said *Damit*]
     (b) Squeak used to cake-walk about my room.
          GEN ... → ∃e[cake-walk(e) ∧ AGENT(e,Squeak) ∧ ABOUT(e,my room)]

What (68a) says is that generally, in situations where you lived in Leipzig, you said *Damit*. In the eventuality notation of section 4.4, (68b) says that generally, in the appropriate (contextually determined) situations, Squeak cake-walked about my room. Compare the episodic sentence in (69).

(69) Squeak cake-walked about my room.
     ∃e[cake-walk(e) ∧ AGENT(e,Squeak) ∧ ABOUT(e,my room)]

This says only that a certain event occurred, not that such events were general or characteristic.

Turning now to negative contexts, consider the habitual sentences in (70), which are represented on one interpretation as in (71).

(70) (a) You didn't use to say *Damit* while you lived in Leipzig.
     (b) Squeak didn't use to cake-walk about my room.
(71) (a) (70a): NOT [GEN [you lived in Leipzig] → [you said *Damit*]]
     (b) (70b): NOT [GEN ... → ∃e[cake-walk(e) ∧ AGENT(e,Squeak) ∧ ABOUT(e,my room)]]

The representation in (71a) says it is not the case that you generally said *Damit* while you lived in Leipzig, and the one in (71b) denies that Squeak generally cake-walked about my room. Yet these are not the only possible interpretations of (70a–b). As Krifka et al. (1995: 123) note, '*Cows do not eat nettles* can mean either that cows do not have the habit of eating nettles, or that they have the habit of not eating nettles (that is, in situations that contain nettles, they do not eat them).' The second interpretation is an instance of the general phenomenon of NEG-RAISING, 'the availability of a lower-clause reading or understanding for a higher-clause negation' (Horn, 1989: 308), which also arises when negation and modality interact. For the sentences in (70), NEG-raising yields interpretations as in (72).

(72) (a) (70a): GEN [you lived in Leipzig] → NOT[you said *Damit*]
     (b) (70b): GEN ... → NOT[∃e[cake-walk(e) ∧ AGENT(e,Squeak) ∧ ABOUT(e,my room)]]

Habituality has wide scope in (72a–b), which say that certain eventualities generally did not occur (rather than merely denying as in (71) that they generally did occur). Horn (1989: 328–30) argues that NEG-raising is one case of a generalization that '[c]ontrary negation tends to be maximized in natural language', and that its interpretation always 'applies to a proper subset of the situations in which the contradictory applies'. Hence (72a–b) respectively entail (71a–b), but not vice versa. Pragmatic inference, according to Horn, is responsible for the fact that 'a formally contradictory negation **not p** [as in (71)] will tacitly convey a contrary assertion [as in (72)]' (p. 361).

Now compare the episodic sentence in (73) to the wide-scope habitual interpretation of (70b), as represented in (72b).

(73) Squeak didn't cake-walk about my room.
NOT[∃e[cake-walk(e) ∧ AGENT(e,Squeak) ∧ ABOUT(e,my room)]]

What (73) says is that there was no cake-walking, while (72b) says there was generally none. The difference is just the difference between 'always' and 'habitually', or between universal and generic quantification, which is far smaller than the difference between 'habitually' in (68b) and '(at least) once' in (69).

Periphrastic *do* may thus have arisen naturally from the interpretation of habitual *do* in negative contexts. Negative habitual sentences, construed as in (72) as assertions of general nonexistence, were strengthened to become assertions of nonexistence – just like negative episodic sentences as in (73). This is sketched in (74): 'not habitually' becomes 'habitually not', which is close to 'not'.

(74) NOT[GEN p] > GEN[NOT p] > NOT p

This shift stripped *do* of its habitual force, creating a periphrastic auxiliary. Note that if NEG-raising interpretations do indeed arise via pragmatic inference, as Horn suggests, then the creation of periphrastic *do* in negative contexts is the result of inference conventionalization, which is a widely accepted mechanism of semantic change (see e.g. Hopper & Traugott, 1993).

Questions are the remaining relevant *do*-support context. Note that both polarity questions and sentential negation license negative polarity elements in their scope. For polarity questions this is illustrated with *ever* in (75).

(75) a1834 Coleridge in Patmore, *Friends & Acquaint.* (1854) i. 89 (*OED*)
'Pray, Mr. Lamb, did you ever hear me preach?' 'Damme', said Lamb, 'I never heard you do anything else.'

An account of negative polarity which can be applied naturally to questions is that of Baker (1970a and b), Borkin (1971), and Linebarger (1987); cf. Ladusaw (1996). Linebarger's analysis can be summarized as follows: negative polarity elements appear either in the scope of overt negation or in sentences which implicate or 'make *allusion* to some other sentence or sentences' (p. 346) satisfying the overt-negation requirement. The negative polarity element *any* can thus appear in (76a) because this sentence makes available the implicature in (76b), where *any* is in the scope of overt negation.

(76) (a) She persisted for years after she had any hope at all of succeeding.
(b) She persisted (even) when she didn't have any hope of succeeding.

In conditional clauses too, as shown in (77), negative polarity elements can appear.

(77) (a) 1940 Wodehouse, *Eggs, Beans & Crumpets* 103 (*OED*)
If ever I saw a baby that looked like something that was one jump ahead of the police ... it is this baby of Bingo's. Definitely the criminal type.
(b) 1949 *Natural Hist.* Nov. 417/3 (*OED*)

> If there are any 'Oscars' to be awarded in the world of animal acting, the vote of many naturalists will . . . go to the hognose snake.

Here, Linebarger (1987: 380) suggests, what licenses a negative polarity element is 'the possibility of NOT *P*' – e.g. in (77b) the possibility that there are no animal Oscars – 'or, more precisely, . . . the speaker's allusion to a belief that NOT *P* is possible'. This also correctly predicts that negative polarity elements can appear in polarity questions, which function to determine whether their corresponding statements or their negations are true; they are paradigm examples of 'allusion to a belief that NOT *P* is possible'. In short, negative polarity elements are licensed in negative contexts and contexts evoking them, including (crucially) polarity questions.

This evoked negation naturally interacts with habituality just as explicit negation does. A habitual polarity question is cited in (78).

(78) 1873 C. M. Yonge, *Pillars of House* II. xvi. 105 (*OED*)
      Did Alda use to be nice, or is it love?

The evoked negative possibility is given in (79), together with the NEG-raising interpretation this possibility implicates and the negative episodic interpretation this in turn approximates.

(79) (a) (78) raises the possibility:
          Alda didn't use to be nice = NOT [GEN . . . → [Alda was nice]]
      (b) In turn (79a) implicates: GEN . . . → NOT [Alda was nice],
          which can be further strengthened to: NOT [Alda was nice]

So, by a chain of inferences, a polarity question with habitual *do* evokes a negative nonhabitual statement. This is the strong interpretation of a 'no' answer to the question, contrasting with a 'yes' answer using habitual *do*. Unlike habitual statements, therefore, habitual polarity questions are associated (however question and answer sets are associated) with a set consisting of a positive habitual answer and a negative answer whose strong interpretation is nonhabitual. This association may have contributed to a loss of habitual function for *do* in polarity questions.

A similar argument is possible for *wh*-questions, where, however, negative polarity elements are perhaps limited to 'questions expecting negative responses' (Borkin, 1971: 56). A *wh*-question of this sort appears in (80a), and a *wh*-question suggesting that Borkin's limitation may be too strict appears in (80b).

(80) (a) 1933 *Archit. Rev.* LXXIV. 222/1 (*OED*)
          What newly erected buildings have now any 'empathetic' influence on those they contain?
      (b) 1899 Kipling, *Stalky* 172 (*OED*)
          What d'you take any notice of these rotters for?

The speaker in (80b) suggests only that the addressee should not take notice, not necessarily that the addressee does not do so. But whatever the details, negative evocations as in (80) are no doubt limited to a subset of *wh*-questions. It is here where auxiliary *do* may have first lost its habitual force.

I now summarize my proposal, whose preliminary nature I stress. A habitual > periphrastic change is unsurprising in negative polarity contexts, such as questions and overt negative contexts, because habitual interpretations approach or implicate episodic interpretations in these contexts. The syntactic reinterpretation triggered by this semantic overlap was arguably the central event in the development of the English verb system: it created the semantically empty *do* which occupies I^0 and C^0 in lieu of nonauxiliary verbs.

The chronological requirements of the proposed reinterpretation are supported by the data. In particular, 'periphrastic' *do* is attested as early in the crucial negative contexts as elsewhere. One example appeared in (26a), and another is given in (81).

(81) c1300 *SLeg.* (Ld) 198/23
    ʒwane we In godes seruise beoth we ne doz nouʒt ore ordre breke
    'When we are in God's service we do not break our order'

Ordinary sentential negation appears in (81), and preposed negation in (26a). Both examples are cited as habitual in section 3.4 and the Appendix, but for instance either interpretation in (82) might be appropriate for (81).

(82) (a) Habitual (NEG-raising) interpretation of (81):
        GEN [when we are in God's service] → NOT[we break our order]
    (b) Nonhabitual interpretation of (81):
        [when we are in God's service] → NOT[we break our order]

The ease of interpretations like (82b) lies behind the creation of nonhabitual periphrastic *do*.

The line of argument pursued in this section suggests a question about the distribution of *do*. If *do*-support was favored in negative polarity contexts, and if conditional clauses license negative polarity elements, as shown in (77), then they should also have favored the habitual > periphrastic change. Is there any evidence that conditional clauses pattern with negatives and interrogatives as contexts for periphrastic *do*?

In his account of the nineteenth-century west Somerset dialect, Elworthy (1877: 50 n. 2) asserts that *if I did dig* 'is really equivalent to *if I should dig*, i.e. pure hypothesis'. Elsewhere he elaborates (p. 63), writing that *did* or *did not* 'is often used for *would* or *would not*, or rather *were to*' and citing examples such as (83), given here in a standardized orthography.

(83) I didn't care neef it wouldn't be a couple of bushels.
    'I would not care if it was not above a couple of bushels.'

According to Elworthy (1877: 63), *I didn't care* 'is the usual form of "I would not care."' Though a similar use of *do* is not explicitly described by Barnes (1863, 1886) for the Dorset dialect, it is well attested in his dialect poetry. Two examples are given in (84).

(84) (a) If you do like, I'll treat ye wi' a ride In theäse wheel-barrow here
                                                        (Barnes, 1962: 1.329)
    (b) If I do zee'n, I'll jist wring up my vist An' knock en down   (Barnes, 1962: 1.96)

Based on his modern Somerset data, Ihalainen (1991: 155) asserts that 'there is a specific context where only *do* [i.e. not *used to* or *would*] seems to occur. Older varieties of English would show the subjunctive here.' A direct comparison with Elworthy's data is impossible, since the examples Ihalainen cites all occur in habitual contexts, but a nonhabitual unemphatic use of auxiliary *do* in conditional clauses has apparently existed in modern southwestern dialects.

For ME, therefore, it is significant that at least 11 of the nonhabitual examples of *do* counted in the Appendix occur in conditional clauses or other nonfactive contexts. Two examples appear in (85).

(85) (a) a1325 (c1280) *SLeg.Pass.* (Pep) 1712–14
þulke traytour sede þat he wolde arise ffram deþe and ȝif hit so doþ byffalle þat his disciples his body stele hi wolleþ segge so alle
'This traitor said that he would arise from death, and if it so happens that his disciples steal his body, they will all say so'

(b) c1380 *Firumb. (1)* 1830–31
ȝif þow dost so longe faste ... þyn herte þanne wil ouercast & ake wil þyn hede
'If you fast so long, your heart will then darken, and your head will too'

In all, 27 of the 77 nonhabitual examples of *do* cited in the Appendix appear in contexts where *do* is permitted in modern southwestern dialects: 11 in nonfactive contexts, and (as noted in section 3.4) 16 in standard *do*-support contexts. Fifty nonhabitual cases remain: a distinct minority (26 per cent) of all examples cited in the Appendix, to be sure, but hardly insignificant. I will not analyze them further here, however, because the dangers of *Hineininterpretierung* loom larger as the corpus of data shrinks; their elucidation must be a project for future research.[30] The key point is that almost 75 per cent of all early examples of auxiliary *do* occur in habitual and other contexts where *do* can still occur in southwestern dialects. More importantly still, habituality as a starting-point facilitates a natural analysis of the distinctive modern *do*-support contexts.

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[30] Some examples will always evade explanation: there will be unidentifiable cases of emphatic *do*, and manuscript copyists will sometimes have tried to reproduce some linguistic feature of a text's dialect (e.g. auxiliary *do*) without understanding that feature's (e.g. habitual) distribution. In some cases the traditional poetic-convenience view may even be plausible, but crucially for an element which was already en route to its modern status!

A number of the problematic examples occur in contexts where an imperfective interpretation would be possible; as noted above, such interpretations occur elsewhere in West Germanic. In the Dorset dialect material cited by Barnes (1863, 1886), and in Barnes's own dialect poetry (Gachelin, 1987: 36), *do* sometimes seems to function as an imperfective rather than a habitual marker. One example is *We shall hä râin; the stwones do eve* (Barnes, 1886: 62), where *do eve* must mean 'are becoming damp', not 'habitually become damp'; another, referring to a particular event in August 1814, is *An' while they took ... Their pleäces ... The band did blow an' beät aloud Their merry tuens to the crowd; An' slowly-zwingen flags did spread Their hangen colors over head* (Barnes, 1962: 1.234). Imperfective function has not been described for any twentieth-century dialect or fully studied in nineteenth-century material, but it is a promising area for future work.

6   Conclusion

I have made the following general claims about habitual *do*, its origin, and its role in the creation of periphrastic *do*. First, in EME, a habitual aspect marker arose when the lexical *do* + verbal action noun construction was reinterpreted as a habitual *do* + infinitive construction. Since this change must have followed the relevant noun–verb mergers and auxiliary *do* appears in thirteenth-century texts, it can be dated to the twelfth or thirteenth century. Second, in certain contexts, habitual *do* was reinterpreted as identical to the *do* of V(P) ellipsis, and thus an extension of the ellipsis use to contexts with overt infinitives – in short, as periphrastic *do*. Periphrastic *do* eventually acquired its modern distribution, while habitual *do* lingers in a few marginal English dialects and their creole descendants.

Some parts of the argument are more persuasive than others. The proposals in section 5 will remain tentative in the absence of further work on the ME and ENE semantic and syntactic evolution of *do*. But the proposal in section 3 that ME *do* functioned as a habitual aspect marker and the argument in section 4 about its origin are independent of any connection with periphrastic *do*, and should be assessed on their own merits. To be sure, the early nonhabitual examples of auxiliary *do* noted in section 3.4 cannot be ignored here.

The account proposed above involves natural semantic and syntactic changes with parallels in other languages, and it may solve several puzzles associated with the history of *do*-support. It explains how auxiliary *do* came to be a habitual marker: it originated as such and remains as a synchronic archaism in some dialects; periphrastic *do* is a natural development from this use. On the competing analyses discussed in section 2 above, dialectal habitual *do* is an unmotivated innovation. The account presented here also need not resolve evidence, differently problematic for the two analyses discussed in sections 2.2–3, that causative *do* was primarily an eastern dialect feature whereas periphrastic *do* originated in the west: the two are unrelated. Finally, unlike the accounts cited in section 2.1, this account invokes neither an unattested variety of English nor contact interference for which there is no other evidence.

More generally, I hope to have shown a productive way to integrate several aspects of linguistic structure in historical linguistics. A problem with some purely syntactic accounts of syntactic changes is the problem of motivation: Why, apart from its formal possibility, does a particular reanalysis happen? One way of answering this is to link syntactic and semantic change, and to attribute syntactic changes to independently motivated kinds of change in meaning. I have made a suggestion of this sort for part of the regulation of periphrastic *do*: if this is on the right track, some modern *do*-support contexts may reflect contexts in which the auxiliary's original aspectual force was attenuated. I have also argued that the creation of auxiliary *do* itself was not a purely syntactic reanalysis, as Ellegård (1953) proposed, but reflects the natural convergence of phonological and morpho- logical reduction with typologically well-attested semantic causes. While no less

remarkable synchronically, a celebrated peculiarity of English can thus partly be explained from general principles.

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Appendix: Early auxiliary *do* in ME

This material is based on all unambiguous examples of 'periphrastic' *do* cited by Ellegård (1953) from manuscripts dated c. 1400 or earlier (but also including Chaucer, Gower, and Wyclif). Dates and dialect localization follow *MED*. Duplicate examples from *SLeg.* manuscripts have been pruned, but many additional examples have been added from among those cited by Engblom (1938), Visser (1963–73: 1498–1500), and *MED* (s.v. *dọn* 11b), as have interrogative and negative examples cited without obvious justification as 'emphatic' in *MED* (s.v. *dọn* 11a). A few examples excluded as ambiguous or textually dubious are listed below; not listed are examples already dismissed or questioned by Ellegård, nor the many ambiguous examples Visser calls 'clearly' periphrastic.

The citation for each habitual example briefly indicates why it was judged to be habitual; 'omnipresent' means that the example is like (28a) above, and 'context' means that habituality is established by context. Interrogative, conditional, and (other) nonfactive contexts are shown for nonhabitual examples.

1. From c1300, 60 total: 41 habitual, 19 nonhabitual

SLeg. (Hrl): habitual 340/10 (characteristic state), 460/10 (generalizing temporal clause); nonhabitual 447/144, 513/50

SLeg. (Ld): habitual 7/202 (omnipresent), 45/381 (adverb *euer-eft*), 77/3 (adverb *ofte*), 101/16 (adverbial *al day*), 103/87 (context), 177/6 (subject *euerech feste*), 181/13 (characteristic state), 196/82 (generalizing temporal clause), 198/23 (generalizing temporal clause), 201/55 (generic relative clause), 205/191 (adverbial *in winter*), 217/593 (generic subject *gostes*), 249/314 (omnipresent), 259/101 (generic relative clause), 261/8 (object *alle*), 264/119 (omnipresent), 293/192 (omnipresent), 308/318 (context), 313/476 (natural truth), 316/586 (generalizing temporal clause), 316/783 (generic relative clause), 317/622 (natural truth), 318/649 (natural truth), 318/650 (natural truth), 320/738 (natural truth), 332/315 (adverb *euere*), 356/26 (generic relative clause), 361/59 (omnipresent), 363/42 (generic subject *men*), 376/2 (omnipresent), 377/29 (characteristic state), 418/6 (context), 418/10 (context), 420/80 (context), 423/97 (adverb *i-lome*), 429/297 (generic subject); nonhabitual 35/49

(nonfactive), 80/96 (nonfactive), 108/77, 147/1437, 181/12, 198/27 (nonfactive), 199/64, 221/45, 245/177, 270/309, 287/309, 327/159, 350/161, 357/56, 362/99, 375/274 (nonfactive), 426/192

SLeg.MLChr.: habitual 323 (omnipresent), 400 (adverb *ofte*), 737 (omnipresent)

2. Other material, 135 total: 77 habitual, 58 nonhabitual

c1310 *SLeg. Becket* (Ashm, ed. Thiemke 1919): habitual 1302 (context)

c1325 (a1250) *Harrow.H.* (Hrl), SW Midland dialect: nonhabitual 171

a1325 (c1280) *SLeg.Pass.* (Pep): habitual 14 (adverbial *þulke day*), 705 (omnipresent), 752 (omnipresent), 1251 (characteristic state), 1660 (natural truth), 2302 (omnipresent); nonhabitual 80, 1713 (conditional)

a1325 *SLeg.* (Corp-C): habitual 169/72 (omnipresent)

c1325 (c1300) *Glo.Chron.A*, SW dialect: habitual 179 (natural truth), 662 (natural truth), 3055 (context), 5252 (context), 6532 (adverb *ofte*); nonhabitual 8173, 8809 (nonfactive)

c1325 *Middelerd for mon wes mad* (Hrl), SW Midland dialect: habitual 19 (generic subject)

c1325 *St.Marina* (Hrl): nonhabitual 21

c1330 (?c1300) *Bevis* (Auch), SE Midland dialect: habitual 2305 (generic relative clause)

c1330 (?c1300) *Spec.Guy* (Auch), SE Midland dialect: habitual 456 (generic relative clause), 564 (context), 568 (generic relative clause)

a1333 Shoreham *Poems* (Add), Kentish dialect: habitual 110/324 (generalizing temporal clause)

a1375 *WPal.* (KC), SE Midland dialect: nonhabitual 1364

(c1375) Chaucer *CT.Mk.*, SE Midland dialect: nonhabitual B 3622 (interrogative), B 3624 (interrogative)

(c1378) *PPl.B* (Kane & Donaldson 1988), West Midland dialect: habitual 7.183 (generic object *souls*), 12.168 (generic relative clause)

c1380 *Firumb.(1)*, SW dialect: habitual 67 (subject *many a sarsyn*), 253 (generalizing relative clause), 275 (characteristic state), 1275 (natural truth), 3045 (characteristic state), 3205 (adverb *euere*), 4614 (generic relative clause), 5087 (characteristic state), 5329 (characteristic state), 5843 (context); nonhabitual 444, 708, 1645, 1718, 1830 (conditional), 2001, 2006 (inversion), 2155, 2232, 2309, 2491 (inversion), 2746, 2860, 2893 (inversion), 3053, 3149, 3182 (inversion), 3547 (inversion), 3889 (interrogative), 3965, 4509 (inversion), 5049, 5370 (inversion), 5472 (inversion), 5689 (inversion)

(c1380) Chaucer *HF*, SE Midland dialect: habitual 1036 (generalizing temporal clause)

(1384) *AppealUsk* in *BkLondE*: habitual 26/101 (adverbial *for euer*)

(c1385) Chaucer *TC*, SE Midland dialect: habitual 2.54 (generalizing temporal clause)

(a1387) Trev. *Higd.* (StJ-C): habitual 1.237 (adverbial *at nyзt*), 1.397 (characteristic

state), 1.405 (adverb *seelde*), 1.423 (natural truth), 1.427 (generalizing conditional clause), 1.429 (generic subject *men*), 4.327 (generalizing temporal clause), 5.253 (adverbial *þat tyme* = *in diebus illis*, generic *Bretouns*)

c1390 (a1325) *Ipotis* (Vrn), West Midland dialect: nonhabitual 247 (inversion), 290, 387

c1390 *Talking LGod* (Vrn), West Midland dialect: habitual 54/28 (adverb *euer*)

(a1393) Gower *CA* (Frf), SE Midland dialect: habitual 1.2705 (adverb *ever*), 4.2432 (context), 7.1783 (omnipresent)

a1400 (c1303) Mannyng *HS* (Hrl), NE Midland dialect: habitual 340 (generalizing conditional clause), 610 (generalizing temporal clause), 11381 (generalizing relative clause); nonhabitual 641 (conditional), 5709, 7521

a1400 (a1325) *KTars* (Vrn), West Midland dialect: habitual 269 (generalizing conditional clause)

a1400 (a1325) *Cursor*, Northern dialect: habitual 12 (Göt Trin-C, generic subject *men*), 838 (Trin-C, adverbial *þat tyme*), 3311 (Trin-C, subject *alle hir dedes*), 5765 (Trin-C, context), 8180 (Vsp Göt Trin-C, adverbial *al his life*), 9186 (Trin-C, context), 11052 (Frf Trin-C, subject *either*), 18028 (Frf Göt Trin-C, context), 19296 (Trin-C, adverb *euer*), 19565 (Frf, generic relative clause), 20127 (Frf, context), 20923 (Frf, context), 21247 (Trin-C, adverb *aftir*), 23205 (Frf, natural truth), 27173 (Frf, context); nonhabitual 2008 (Trin-C), 2788 (Vsp Frf Göt), 3016 (Trin-C, inversion), 3290 (Trin-C), 8355 (Frf Göt Trin-C), 8972 (Trin-C), 9577 (Frf Trin-C), 10743 (Frf Trin-C, nonfactive [cf. MS variant *suld* 'should']), 11482 (Frf Trin-C), 20477 (Trin-C), 21017 (Trin-C, inversion), 21482 (Frf)

?a1400 (a1338) Mannyng *Chron.Pt.(1)* (Petyt), NE Midland dialect: habitual 500 (context), 1331 (context); nonhabitual 1801, 1849 (nonfactive), 2544 (inversion), 3738

?a1400 (a1338) Mannyng *Chron.Pt.(2)* (Petyt), NE Midland dialect: habitual 214 (characteristic state); nonhabitual 1388

a1400 (?a1350) *Siege Troy(1)* (Suth): nonhabitual 219 (nonfactive [cf. e.g. *wolde* in other MSS]), 541

a1400 *Cato(3)* (Frf): habitual 82 (generalizing temporal clause)

c1400 (?c1380) *Pearl* (Nero), NW Midland dialect: habitual 293 (characteristic state)

c1400 (?c1384) Wyclif *50 HFriars* (Bod), SE Midland dialect: habitual 384/10 (generic subject *beggers*)

c1400 *Bible SNT(1)* (Selw): habitual James 2–6 (context), James 2–6 (context)

c1400 (Moore, 1885: xii) *Book of the foundation of St Bartholomew's Church* (Moore, 1885): habitual 29/13 (context)

c1400 *Ihesus doþ him* (Bod): habitual 1 (omnipresent)

a1425 Wyclif *Serm* (Bod), SE Midland dialect: habitual 1.42/16 (generic subject *sum men*), 1.379/26 (context)

3. Examples excluded from consideration

3.1. Textually dubious: *Horn* (Cmb) 1057 (the copyist anticipates 'did' from 1058,

where in turn he creates nonsense by anticipating 'took' from 1059); *Glo.Chron.A* 4920 (Engblom, 1938: 74 n. 1)

3.2. Possibly causative: Chaucer *CompL* 14; *Cursor* (Frf) 5279; *PPl B* (Kane & Donaldson, 1988) 5.242

References

Allen, C. (1997). Middle English case loss and the 'creolization' hypothesis. *English Language and Linguistics* 1: 63–89.

Allen, R. (1984). *King Horn: an edition based on Cambridge University Library MS Gg. 4.27 (2)*. New York: Garland.

Baker, C. L. (1970a). Double negatives. *Linguistic Inquiry* 1: 169–86.

Baker, C. L. (1970b). Problems of polarity in counterfactuals. In Sadock, J. M. & A. L. Vanek (eds.), *Studies presented to Robert B. Lees by his students*. Edmonton: Linguistic Research. 1–15.

Bammesberger, A. (1990). *Die Morphologie des urgermanischen Nomens*. Heidelberg: Carl Winter.

Barnes, W. (1863). *A grammar and glossary of the Dorset dialect*. (Transactions of the Philological Society.) Berlin: Asher.

Barnes, W. (1886). *A glossary of the Dorset dialect with a grammar*. 1970 reprint ('2nd edn'). St Peter Port, Guernsey: Stevens-Cox.

Barnes, W. (1962). *Poems*. B. Jones (ed.). 2 vols. Carbondale: Southern Illinois University Press.

Barry, M. V. (1982). The English language in Ireland. In Bailey, R. W. & M. Görlach (eds.), *English as a world language*. Ann Arbor: University of Michigan Press. 84–133.

Behaghel, O. (1924). *Deutsche Syntax: eine geschichtliche Darstellung*. Band II: *Die Wortklassen und Wortformen*, B. *Adverbium*. C. *Verbum*. Heidelberg: Winter.

Belfour, A. O. (1909). *Twelfth-century homilies in MS. Bodley 343*. (Early English Text Society, Original Series, 137.) London: Oxford University Press.

Bliss, A. (1972). Languages in contact: some problems of Hiberno-English. *Proceedings of the Royal Irish Academy* 72 C: 63–82.

Bliss, A. (1979). *Spoken English in Ireland, 1600–1740*. Dublin: Dolmen Press.

Borkin, A. (1971). Polarity items in questions. In *Papers from the Seventh Regional Meeting, Chicago Linguistic Society, April 16–18, 1971*. Chicago: Chicago Linguistic Society. 53–62.

Brinton, L. J. (1998). Aspectuality and countability: a cross-categorial analogy. *English Language and Linguistics* 2: 37–63.

Bybee, J., R. Perkins & W. Pagliuca (1994). *The evolution of grammar: tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press.

Cameron, A. et al. (1986–). *Dictionary of Old English*. [Microfiche.] Toronto: Pontifical Institute of Mediaeval Studies.

Campbell, A. (1959). *Old English grammar*. Corrected reprint (1962). Oxford: Clarendon Press.

Chantraine, P. (1979). *La formation des noms en grec ancien*. Nouveau tirage. (Société de Linguistique de Paris, Collection linguistique, 38.) Paris: C. Klincksieck.

Coleman, R. (1985). The Indo-European origins and Latin development of the accusative with infinitive construction. In Tourater, Chr. (ed.), *Syntaxe et latin: actes du IIème congrès international de linguistique latine*. Aix-en-Provence: Université de Provence. 307–41.

Comrie, B. (1976). *Aspect*. Corrected reprint (1981). Cambridge: Cambridge University Press.

Cornips, L. (1994). De hardnekkige vooroordelen over de regionale *doen+infinitief-* constructie. *Forum der Letteren* 35: 282–94.

Curry, M. J. (1992) The do variant field in questions and negatives: Jane Austen's *Complete Letters* and *Mansfield Park*. In Rissanen, M. et al. (eds.), *History of Englishes: new methods and interpretations in historical linguistics*. Berlin: Mouton de Gruyter. 705–19.

Davidson, D. (1967). The logical form of action sentences. In Rescher, N. (ed.), *The logic of decision and action*. Pittsburgh: University of Pittsburgh Press. 81–95.

Davidson, D. (1985). Adverbs of action. In Vermazen, B. & M. B. Hintikka (eds.), *Essays on Davidson: actions and events*. Oxford: Clarendon Press. 230–41.

Declerck, R. (1986). The manifold interpretation of generic sentences. *Lingua* **68**: 149–88.

Denison, D. (1985). The origins of periphrastic *do*: Ellegård and Visser reconsidered. In Eaton, R., O. Fischer, W. Koopman & F. van der Leek (eds.), *Papers from the 4th International Conference on English Historical Linguistics*. Amsterdam: Benjamins. 45–60.

Denison, D. (1993). *English historical syntax: verbal constructions*. London: Longman.

Dixon, R. M. W. (1988). *A grammar of Boumaa Fijian*. Chicago: University of Chicago Press.

Dowty, D. (1979). *Word meaning and Montague grammar: the semantics of verbs and times in generative semantics and in Montague's PTQ*. Dordrecht: Reidel.

Dowty, D. (1989). On the semantic content of the notion of 'thematic role'. In Chierchia, G., B. H. Partee & R. Turner (eds.), *Properties, types and meanings*, vol. 2. (Studies in Linguistics and Philosophy, 39.) Dordrecht: Kluwer Academic Publishers. 69–129.

Ellegård, A. (1953). *The auxiliary* do: *the establishment and regulation of its use in English*. (Gothenburg Studies in English, 2.) Stockholm: Almqvist & Wiksell.

Elworthy, F. T. (1875). *The dialect of West Somerset*. (English Dialect Society, Series D, Miscellaneous, 7.) London: Trübner. [Separate printing from *Transactions of the Philological Society* 1875–6: 197–272.]

Elworthy, F. T. (1877). *An outline of the grammar of the dialect of West Somerset*. (English Dialect Society, Series D, Miscellaneous, 19.) London: Trübner. [Separate printing of 'The grammar of the dialect of West Somerset', *Transactions of the Philological Society* 1877–8–9: 143–257.]

Engblom, V. (1938). *On the origin and early development of the auxiliary* do. (Lund Studies in English, 6.) Lund: Gleerup.

Erben, J. (1969). 'Tun' als Hilfsverb im heutigen Deutsch. In Engel, U., P. Grebe & H. Rupp (eds.), *Festschrift für Hugo Moser*. Dusseldorf: Schwann. 46–52.

Eythórsson, T. (1996). Functional categories, cliticization, and verb movement in the early Germanic languages. In Thráinsson, H., S. D. Epstein & S. Peter (eds.), *Studies in comparative Germanic syntax II*. Dordrecht: Kluwer. 109–39.

Fife, J. (1986). The semantics of *gwneud* inversions. *Bulletin of the Board of Celtic Studies* **33**: 133–44.

Filppula, M. (1997). Cross-dialectal parallels and language contacts: evidence from Celtic Englishes. In Hickey, R. & S. Puppey (eds.), *Language history and linguistic modelling: a festschrift for Jacek Fisiak on his 60th birthday*, vol. 1. Berlin: Mouton de Gruyter. 943–57.

Fischer, A. (1976). *Dialects in the south-west of England: a lexical investigation*. (Cooper Monographs on English and American Language and Literature, English Dialect Series, 25.) Bern: Francke.

Fischer, O. C. M. (1992). Syntax. In Blake, N. (ed.), *1066–1476*. (Cambridge History of the English Language, 2.) Cambridge: Cambridge University Press. 207–408.

Gachelin, J.-M. (1987). *William Barnes and the Dorset dialect*. (Thomas Hardy Year Book, 15.) St Samson, Guernsey: Toucan Press.

Gachelin, J.-M. (1991). Transitivity and intransitivity in the dialects of South-West England. In Trudgill & Chambers, 1991: 218–28.

Grimme, H. (1922). *Plattdeutsche Mundarten*. 2nd edn. Berlin: de Gruyter.

Hall, J. (1901). *King Horn: a Middle-English romance*. Oxford: Clarendon Press.

Harris, J. (1984). Syntactic variation and dialect divergence. *Journal of Linguistics* **20**: 303–27.

Harris, J. (1986). Expanding the superstrate: habitual aspect markers in Atlantic Englishes. *English World-Wide* **7**: 171–200.

Henry, P. L. (1957). *An Anglo-Irish dialect of North Roscommon.* Dublin: Department of English, University College, Dublin.

Henry, P. L. (1958). A linguistic survey of Ireland: preliminary report. *Lochlann* **1**: 49–208. (Norsk Tidsskrift for Sprogvidenskap, Suppl. Bind.) Oslo: Aschehoug.

Henry, V. (1900). *Le dialecte alaman de Colmar (Haute-Alsace) en 1870: grammaire et lexique.* (Université de Paris, Bibliothèque de la Faculté des lettres, 11.) Paris: Germer Baillière.

Heritage, S. J. (1879). *The English Charlemagne romances.* Part I: *Sir Ferumbas.* (Early English Text Society, Extra Series, 34.) London: Oxford University Press.

Higgins, F. R. (1992a). The intransitive infinitive of S.W. dialects: a simple generalization. Unpublished MS, University of Massachusetts, Amherst.

Higgins, F. R. (1992b). Vicarious *do* and the auxiliary. Paper presented at the 2nd Diachronic Generative Syntax Workshop, Philadelphia, 7 November 1992.

Hinderling, R. (1967). *Studien zu den starken Verbalabstrakta des Germanischen.* (Quellen und Forschungen zur Sprach- und Kulturgeschichte der germanischen Volker, Neue Folge, 24 [148].) Berlin: Walter de Gruyter.

Holm, I. (1988, 1989). *Pidgins and creoles.* 2 vols. Cambridge: Cambridge University Press.

Holthausen, F. (1888). *Vices and virtues.* Part I: *Text and translation.* (Early English Text Society, Original Series, 89.) London: Oxford University Press.

Hopper, P. J. & S. A. Thompson (1984). The discourse basis for lexical categories in universal grammar. *Language* **60**: 703–52.

Hopper, P. J. & E. C. Traugott (1993). *Grammaticalization.* Cambridge: Cambridge University Press.

Horn, L. R. (1989). *A natural history of negation.* Chicago: University of Chicago Press.

Hudson, R. A. (1997). The rise of auxiliary *do*: verb-non-raising or category-strengthening? *Transactions of the Philological Society* **95**: 41–72.

Ihalainen, O. (1976/1991). Periphrastic *do* in affirmative sentences in the dialect of East Somerset. *Neuphilologische Mitteilungen* **77**: 608–22. [Revised and reprinted in Trudgill & Chambers (1991: 148–60).]

Jespersen, O. (1927, 1931, 1940). *A modern English grammar on historical principles.* Part III: *Syntax (second volume).* Part IV: *Syntax (third volume).* Part V: *Syntax (fourth volume).* London: George Allen & Unwin.

Kallen, J. L. (1986). The co-occurrence of *do* and *be* in Hiberno-English. In Harris, J., D. Little & D. Singleton (eds.), *Perspectives on the English language in Ireland: proceedings of the First Symposium on Hiberno-English.* Dublin: Centre for Language and Communication Studies, Trinity College Dublin. 133–47.

Kallen, J. L. (1989). Tense and aspect categories in Hiberno-English. *English World-Wide* **10**: 1–39.

Kane, G. & E. T. Donaldson (eds.) (1988). *Piers Plowman: the B Version.* London: Athlone.

Kastovsky, D. (1968). *Old English deverbal substantives derived by means of a zero morpheme.* Dissertation, Eberhard-Karls-Universität, Tübingen.

Kastovsky, D. (1985). Deverbal nouns in Old and Modern English: from stem-formation to word-formation. In Fisiak, J. (ed.), *Historical semantics; historical word-formation.* Berlin: Mouton. 221–61.

Kastovsky, D. (ed.) (1991). *Historical English syntax.* Berlin: Mouton de Gruyter.

Keseling, G. (1968). Periphrastische Verbformen im Niederdeutschen. *Jahrbuch des Vereins für niederdeutsche Sprachforschung* **91**: 139–51.

Kiparsky, P. (1995). Indo-European origins of Germanic syntax. In Battye, A. & I. Roberts (ed.), *Clause structure and language change.* New York: Oxford University Press. 140–69.

Kiparsky, P. (1998). Partitive case and aspect. In Butt, M. & W. Geuder (eds.), *The projection of arguments: lexical and compositional factors.* Stanford, CA: Centre for the Study of Language and Information. 265–307.

Klemola, J. (1994). Periphrastic DO in south-western dialects of British English: a reassessment. *Dialectologia et Geolinguistica* 2: 33–51.

Koptjevskaja-Tamm, M. (1993). *Nominalizations.* London: Routledge.

Krahe, H., and W. Meid (1967). *Germanische Sprachwissenschaft,* vol. 3: *Wortbildungslehre.* Berlin: Sammlung Göschen.

Krifka, M. (1992). Thematic relations as links between nominal reference and temporal constitution. In Sag, I. A. & A. Szabolcsi (eds.), *Lexical matters.* (CSLI Lecture Notes, 24.) Stanford, CA: Center for the Study of Language and Information. 29–53.

Krifka, M., F. J. Pelletier, G. N. Carlson, A. ter Meulen, G. Link & G. Chierchia (1995). Genericity: an introduction. In Carlson, G. N. & F. J. Pelletier (eds.), *The generic book.* Chicago: University of Chicago Press. 1–124.

Kroch, A. S. (1989). Function and grammar in the history of English: periphrastic *do.* In Fasold, R. W. & D. Schiffrin (eds.), *Language change and variation.* Amsterdam: Benjamins. 133–72.

Kroch, A. S. (1990). Reflexes of grammar in patterns of language change. *Journal of Language Variation and Change* 1: 199–244.

Kroch, A. S. (1997). Comments on 'syntax shindig' papers. *Transactions of the Philological Society* 95: 133–47.

Kurath, H. et al. (1954–). *Middle English dictionary.* Ann Arbor: University of Michigan Press.

Ladusaw, W. A. (1996). Negation and polarity items. In Shalom Lappin (ed.), *The handbook of contemporary semantic theory.* Oxford: Blackwell. 321–41.

Lee, D. W. (1948). *Functional change in early English.* Menasha, WI: Banta.

Le Page, R. B. & A. Tabouret-Keller (1985). *Acts of identity: creole-based approaches to language and ethnicity.* Cambridge: Cambridge University Press.

Levinson, S. C. (1983). *Pragmatics.* Cambridge: Cambridge University Press.

Linebarger, M. C. (1987). Negative polarity and grammatical representation. *Linguistics and Philosophy* 10: 325–87.

Mackie, J. (1925). Wanted – a wife. *Dialect poems and a play.* (Somerset Folk Series, 23.) London: Folk Press.

McConnell-Ginet, S. (1982). Adverbs and logical form. *Language* 58: 144–84.

Miller, T. (1890). *The Old English version of Bede's ecclesiastical history of the English people.* Part I, 1. (Early English Text Society, Original Series, 95.) London: Oxford University Press.

Minkova, D. (1991). *The history of final vowels in English: the sound of muting.* Berlin: Mouton de Gruyter.

Mitchell, B. (1985). *Old English syntax.* 2 vols. Oxford: Clarendon Press.

Mithun, M. (1984). The evolution of noun incorporation. *Language* 60: 847–93.

Moore, N. (1885). *The book of the foundation of St Bartholomew's Church in London.* (Early English Text Society, Original Series, 163.) London: Oxford University Press.

Morice, A. G. (1932). *The Carrier language,* vol. 2. (Anthropos Linguistische Bibliothek, 10.) Mödlung bei Wien, St Gabriel, Austria: Verlag der internationalen Zeitschrift 'Anthropos'.

Murray, J. A. H. et al. (1989). *The Oxford English dictionary.* 2nd edn prepared by J. A. Simpson & E. S. C. Weiner. 20 vols. Oxford: Clarendon Press.

Mustanoja, T. F. (1960). *A Middle English syntax,* vol. I: *Parts of speech.* (Mémoires de la Société Néophilologique de Helsinki, 23.) Helsinki: Société Néophilologique.

Nagel, F. (1909). *Der Dativ in der frühmittelenglischen Prosa mit besonderer Berücksichtigung von Synthese und Analyse.* Greifswald: Hans Adler.

Nevalainen, T. (1991). Motivated archaism: the use of affirmative periphrastic *do* in Early Modern English liturgical prose. In Kastovsky, 1991: 303–20.

Ó Siadhail, M. (1989). *Modern Irish: grammatical structure and dialectal variation.* Cambridge: Cambridge University Press.

Orton, H. & M. F. Wakelin (1968). *Survey of English dialects (B): the basic material,* vol. 4: *The Southern counties.* Part III. Leeds: Arnold.

Parsons, T. (1990). *Events in the semantics of English: a study in subatomic semantics.* Cambridge, MA: MIT Press.

Poussa, P. (1990). A contact-universals origin for periphrastic *do,* with special consideration of Old English-Celtic contact. In Adamson, S., V. Law, N. Vincent & S. Wright (eds.), *Papers from the 5th International Conference on English Historical Linguistics.* Amsterdam: Benjamins. 407–34.

Preusler, W. (1938, 1939). Keltischer Einfluß im Englischen. *Indogermanische Forschungen* **56**: 178–91; **57**: 140–1.

Quine, W. V. O. (1960). *Word and object.* Cambridge, MA: MIT Press.

Reed, D. W. (1950). *The history of inflectional* n *in English verbs before 1500.* (University of California Publications in English, 7, 4.) Berkeley: University of California Press.

Rehg, K. L. (1981). *Ponapean reference grammar.* Honolulu: University Press of Hawaii.

Rehg, K. L. & D. G. Sohl (1979). *Ponapean-English dictionary.* Honolulu: University Press of Hawaii.

Rickford, J. R. (1986). Social contact and linguistic diffusion: Hiberno-English and New World Black English. *Language* **62**: 245–89.

Rissanen, M. (1985). Periphrastic *do* in affirmative statements in Early American English. *Journal of English Linguistics* **18**: 163–83.

Rissanen, M. (1991). Spoken language and history of the *do-* periphrasis. In Kastovsky, 1991: 321–42.

Roberts, I. G. (1993). *Verbs and diachronic syntax: a comparative history of English and French.* Dordrecht: Kluwer.

Ross, J. R. (1972). Act. In Davidson, D. & G. Harman (eds.), *Semantics of natural language.* 2nd edn. Dordrecht: D. Reidel. 70–126.

Simon Evans, D. (1964). *A grammar of Middle Welsh.* Dublin: Dublin Institute of Advanced Studies.

Smithers, G. V. (1987). *Havelok.* Oxford: Clarendon Press.

Stein, D. (1990). *The semantics of syntactic change: aspects of the evolution of* do *in English.* Berlin: Mouton de Gruyter.

Stein, D. (1991). Semantic aspects of syntactic change. In Kastovsky, 1991: 355–66.

Stein, D. (1992). *Do* and *tun*: a semantics and varieties based approach to syntactic change. In Gerritsen, M. & D. Stein (eds.), *Internal and external factors in syntactic change.* Berlin: Mouton de Gruyter. 131–55.

Sweet, H. (1871). *King Alfred's West-Saxon version of Gregory's Pastoral Care.* Part I. (Early English Text Society, Original Series, 45.) London: Oxford University Press.

Thiemke, H. (1919). *Die me. Thomas Beket-Legende des Gloucesterlegendars, kritisch herausgegeben mit Einleitung.* (Palaestra, 131.) Berlin: Mayer & Müller.

Thomason, S. G. & T. Kaufman (1988). *Language contact, creolization, and genetic linguistics.* Berkeley: University of California Press.

Tieken-Boon van Ostade, I. (1987a). *The auxiliary do in eighteenth-century English: a sociohistorical-linguistic approach.* (Geschiedenis van de Taalkunde, 6.) Dordrecht: Foris.

Tieken-Boon van Ostade, I. (1987b). Negative *do* in eighteenth-century English: the power of

prestige. In Bunt, G. H. V., E. S. Kooper, J. L. Mackenzie & D. R. M. Wilkinson (eds.), *One hundred years of English studies in Dutch universities*. Amsterdam: Rodopi. 157–71.

Tieken-Boon van Ostade, I. (1988). Dr Johnson and the auxiliary *do*. *Hiroshima Studies in English Language and Literature* **33**: 22–49.

Tieken-Boon van Ostade, I. (1990). The origin and development of periphrastic auxiliary *do*: a case of destigmatisation. *North-Western European Language Evolution (NOWELE)* **16**: 3–52.

Tieken-Boon van Ostade, I. (1997). *Any* or *no*: functional spread of non-assertive *any*. In Hickey, R. & S. Puppel (eds.), *Language history and linguistic modelling: a festschrift for Jacek Fisiak on his 60th birthday*, vol. 2. Berlin: Mouton de Gruyter. 1545–54.

Todd, L. (1984). By their tongue divided: towards an analysis of speech communities in Northern Ireland. *English World-Wide* **5**: 159–80.

Traugott, E. C. (1972). *A history of English syntax*. New York: Holt, Rinehart & Winston.

Trudgill, P. (1986). *Dialects in contact*. Oxford: Blackwell.

Trudgill, P. & J. K. Chambers (eds.) (1991). *Dialects of English: studies in grammatical variation*. London: Longman.

Tschinkel, H. (1908). *Grammatik der Gottscheer Mundart*. Halle: Niemeyer.

van der Wurff, W. (1992). Syntactic variability, borrowing, and innovation. *Diachronica* **9**: 61–85.

Visser, F. T. (1963–73). *An historical syntax of the English language*. 4 vols. Leiden: E. J. Brill.

Wakelin, M. F. (1972). *English dialects: an introduction*. London: Athlone.

Wakelin, M. F. (1986). *The southwest of England*. Amsterdam: John Benjamins.

Warner, A. R. (1992). Elliptical and impersonal constructions: evidence for auxiliaries in Old English? In Colman, F. (ed.), *Evidence for Old English: material and theoretical bases for reconstruction*. (Edinburgh Studies in the English Language, 2.) Edinburgh: John Donald. 178–210.

Warner, A. R. (1993). *English auxiliaries*. Cambridge: Cambridge University Press.

Weiss, E. (1956). Tun. Machen. *Bezeichnungen für die kausative und die periphrastische Funktion im Deutschen bis um 1400*. (Acta Universitatis Stockholmiensis, Stockholmer Germanistische Forschungen, 1.) Stockholm: Almqvist & Wiksell.

Williams, J. P. (1988). The development of aspectual markers in Anglo-Caribbean English. *Journal of Pidgin and Creole Languages* **3**: 245–63.

Williams, S. J. (1980). *A Welsh grammar*. Cardiff: University of Wales Press.

Wright, J. (1898–1905). *English dialect dictionary*. London: Frowde.

Wright, S. (1989a). Discourse, style, and the rise of periphrastic *do* in English. *Folia Linguistica Historica* **10**: 71–91.

Wright, S. (1989b). On the stylistic basis of syntactic change. *Folia Linguistica Historica* **10**: 93–115. [Reprinted in Kastovsky 1991: 469–91.]

Wright, S. (1994). The critic and the grammarians: Joseph Addison and the prescriptivists. In Stein, D. & I. Tieken-Boon van Ostade (eds.), *Towards a standard English, 1600–1800*. Berlin: Mouton de Gruyter. 243–84.