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*How Patterns Spread: The To-Infinitival
Complement as a Case of Diffusional Change, or
'To-Infinitives, and Beyond!'*

Bettelou Los

6.1 Introduction ^{*}

This chapter revisits my earlier work on *to*-infinitives (Los 1999, 2005) in the light of the new insights about the spread of complementation patterns provided by De Smet (2013) and Rudanko (2015). Their investigations into the spread of the gerund as a verb complement benefited from the fact that the gerund came into existence relatively recently, which made it possible not only to construct a scenario of how it spread through the system of verbal complementation, but also to date the various stages. Although the spread of the *to*-infinitive took place too early for us to do the same, the distribution of the *to*-infinitive in Old English (OE) did allow me to identify the niche in which it first arose, and to suggest a scenario of its spread. De Smet's concepts of broad and narrow paradigmatic analogy make it possible to construct a more fine-grained scenario for the rise of *to*-infinitives, as they also take into account semantic groups; this means that the original semantics of the individual groups of verbs, as reflected in their etymologies, may provide additional data. That etymologies of individual verbs can be very useful for such a purpose has been demonstrated by Lau (2015).

Testing the trajectory of the spread of the *to*-infinitive against De Smet's (2013) scenario has the advantage of checking whether reconstructing that spread solely on the basis of the synchronic distribution of the *to*-infinitive in OE is valid. Cuyckens (1999) in his investigation of the pathway from 'proximity' *by* to 'passive' *by* noted that there is an

^{*} I would like to thank Hendrik De Smet and an anonymous reviewer for their very helpful comments. The final words of the subtitle of this chapter are a tribute to David Denison, who, as the external examiner for my PhD, made them the end of his speech at my after-viva party.

uneasy relationship between the concept of synchronic family resemblance networks and actual historical reality: important transitional meanings may vanish at a later stage, and need not always be synchronically present. In the case of the development of the *to*-infinitive, however, we lack the historical data to back up the historical pathway of change suggested by the synchronic distribution of the *to*-infinitive in OE. We can see that the proposed pathway is in line with the distribution of the *du*-infinitive in Gothic, but that is about as far as we can get. We will see that tracking broad and narrow paradigmatic analogies between semantic groups confirms the trajectory hypothesised on the basis of synchronic OE data, and may even account for the rise of the *to*-infinitival Exceptional Case-Marking (ECM) construction, the most recent development in the trajectory, as we will see in the final section of this chapter.

6.2 Paths of Diffusion: De Smet (2013)

Hendrik De Smet's (2013) study about diffusional change in the English system of complementation contains a detailed account of the spread of the gerund as verb complement in early Modern English (eModE). The first gerunds that appear as verb complements are bare gerunds as in (1); they derive from the OE *-ungl-ing* suffix that builds nouns from verbal stems. These early gerunds do not have any modifiers or complements (De Smet calls them 'bare gerunds'), and hence do not show clear signs of their category, whether nominal or already verbal.

- (1) and halde þe in chastite, and iuil langingis do away; luue **fasting**
 and hold yourself in chastity and evil longings do away love fasting
 'and keep yourself chaste, and get rid of evil desires; love fasting'
 (PPCME2, A1425; De Smet 2013: 162)

Luue 'love' in (1) is one of the first verbs attested with a gerund complement. This verb and the other early gerund-taking verbs share another complement besides the gerund: the abstract noun. Typical examples of such nouns are the vices listed in (2).

- (2) Jake loves lechery, foul language, war, theft, whoredom, and drunkenness.

Present-day English (PDE) examples of bare gerunds after verbs like *love* usually force subject control, but this is not what we find with these early bare gerunds. They denote generic rather than specific acts, events, or

situations, and like the bare abstract nouns in (2), the control relations depend on the context. It is probably for the same reason that gerunds do not at first appear in a passive construction with *be* (as in *Jake fears being captured*); instead, we get gerunds that are active in form but passive in sense (*Jake fears capturing*), by analogy of *Jake fears capture*. It is from this tiny niche of bare abstract nouns that the gerund takes off. De Smet calls this first stage of the diffusion of the gerund complement *narrow paradigmatic analogy*.

The second stage involves *semantic analogy*, in which verbs of Emotion, Avoidance, Necessity, and Endurance start to occur with the gerund. The model here is still the bare abstract noun, although indefinite nouns with a generic interpretation are also found, as in (3a); the gerund is still voice-neutral, as shown in (3b).

- (3) a. Jake avoids/escapes/fears/risks capture/punishment/shipwreck.
 b. [He] escaped drowning verve narrowly.

(*OED*, 1560; De Smet 2013: 174)

Endurance verbs are found with bare gerunds in a construction with *cannot* or *could not*; note that the conditional in (4b) implies a negative: ‘... but it could not bear recapitulating’.

- (4) a. He cannot endure/bear criticism/banishment.
 b. I would sum up the Particulars of this Second Head, if the Examiner’s Performance could bear recapitulating.

(*OED*, 1699; De Smet 2013: 195)

Some kind of threshold appears to be reached at this stage: so many verbs appear with gerund complements that users have started to identify coherent groups that share the same semantics, and the bare gerund is gradually extended to verbs that did not themselves collocate with a bare abstract noun, but had similar meanings to these established gerund ‘families’. Verbs of negative implication, which share a meaning component with the endurance verbs in the previous section but did not (and still do not) take bare abstract nouns, now start to appear with gerund complements. The gerund is being extended beyond its original model. A typical PDE example is (5).

- (5) I could not help laughing.

Only one verb of this group provides a link with bare abstract noun complements: the now obsolete verb *forbear* ‘refrain from’, illustrated in (6).

- (6) Quen þaim biheld þat kinges here, was nan þat lahter miht
 when they beheld the king's army was none that laughter might
 forbere
 forbear
 'When they beheld the king's army, none of them could abstain from
 laughter' (MED, a1400; De Smet 2013: 173)

Note that (6) shows that the trajectory of the gerund cannot be recaptured on the basis of synchronic data alone – as a general rule, important transitional meanings are not always synchronically present, as we noted in Section 6.1, and in this particular case it is quite likely that some original action noun uses have been replaced by the gerund.

The extension to new groups of verbs has consequences for the gerund complement itself. Another member of this new group, *defer*, did not collocate with bare abstract or indefinite nouns but with 'definite' nouns – *the search, the journey, the visit* – probably because of its basic meaning of 'postpone'; what gets postponed is usually a plan that was made earlier and is hence identifiable (De Smet 2013: 186). The remaining members of this group – *decline, help, omit* – do not collocate with abstract nouns, but appear with gerund complements in eModE on the basis of their meaning only. *Help* is a relative newcomer to this group as it did not have the relevant meaning of negative implication when the group was first formed.

Stage III finds Retrospective and Proposal verbs taking gerund complements. These groups do not include a single member that ever collocated with bare abstract nouns, and the gerund did not appear here on the strength of their meanings either, so these verbs represent a significant departure from the original model. They emerged with non-bare gerunds, as in (7a) and (7b); the subjectless gerund, as in (7c), is a secondary development from the non-bare gerund rather than the original model (as it was for the verbs in Stages I and II), a process De Smet (2013: 197–8) terms *indirect paradigmatic analogy*.

- (7) a. I remember his turning off his chief ecuyer for merely whispering
 in the street with a maquignon, who was bringing him a horse for
 sale. (OED, 1834 G. P. R. James *John Marston Hall* x)
 b. I remember/recollect/recall his mother asking him that.
 c. I remember/recollect/recall asking him that.

Proposal verbs, which take definite NPs, as in (8a), now also start to appear with gerunds, as in (8b) and (8c). Note the definite article in (8b), and the use of *of* in (8c). Note that the subjectless gerund in (8d) is a secondary

development (from the definite NP stage) rather than a direct link to the earlier stage of *narrow paradigmatic analogy*.

- (8) a. he was the man that did propose the removal of the Chancellor.
(CEMET, 1667; De Smet 2013: 203)
- b. I to the office, whither Creed come by my desire, and he and I to my wife, to whom I now propose the going to Chetham.
(CEMET, 1667 *The Diary of Samuel Pepys*; De Smet 2013: 201)
- c. Mr Warren proposed my getting of £100 to get him a protection for a ship to go out, which I think I shall do.
(CEMET, 1665 *The Diary of Samuel Pepys*; De Smet 2013: 201)
- d. I am so sick of it all, that if we are victorious or not, I propose leaving England in the spring.
(CLMETEV, 1741; De Smet 2013: 200)

There is at this stage a broad association between gerund complements and noun phrases in general, not just between bare gerunds and bare abstract nouns: *broad paradigmatic analogy* (Stage IV). Note that the gerunds at this stage have achieved functional equivalence with a finite clause expressing e.g. propositions.

Although the *to*-infinitive developed much earlier than the gerund so that we lack synchronic data, the story of the *to*-infinitive is likely to have been a similar tale of gradual diffusion, including abrupt gearshifts where entirely new classes of verbs start to appear with this complement. This will be explored in the remainder of this chapter.

6.3 Origin and Development of *To*-Infinitives

To in the *to*-infinitive is a grammaticalised development from the preposition *to*. The formal similarity of the *to*-infinitive to a *to*-PP, as well as the etymological facts of the *to*-infinitive, gives us a niche from which the *to*-infinitive started its rise, analogous to the bare abstract noun in (2), (3a), and (4a), which provided a niche for the gerund to emerge as complement of a small number of verbs. The *to*-infinitive also seems to have arisen in a very local niche: a PP with *to* in which the preposition *to* does not refer to distance-in-space but distance-in-time, the future.

There were two infinitives in OE, the bare infinitive and the *to*-infinitive; they are given in (9).

- (9) a. bare infinitive: *beran* ‘bear’
 b. *to*-infinitive: *to berenne* ‘to bear’

The etymology of the *to*-infinitive is often given as a bare infinitive in the complement of a preposition *to*, but this leaves the gemination (‘doubling’) of the *-n-* in the *to*-infinitive unexplained (Grimm 1837: 105, cited in Jolly 1873: 150–4). The gemination points to the presence of an earlier *-j-*, probably part of a nominalising suffix (Dirk Boutkan, personal communication). This parallels the origin of the gerund, which also started out as a verbal stem with a derivational suffix *-ung* that made it into a noun, capable of nominal behaviour such as having plural forms and case endings, like *herungum* ‘praises’, a dative plural, in (10).

- (10) Hi wurdon þa ealle þurh þa wundra onbryrde, and on godes
 they became then all through the miracles excited and in God-GEN
herungum hi sylfe gebysgodon
 praises-DAT they themselves busied
 ‘They then all became excited because of the miracles and busied
 themselves in God’s praises’

<ÆLS (Sebastian) 148>¹

This etymology is provided in (11):²

- (11) *to* (preposition) + *ber-* (verbal stem) + *-anja* (derivational suffix) + *-i*
 (dative sg) → Common Germanic **to beranjōi*, OE: *to berenne*, ME:
to beren/berē, PDE: *to bear*

The etymology of the bare infinitive is usually given as (12) (e.g. Szemerényi 1996: 325):

- (12) PIE: **bher-o-no-m*
bher- (verb root) + *-o-* (thematic vowel) *-no-* (nominalising, deriva-
 tional affix) + *-m* (nom/acc neuter)
 → OE form *beran*

Although the etymology in (12) is ambiguous as to the case of the form that was fossilised in place, an accusative makes sense as the case originally used

¹ The reference to an OE text enclosed in < > follows the system of short titles as employed in Healey and Venezky (1980) (in turn based on the system of Mitchell *et al.* 1975, 1979). It is identical to the TEI reference in the Toronto *Dictionary of Old English Corpus* (DOEC), which means that line numbers refer to the beginning of the sentence rather than the line in which the relevant structure occurs.

² I am indebted to the late Dirk Boutkan, then – 1995 – at the Department of Comparative Linguistics of Leiden University, for the etymology in (11).

as a purpose expression after a verb of motion (GOALS are apparently expressed by accusatives in earlier stages of Indo-European languages, cf. Latin *Romam* (acc) *ire* ‘go to Rome’). This is interesting in view of the fact that the niche from which the *to*-infinitive sprang was also an expression of purpose, the *to*-PP. This means that the bare infinitive may well have traversed the same developmental path as the *to*-infinitive, only at a much earlier time.

There is no evidence of any other prepositions taking an infinitive as complement apart from *to*, or of an infinitive without *to* being used as subject or object in OE. The earliest function of the *to*-infinitive appears to have been as purpose adjunct, as in (13), where it is conjoined with a *to*-PP, also expressing purpose. Neither the *to*-PP nor the *to*-infinitive (both in bold in (13)) are arguments of the higher verb *undon* ‘undo’, whose arguments are *he* ‘he’ and *his muð* ‘his mouth’. (The *-anne* in *wurðianne* in (13) is a common variant of *-enne*.)

- (13) þæt he [...] mihte [...] undon his muð **to wisdomes**
 that he might undo his mouth to wisdom’s
spræcum, (*to*-PP) and **to wurðianne**
 speeches and to praise
God (*to*-infinitive)
 God
 ‘so that he [...] could [...] open his mouth for words of wisdom, and to praise God’

<ÆHom 16, 184>

The counterpart of the *to*-infinitive in Gothic, the *du*-infinitive, is only attested in the function of purpose adjunct (Köhler 1867). The fact that the *to*-PPs expressing purpose adjuncts in OE invariably contain nominalisations of action nouns – *spræc* ‘speech’ in (13) is related to *sprecan* ‘speak’ – supports the hypothesis that the form that gave rise to the *to*-infinitive did so, too. The *to*-infinitive was, at first, a *to*-PP which contained an action noun created by the derivational suffix *-anja*. Just like *-ungl-ing* of the gerund, *-anja* was reanalysed at some point as inflection. As inflection is not category-changing, the verbal stem remains verbal, and the form becomes part of the paradigm of the verb. All non-finite forms in Germanic ultimately derive from formations that contained derivational suffixes and only came to be considered part of the verbal paradigm at a later stage (see e.g. Ringe 2006).

The *to*-PP, then, is the niche in which the *to*-infinitive first appeared. The preposition *to* governs the dative, and this is the case of the NP inside

the *to*-PP *to wisdomes spræcum* in (13), and of the fossilised inflection of the *to*-infinitive. That the case-ending is fossilised is clear from the behaviour of the *to*-infinitive in OE, and the behaviour of the *du*-infinitive in Gothic. Verbal stems inside nominalisations cannot assign accusative case to their objects; their objects have genitive rather than accusative case, like *wisdomes* in (13) and *godes* in (10).

The *to*-infinitive is a clause by the time of OE. The *to*-infinitive in (14a) has a stranded preposition *mid* ‘with’, while the *to*-PP in another version of the same passage, in (14b), does not.

(14) eall swa hwæt swa mihton beon gesewene lustfullice . . .
 all so what so might be seen desirable
 ‘whatever might appear desirable . . .’

a. þone lichaman mid to gereordianne
 the-ACC body-ACC with to nourish
 ‘to nourish the body with’

<GD (2) C 13.128.35>

b. to þæs lichaman gereordunge
 to the-GEN body-GEN nourishment-DAT
 ‘for the body’s nourishment’

<GD 2 (H) 13.128.32>

Stranding can only take place in clauses, not in phrases, so that the *to*-infinitival constituent must be a clause, and the *to*-infinitive itself a verb.

Both gerund and *to*-infinitive, then, appear to have developed out of nominalisations to become clauses. Unlike the bare abstract noun as in (1), which constituted the initial niche for the gerund, the *to*-infinitive did not start out as a complement to verbs but as an adjunct, so before we reach the stage that we can chart the *to*-infinitive’s progress through De Smet’s stages of *narrow paradigmatic analogy*, *semantic analogy*, and *indirect paradigmatic analogy*, we will need to discuss the jump from adjunct to argument.

6.4 From Adjunct to Verb Complement

There are a number of other historical examples of adjuncts being reanalysed as arguments, i.e. complements, of verbs. One example is provided by De Smet (2013) in his discussion of another form in *-ing*, the present participle. Example (15) is an adverbial clause from eModE.

- (15) Up, and to the office betimes, and there all the morning very busy, **causing papers to be entered and sorted**, to put the office in order against the Parliament.

(PPCEME, 1666 *The Diary of Samuel Pepys*; De Smet 2013: 115)

After some verbs and adjectives, this adverbial clause was reinterpreted as a complement, i.e. as a constituent that expressed an argument of the higher predicate, as in (16).

- (16) He was busy sorting a sheaf of letters.

Busy in (15) is complete; its single argument is catered for (by the implicit first person of the diarist), and the clause after the comma can be deleted without affecting the sense of *busy*. The *ing*-clause in (16), however, is a complement – an integral part of the clause which cannot be deleted without affecting the sense of *busy*.

Although being busy, happy, or tired is complete in themselves as descriptions of certain states people may be in, there is an additional semantic role lurking in the background: the reason (or SOURCE) why they are busy, happy, or tired. The present participle clause originally described the circumstances in which the state arose. These circumstances need not be the SOURCE, but the implication must often have been that they were, and in time this led to the reinterpretation that the participle clause was a complement (De Smet 2013: 121).

Another example of an adjunct being reinterpreted as a complement in a similar process of pragmatic implicature is provided by López-Couso (2007), who charts the development of the conjunction *lest* (OE *þy las* (*þe*), ME (Middle English) *the lesse the, thi les the, lest*). This connective originally meant ‘so that not’, and introduced clauses of negative purpose. It was often used with verbs meaning ‘fear, dread’, and, as with *busy*, the inference that the clause following such verbs would explain what people were afraid of meant that *lest*-clauses started to be used interchangeably with *that*-clauses after such verbs (López-Couso 2007: 21). See (17) below, and for an overview of the phenomenon, see López-Couso and Méndez-Naya (2015).

- (17) but bycause this texte of sayncte Paule is in latyn, and husbandes comunely can but lyttell laten, I fere **leaste** they can-not vnderstande it. (Cf.: *I fear that they cannot understand it.*)

(HC, 1534 Fitzherbert, *The Book of Husbandry*, 99;

López-Couso 2007: 14)

Such a change in status of the infinitive, from adverbial clause to complement clause, can be put to the test, as there are syntactic operations

that only work if a constituent is an argument of the verb, i.e. a complement, and not if it is an adjunct. In (18), a constituent – in bold – has been moved out of a *to*-infinitive, to make a *wh*-question (see Los 2005: 14).

- (18) **On hwilcum godum** tihst þu us to gelyfenne?
 in which gods urge you us to believe
 ‘In which gods do you urge us to believe?’

<ÆLS (George) 148>

On hwilcum godum ‘in which gods’ cannot be an argument of the higher verb *tihst* ‘urge’ in (18), as this verb is not attested with *on*-PPs; it does, however, fit the complementation pattern of the verb *gelyfan* ‘believe’ (‘believe in something’), which suggests that *on hwilcum godum* has been fronted out of the *to*-infinitive *to gelyfenne*. This indicates that *to gelyfenne* is a complement, an argument of the verb *tihst* ‘urge’ and not a purpose adjunct.

Tihst in (18) is from *tyhtan* ‘urge’, a member of a set of verbs in OE with meanings of ‘persuade, urge’. Some thirty-nine OE verbs of Persuading and Urging can be found with the subcategorisation frames in (19).

- | | |
|---------------------------|---|
| (19) Semantic roles: | AGENT, THEME, GOAL |
| Subcategorisation frames: | NPACC (THEME), <i>to</i> -PP (GOAL) |
| | NPACC (THEME), <i>to</i> -infinitive (GOAL) |
| | NPACC (THEME), subjunctive clause (GOAL) |

Note that the GOAL-argument in (19) takes the same three forms as the purpose adjunct in OE (and in Gothic; Köhler 1867: 451), i.e. *to*-PP, *to*-infinitive, and subjunctive clause, showing that these GOAL-arguments derive from purpose adjuncts.

We have now arrived at the point in which the *to*-infinitive has established itself as a possible verb complement. The next section reviews the scenario of its subsequent spread as proposed in Los (2005) against the background of the four stages De Smet identifies for the gerund.

6.5 The Spread of the *To*-Infinitive as Verb Complement

6.5.1 Stage I, Narrow Paradigmatic Analogy: Verbs of Spatial Manipulation

Many of the verbs of Persuading and Urging derive etymologically from verbs of spatial manipulation, and have basic meanings like PDE *force* in *They forced the ship to the shore*; this probably explains the accusative case of the THEME, as the deepest meaning is that of some inanimate object being

pushed into a certain direction. This inanimate object was extended to human beings, as is also possible with PDE *force* (which has an *into*-PP in PDE rather than the *to*-PP of OE) – see (20) and (21).

(20) German Says Hypnotist Forced Him Into Crime.

(*New York Times* headline, 27 February 1947)

(21) A freak injury forced him into retirement.

Note that the *into*-PPs in these PDE examples contain action nouns, like the *to*-PP frame in OE in (19) (see the discussion of example (13) above). As in the OE *to*-PP frame, the implication is that it is the human object that is forced to be the AGENT of these actions. Note that these *into*-PPs can be rephrased as *to*-infinitives: (20') *The hypnotist forced him to commit a crime*, (21') *A freak injury forced him to retire*. *Into*-PPs play an important role in the competition between *to*-infinitive and gerund, from eModE to the present day (Rudanko 2015).

The *to*-infinitive developed into a verbal expression as a special case of the *to*-PP in this subcategorisation frame, much like the gerund emerged as a verbal expression as a special case of the bare abstract noun after verbs like *love*, *like*, *hate* (see (1)–(2)). This is De Smet's stage of *narrow paradigmatic analogy*.

6.5.2 Stage II, Semantic Analogy: Verbs of Firing Up

Apart from spatial manipulation verbs, the thirty-nine OE verbs of Persuading and Urging also contain a second coherent 'family' of verbs. Their etymology indicates core meanings like 'fire up, set fire to, inflame'; examples are *onelan* and *ontendan*. It is unlikely that they could take *to*-PPs in these meanings, and they probably acquired the frames in (19) only after they had extended their meanings metaphorically to 'fire someone up, inspire someone to do something'.

Both the *to*-PP and the *to*-infinitive must have appeared as complements with these verbs on the basis of these new metaphorically-extended directive meanings. This is entirely parallel to *semantic analogy*, Stage II of the spread of the gerund.

6.5.3 Stage III, Indirect Paradigmatic Analogy: Verbs of Commanding and Permitting

The *to*-infinitive may then have spread to groups of verbs that are also not attested with a *to*-PP in OE, but have a similar directive meaning – the

verbs of Commanding and Permitting. These verbs derive from core meanings of 'give' – the RECIPIENT receives a permission or an order, cf. PDE examples (22a) and (22b).

- (22) a. Toy libraries and other sharing schemes allow [_{NP}children]
 [_{NP}access to a large variety of toys].
 (OED, 1990 *Lifestyle* Summer 28/2)
- b. That reminded him to order [_{NP}Heathcliff] [_{NPa} flogging], and
 [_{NP}Catherine] [_{NPa} fast from dinner or supper].
 (1847 Emily Brontë, *Wuthering Heights*, Penguin 87)

The three-place subcategorisation frames in OE of these verbs are as in (23).

- (23) Semantic roles: AGENT, RECIPIENT, THEME
 Subcategorisation frames: NP_{DAT} (RECIPIENT), NP_{ACC} (THEME)
 NP_{DAT} (RECIPIENT), *to*-infinitive (THEME)
 NP_{DAT} (RECIPIENT), subjunctive clause
 (THEME)

A minority of the verbs of Permitting and Commanding are also found with two-place frames, one of which is an Accusative and Infinitive (AcI) construction with a bare infinitive. There is a semantic difference between the role of the NPs in such an AcI-construction and in an NP_{DAT}+*to*-infinitive construction: the RECIPIENT of the permission or command has greater freedom of action in the latter construction in that he or she may choose not to carry out the action expressed in the infinitival complement. Another difference is that the AcI-construction does not entail that any communicative act took place between the issuer of the command or permission and its executor; the accusative does not denote a RECIPIENT or ADDRESSEE, but an executor of the command. The AcI-construction, then, is much more akin to the complement of causatives, and this is a natural development for predicates with meanings of commanding and permitting, as noted by Royster (1918):

Causation may be euphemistically concealed in permission: it is represented by the allowing-causing verb that a desire to do something arises in the consciousness of the secondary actor, and that someone who has authority over him grants him permission to do the thing he wants to do; as a matter of fact, the desire to have something done originates with the one who has power over the will and act of the performer. The performer's attitude toward the act is, in reality, as vague and uncertain as it is represented to be by the causative verb; but it is formally and politely represented as being desirous of bringing about the act.
 (Royster 1918: 88)

These politeness mechanisms may at least partially explain why some verbs of Commanding and Permitting occur with both two-place and three-place constructions. *Letan* 'let', which is not found with a *to*-infinitive but with a bare infinitive in an ACI-construction, derives from a form that must have meant 'let go, neglect, allow to happen', rather than an explicit granting of permission requiring a RECIPIENT, but acquired strong causative connotations by the time of OE. For the other causative verb, *don* 'do', I argued in my PhD dissertation that the ACI-construction in OE after this verb typically expresses the more causative end of the scale, the 'peremptory command' rather than a request or suggestion (Los 1999: 187–92). Royster notes that the use of the ACI-construction after such verbs often, although not invariably, implies an entailment relation that the act expressed by the infinitival complement will be performed, unlike the ditransitive NP_{DAT}+*to*-infinitive construction or NP_{DAT}+*that*-clause complement. This co-existence of three- and two-place argument structures can be compared to the three- and two-place uses of verbs like *allow*, *permit*, and *order* in PDE, as in (24a) and (24b).

- (24) a. The general ordered his soldiers to blow up the bridge.
 b. The general ordered the bridge to be blown up.

(Cf. Postal 1974: 318)

If causatives are a natural development from verbs of Commanding and Permitting, these verbs are themselves also the outcome of semantic shifts. I argued in Los (1999: 172) that the semantic shift that made them into verbs of Commanding is the result of Politeness mechanisms. Commands are potential Face-Threatening Acts (Brown and Levinson 1987); hence often create cycles in which there is a continual search for new euphemisms to express obligation or commands. Direct directives perform the command baldly, without considering the addressee's Face, while indirect directives satisfy the addressee's negative Face wants, i.e. the addressee's desire to be unimpeded in his freedom of action (Brown and Levinson 1987). Such indirect directives often take the form of requests or suggestions, which will be felt – at least initially – to be more polite, in that the felicity conditions originally attached to them allow the addressee (the RECIPIENT) greater freedom to reject or ignore the obligation. In a survey of the origins of directive verbs in English, Lau (2015: 8) notes that the felicity conditions of requests and commands overlap, as both Speech Acts have the following conditions: (i) The requested act is a future act of the hearer/addressee (H); (ii) H is able to do the act and the speaker (S) believes so; (iii) S sincerely wants the act to be done by H; (iv) S has the intention to attempt to get H to do the act (Austin 1962; Searle 1969: 66). The only

difference is that commands have an additional felicity condition, which is that S is in a position of authority over H. If used frequently, the assumptions underlying expressions for requests will in time become those of commands (Traugott 1972: 100), and new euphemisms will have to be found.

Requesting is one of the typical meanings from which verbs of Commanding develop. Of the other typical meanings identified by Lau (2015), *pushing* takes us back to the verbs of spatial manipulation that gave rise to some of the verbs of Persuading and Urging, while *calling* (cf. OE *hatan*) represents the outcome of a pragmatization: calling somebody to come over is usually done for the purpose of directing that person to do something, and this purpose seems to become an entailment. The other meanings – *giving* or *offering*, *desiring*, *being aware*, *causing others to be aware*, *expecting* – all seem to stem from addressing the felicity conditions of a directive speech act, which is a favourite strategy for creating indirect directives (cf. the famous ‘request’ *Can you pass the salt?*, which addresses the felicity condition that H needs to have the ability to perform the act). In OE, the meanings of giving or telling are much to the fore, which explains the ditransitive frame NP_{DAT} (RECIPIENT), NP_{ACC} (THEME) of (23). The reconstructed ancestor of the core lexeme underlying *bebeodan*, *beodan* ‘command’, and *forbeodan* ‘forbid’, Proto-Germanic **beudō*, is connected to a Proto-Indo-European lexeme that must have meant ‘observe’ and acquires meanings of ‘point out, warn’ in Germanic and Celtic, and then ‘order’ (Lehmann 1986: 30); but note that ‘offer’ is one of the meanings given for *bebeodan* and *beodan* in Bosworth and Toller (1882–1898, 1908–1921), as well as in the *Dictionary of Old English* (DOE), for both verbs given as the C-meaning, and is still the core meaning of cognates *bieten* in Modern German and *bieden* in Modern Dutch. *Dihtan* ‘direct’ is a loan from Latin *dictāt-*, a past participial stem of *dictare*, itself a frequentative of *dicere* ‘say, tell’ (OED, *dight*). *Wissian* ‘direct’ is formed on the adjective that developed into PDE *wise* (OED, *wis*) as a causative formation ‘make wise’, hence ‘tell’.

The etymologies of verbs of Permission show various semantic origins (OED) but do not appear to address felicity conditions. *Aliefan*, *liefan*, and *lofan* are all derived from a root meaning ‘leave, permission’ (and, at an earlier stage, ‘approval’, cf. the meaning of the related PDE noun *love*); *sellan* ‘give, grant’ similarly derives from a root meaning ‘gift, delivery’. The etymologies of *tiddian* and *ðafian*, both meaning ‘grant’, are unknown.

There are some twenty OE verbs with meanings of ‘command, permit’ that appear with the frames in (23), but not with purposive *to*-PPs, so that the appearance of the *to*-infinitive here represents an extension into new

territory, beyond the distribution of its earliest model. What appears to have happened is that the new non-finite expression has moved into the realm of the ‘dependent desires’: expressions of potential, non-actuated, irrealis complements after verbs with meanings of commanding, allowing, promising, intending, hoping, trying, and the like. This represented a major gearshift for the distribution of the *to*-infinitive to a whole raft of new verbs: extension through *indirect paradigmatic analogy*. Like the gerund extending to verb groups that did not include a single member that ever collocated with bare abstract nouns, the *to*-infinitive moves to verbs that were never found with a *to*-PP, and did not share the same meaning as the original set of verbs of Persuading and Urging.

6.5.4 *Stage IV, Broad Paradigmatic Analogy: To-Infinitives as the Expression of ‘Dependent Desires’*

The original sense of direction of the preposition *to* allowed the action noun within a *to*-PP to refer to actions and events that are in the future, which was a good fit with the purpose adjunct, as such adjuncts referred to future GOALS. The GOALS of verbs of spatial manipulation when applied to people rather than to inanimate objects are more in the nature of directives: pressure is brought to bear on people to perform an act. GOALS of directives can still be described as being in the future, but the focus is probably more on the fact that they are as yet unrealised. This is the meaning that takes both the *to*-PP and the *to*-infinitive to the irrealis domain of the subjunctive – finite clauses that are the complement of verbs with meanings of fearing, promising, ordering, hoping, expecting, or insisting. All of these verbs share a meaning component of desire (on the part of some AGENT in the higher clause), which is why Ogawa (1989) refers to these complements as ‘dependent desires’.

In PDE, the preferred expression of ‘dependent desires’ is a *to*-infinitive, but in OE it is a subjunctive clause; the *to*-infinitive was found after the same verbs but with a low frequency. It is in ME that these frequencies flip (Los 2005; see also Rohdenburg 1995 for data on eMODE). Adjectival predicates of the type *be crucial/important/vital* and the like see similar shifts, but somewhat later than the verbal predicates (Van linden 2010).

The diffusion of the *to*-infinitive from verbs of Persuading and Urging, where its model was the *to*-PP, to verbs of Commanding and Permitting, where this model was not available, allowed the *to*-infinitive to acquire a more abstract meaning, very similar to that of the subjunctive clause. The subjunctive clause may have provided a new model, so that the *to*-infinitive started to appear with verbs that not only had no *to*-PP but

also no directive meaning; they were verbs of intention with meanings of intending, hoping, trying, promising – some seventy-five verbs in all, of which only a handful have survived the large-scale replacement of native words by French loans in ME (i.e. *alon-drædan* ‘dread’, *ceosan* ‘choose’, *deman* ‘condemn’, *earnian* ‘deserve, earn’, *forsacan* ‘refuse’, *giernan* ‘yearn’, *leornian* ‘learn’, *onscunian* ‘shun’, *secan* ‘seek’, *swerian* ‘swear’, *ðencan* ‘think, intend’, and *understandan* ‘understand, manage’). This is parallel to De Smet’s stage of *broad paradigmatic analogy* in that there is a broad association between *to*-infinitives and subjunctive clauses rather than between *to*-infinitives and *to*-PPs. Like gerunds at this stage, *to*-infinitives have achieved functional equivalence with clauses.

That this stage was reached already in OE is clear from a comparison between manuscript C of the ninth-century OE translation of *Gregory’s Dialogues* and manuscript H, a late tenth-/early eleventh-century revision (see Yerkes 1982). H systematically replaces subjunctive clauses expressing ‘dependent desires’, as in (25), with *to*-infinitival clauses, as in (26). More detail can be found in Los (2005: 179–89).

- (25) [...] Dauid, þe gewunade, þæt he hæfde witedomes
 David who was-wont that he had-SUBJ of-prophecy
 gast in him
 spirit in him
 ‘[...] David, who was wont, that he had the spirit of prophecy in him’
 <GD I (C) 4.40.24>

- (26) [...] Dauid, þe gewunode to hæbbenne witedomes gast
 David who was-wont to have of-prophecy spirit
 on him
 in him
 ‘[...] David, who was wont to have the spirit of prophecy in him’
 <GD I (H) 4.40.22>

6.6 The Replacement of Native Directive Verbs by French Loans

The wholesale replacement of the English lexicon by French loans in the wake of the Norman Conquest is particularly evident in the directive verbs; of the thirty-nine verbs of Urging and Persuading in OE presented in Los (1999: 154–6), only *bid* and *set* make it into PDE, although *biegan* ‘cause to bend, compel’, *drefan* ‘excite’, *gremian* ‘provoke’, *halsian* ‘entreat, adjure’, *hatan* ‘order’, *læran* ‘teach’, *laðian* ‘summon, invite’, and *niedan* ‘urge’ persist for a while as *bey*, *dreue*, *greme*, *halse*, *hight*, *lere*, *lathe*, and *nede* (*OED*), respectively; and native *driven* ‘drive’, *spurren* ‘spur’, *steren* ‘stir,

move', and *warnen* 'warn' start to occur with the NPACC (THEME) + *to*-infinitive (GOAL) frame in ME. Ultimately, the great majority of these lexemes are ousted by French loans like *encourage*, *force*, *incite*, *persuade*, *provoke*, and *urge* as verbs of Persuading and Urging.

Of the sixteen OE verbs of Commanding and Permitting in Los (1999: 171),³ only *do*, *forbid*, *let*, *sell*, and *teach* have survived, although not all of them with their OE directive meanings. *Liefan* and *aliefan*, both meaning 'allow', *dihtan* and *reccan*, both meaning 'direct', *tiðian* and *ðafian*, both meaning 'grant', persist for a while as *leve*, *dight*, *rech*, *tithe*, and *thave*. Native *polienthol* (OE *polian* 'bear, suffer') comes to mean 'allow' in early ME and as such occurs with the NPDAT (RECIPIENT), *to*-infinitive (THEME) frame, while native *maken* comes to be used as a causative, with an AcI-construction.⁴ The French loanwords *allow*, *command*, *order*, *permit*, and *suffer* take over as the favourite verbs of Commanding and Permitting in the course of ME.

The influx of borrowings does not disturb the original arrangement of two sets of verbs, each with their own sets of subcategorisation frames, and, even more remarkably in the face of the loss of case-marking, the basic distinction between the two groups survives up to the present day. Even though a verb like *persuade* is a French loan, it takes the same three expressions as GOAL argument as its OE counterpart *tyhtan*: finite clauses, purposive PPs (although with *into* rather than *to*), and *to*-infinitives. Like *tyhtan*, it does not have a two-place variant (**He persuaded the Town Hall to be demolished*). Its purposive *into*+gerund complements in fact become a new arena for competition, as part of what has been called the Great Complement Shift (Rohdenburg 2006a; Vosberg 2006; Rudanko 2012). *Into*+gerund complements are particular favourites with newer verbs of Persuading and Urging, like *bully* and *coax*; see particularly Rudanko (2015: 83ff.). The *into*+gerund complement is not found with verbs of Commanding and Permitting; and these verbs continue to have two- and three-place variants, although the two-place variants are Small Clauses (*He ordered them pardoned*) or *to*-infinitival complements (Exceptional Case-Marking (ECM) construction: *He ordered them to be pardoned*), rather than bare-infinitival AcI-constructions.

³ Subtracting the four verbs that have dual membership (exhibiting both argument structures of (19) and (23)), i.e. *biddan*, *hatan*, *leran*, and *wisian*; see Los (1999: 195–203).

⁴ This verb takes a *to*-infinitive in PDE when passivised, on the model of the causative two-place variants of the verbs of Commanding and Permitting that develop in ME; the most likely reason is that the accusative NP in an AcI-construction does not allow passivisation (cf. *I let him get away!***He was let get away*; *I saw him cross the road!***He was seen cross the road*).

6.7 Stage V: Verbs of Thinking and Declaring

Towards the end of the ME period, the *to*-infinitive starts to appear with a subject of its own instead of a PRO subject controlled by the subject or object of the higher predicate, the ECM-construction, as in (27).

- (27) 49 per cent of women and a surprising 32 per cent of men reported that they were virgins at marriage. In spite of this, 79 per cent of [the] . . . men believed [_{subclause} **their wives** to have been virgins when they married].
(*MicroConcord Corpus*)

Their wives in (27) receives a semantic role from the predicate ‘be virgins’ rather than from *believe*. The verbs that allow this construction constitute a distinct group, with meanings of ‘thinking or declaring something to be the case’; the *to*-infinitival clause expresses a proposition rather than a dependent desire.

The rise of the *to*-infinitival ECM-construction has been discussed extensively in the literature, e.g. Zeitlin (1908), Bock (1931), Jespersen (1940), Warner (1982), Fischer (1989, 1990, 1992), primarily around the question of it being due to Latin influence, or a native construction, i.e. an extension of the two-place variant that may appear with verbs of Commanding and Persuading, as in (24b), which may itself be the product of another extension, i.e. of the Small Clause (*He ordered them (to be) pardoned*). Although assuming Latin influence offers a solution to the question why the construction appears after verbs of Thinking and Declaring, it is at odds with the fact that the first examples of the construction with these verbs do not occur in translations from Latin (Dreschler 2015: 160–9). Drawing on Warner’s concept of minimal alterations, Dreschler (2015: 169) suggests that the passive ECM represents only a minimal alteration from another existing construction, the *to*-infinitival postmodification of past participles (see (28)).

- (28) & wes **iwunet** ofte to cumen wið him to his in
and was accustomed⁵ often to come with him to his lodgings
& ieseon his dohter
and see his daughter
‘and was often in the habit of coming with him to his lodgings to see
his daughter’
(c1225(?c1200), cmjulia,96.12; Dreschler 2015: 176)

⁵ Dreschler glosses *iwunet* as ‘wont’, which is of course its PDE reflex; I have changed it to ‘accustomed’ to highlight the fact that *iwunet* is actually a past participle, whereas PDE *wont* is usually labelled an adjective (as for instance in the *OED*).

Although Dreschler calls this a ‘fixed adjectival construction’ (2015: 176), in which such passive participles appear ‘to have lexicalized into a fixed construction where the status of the passive participle as verbal is no longer clear’ (2015: 176), she still thinks they are relevant because they provide a template for the emerging ECM, because of their frequency. This would mean that we should not be looking at reanalysis as the only source of the construction, but also at constructions as in (28), where the paradigmatic analogy is with past participles rather than with verbal constructions. Past participles make sense of a striking feature of the ECM with verbs of Thinking and Declaring: from its earliest emergence, passives are much more frequently attested than actives (Warner 1982; Fischer 1994a). Some verbs, like *say*, *repute*, and *rumour*, can only occur in the passive and not in the active at all (Noël 2001: 257–9). Paradigmatic extension from the adjectival construction finds some support in suggestions to take the passive construction as primary (Noël 2008), as a constructional template with a meaning of its own (cf. Wierzbicka 1988: 47–8; Visconti 2004), as a dedicated information-packaging construction (Ward *et al.* 2002: 1365), and as derived paradigmatically on the model of another construction, rather than transformationally (as in Quirk 1965, who suggests the model is *he is known to be careful*).

The fact that the ECM represents a break in the diffusion from one class of verbs to the next is supported by a break in the semantics: the earlier *to*-infinitival complements expressed ‘dependent desires’, i.e. included an element of volition, but this is not true of the ECM-construction; even Wierzbicka (1988: 98) has to concede that there are *to*-infinitival complements that do not encode ‘wanting’ but ‘awareness’, and her attempt to find a unifying semantics for the two (Wierzbicka 1988: 105–6) is not persuasive (see also Palmer 1990: 230–1).

The remaining question is why the adjectival construction was paradigmatically extended to this particular set of verbs in only English, and not in its West-Germanic cousins, which have analogues of (24a) and (28), but not of (24b) or (27). Mair (1990: 180) suggests that the relevant point of the passive ECM is that it helps textual coherence, as it allows the link to the preceding discourse to be expressed by a subject. This led me to propose (Los 1999: 324–7) that its rise might be connected to the loss of V₂; V₂ allows links to the preceding discourse, like *this herb* in the OE example in (29), to be expressed as clause-initial adjuncts.

- (29) Be ðysse wyrte ys sæd þæt se hara, ðonne he
 about this herb is said that the hare when he
 on sumura for swiðlicre hætan geteorud byþ,
 in summer because-of great heat faint becomes
 mid þysse wyrte hyne sylfne gelacnað
 with this plant him -self medicates
 ‘About this herb it is said that the hare, when he becomes faint in
 summer because of the great heat, medicates himself with this herb’
 <Lch 1, 114>

PDE might well prefer to fashion *this herb* into a subject: *This herb is said to be used by hares as self-medication*. This preference for expressing discourse links by means of subjects is a new development in English. The quantified study by Dreschler (2015) shows that the emergence of the ECM-passives cannot be linked to the loss of V2, although its later spread, by paradigmatic analogy, can.

6.8 Conclusion

Revisiting the rise and spread of the *to*-infinitive against De Smet’s (2013) account of the rise of the gerund, then, has thrown up remarkable parallels in the progression of the distinct stages in which the expression fanned out from its original niche as a purposive *to*-PP. Of particular interest is the gearshift at Stage IV, *broad paradigmatic analogy*, where so many verbs have started to take the *to*-infinitive as complement that its semantics generalises from encoding a directive complement – an action that someone is urged or commanded to do – to an action that is as yet a non-actuated possibility. This could imply that its semantic bleaching was the result, rather than the cause, of lexical diffusion. These more general semantics, in turn, allow it to appear with an even greater range of verbs, including subject control verbs with meanings of trying, intending, hoping, and the like. It is this matching of the perceived semantics of the complement with the semantics of the higher predicate that gives diffusional change its diffusional character, and explains why a new pattern does not arise in different environments simultaneously but in perceptible stages and gearshifts.

The odd one out in this scenario is the extension of the *to*-infinitival ECM construction to include verbs of Thinking and Declaring. This extension cannot be made part of any natural progression from the previous stages; the model for extension by paradigmatic analogy seems to be an adjectival/participial rather than a verbal construction. Its spread in eModE can be

argued to be a response to a syntactic change, the loss of V2, which had compromised the syntactic options available to encode links to the previous discourse. The passive ECM-construction after verbs of Thinking and Declaring has since become recognised as an information-packaging construction, a non-canonical word order pattern whose primary function is to facilitate the information flow in the clause (Ward *et al.* 2002).