

# The Rise of Positional Licensing

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## 1 Introduction

The transition from Middle English to Modern English in the second half of the 14th century is a turning point in the syntax of the language. It is at once the point when several constraints on nominal arguments that had been gaining ground since Old English become categorical, and the point when a reorganization of the functional category Infl is initiated, whose completion over the next several centuries yields essentially the syntactic system of the present day. From this time on, subjects are obligatory, and they must be placed in Spec-IP position (Hulk and van Kemenade 1995). In the VP, the last traces of OV order disappear (Pintzuk 1991, 1992), the order of direct and indirect object becomes fixed, the first “recipient passives” enter the language (Allen 1995, Ch. 9), and objects cease to be separable from the verb by adverbs or adjuncts. The V2 constraint of Old and Middle English is lost, as topicalized constituents cease to trigger verb-fronting (Hulk and van Kemenade 1995). Concurrently, in the Infl system, the first instances of periphrastic *do*-support begin to replace fronting of the finite main verb (Kroch 1989), and, with the appearance of split infinitives and pro-infinitives, *to* starts to pattern as a non-finite Aux rather than, as in earlier stages, as a prefix marking the infinitive (van Gelderen 1993). All these changes have been dated to the second half of the 14th century, most of them specifically to the period between 1360 and 1380.

From the perspective of traditional grammar, the new syntax of subjects and objects reflects a shift from inflection to word order as the signal of grammatical relations, due to the loss of case and agreement endings through sound change and analogical leveling. As Allen (1986a, 1992, 1995) shows, the relation between the morphological and syntactic changes was rather more complex than such accounts tend to assume. Furthermore, they have nothing to say about the concurrent changes in Infl. There have been several recent attempts to bring these into the historical picture. Hulk and Kemenade 1995 suggest that the status of the functional categories changed in the second half of the 14th century, directly causing the loss of the V2 constraint, and indirectly causing the new requirement that there must be an obligatory nominative subject in Spec-IP.

van Gelderen 1993 attributes a series of changes, including the rise of *do*-support and the reanalysis of infinitival *to*, to the rise of Infl, which she thinks was not present at all as a syntactic category in Old and Middle English.

Each of these proposals is attractive and ties together several phenomena in an interesting way. They are however mutually incompatible in several respects, both with respect to what they assume about the nature and chronology of the changes, and with respect to the way they analyze and explain them. Moreover, they all fall short of providing a single structural motif for the whole complex of innovations that constitute the great syntactic shift of the late 14th century. None of them, in fact, connects the changes in Infl to the simultaneous internal reorganization of the VP.

I attempt the outline of such a unifying account here. It implements the traditional idea that inflectional morphology and positional constraints are functionally equivalent elements of grammatical structure, but using the framework of the more articulated conception of phrase structure that has emerged from recent syntactic research, as well as a theory of licensing and structural case that I have been developing for some years. I believe it offers a framework that does justice to each of the insightful conjectures and observations just summarized, though it differs on several points of historical fact, as will become clear in the course of the discussion.

That there is a relationship between the loss of inflectional morphology and the development of rigid positional constraints is clear from comparative syntax. The most important point about this relationship is that it is not a vague correlation or tendency, as often assumed, but an exceptionless implication, which however holds in one direction only: *lack of inflectional morphology implies fixed order of direct nominal arguments* (abstracting away from  $\bar{A}$ -movement of operators.<sup>1</sup>) The converse is not true, and hardly even a tendency. The unclarity of traditional formulations on this point is probably to blame for the disrepute and neglect into which even the valid half of the implication has fallen in modern theorizing about syntax.

The Germanic languages illustrate both the implication and the failure of its converse. Every Germanic language which has lost case and agreement morphology, whether VO (English, Swedish, Danish, Norwegian) or OV (Dutch, West Flemish, Frisian, Afrikaans), has imposed a strict mutual ordering requirement on its nominal arguments, without changing the headedness of its VP. The order is always that subjects precede objects, and indirect objects (NPs, not PPs) precede direct objects:

- (1) a. German:

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<sup>1</sup> For example, Wh-movement is of course allowed even in languages with rigid word order. Following Zwart (1993:246) and Neeleman (to appear) I also assume that so-called focus scrambling is a case of  $\bar{A}$ -movement. VP-internal scrambling however is meant to be covered by the implicational universal stated in the text.

1. ... dass Jan seinem Vater das Buch gibt.  
... that Jan his father the book gives  
'that Jan gives his father the book.'
  2. ... dass Jan das Buch seinem Vater gibt.
  3. ... dass seinem Vater Jan das Buch gibt.
  4. ... dass seinem Vater das Buch Jan gibt.
  5. ... dass das Buch Jan seinem Vater gibt.
  6. ... dass das Buch seinem Vater Jan gibt.
- b. Dutch (Vikner 1991, Ch. 4, Neeleman 1994, Zwart 1993, 303):
1. ... dat Jan zijn vader het boek geeft.
  2. ... \*dat Jan het boek zijn vader geeft.
  3. ... \*dat zijn vader Jan het boek geeft.
  4. ... \*dat zijn vader het boek Jan geeft.
  5. ... \*dat het boek Jan zijn vader geeft.
  6. ... \*dat het boek zijn vader Jan geeft.
- c. Swedish:
1. ... att Jan ger sin far boken.
  2. ... \*att Jan ger boken sin far.
  3. ... \*att sin far ger Jan boken.
  4. ... \*att sin far ger boken Jan.
  5. ... \*att boken ger Jan sin far.
  6. ... \*att boken ger sin far Jan.

Showing that the converse implication does not hold, several Germanic languages with rich inflection require fixed word order anyway. Icelandic is the best-known case, but not the only one. Grisons Swiss German has the same four-case system as standard German, but allows no scrambling whatever. In Grisons it is neither possible to switch the direct object with the indirect object, as in (2b), nor to switch the subject with either object, as in (2c,d,e), though sentence (2c) could be acceptable as a case of focus scrambling in a context that puts the focus on *Bbuur*.<sup>2</sup>

- (2)
- a. und den het dr dogdor S. em Bbuur de KB erklärt  
and then has the doctor S. the(DAT) farmer the(ACC) AI explained  
'and then Dr. S. explained artificial insemination to the farmer'
  - b. \*und den het dr dogdor S. de KB em Bbuur erklärt
  - c. \*?und den het em Bbuur dr dogdor S. de KB erklärt
  - d. \*und den het de KB dr dogdor S. em Bbuur erklärt

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<sup>2</sup>These data were kindly provided by Andreas Ludwig in consultation with other native speakers of Grisons; see also Smith 1992, 194.

e. \*und den het em Bbuur de KB dr dogdor S. erklärt

Closer investigation shows that the identical positional constraint plays a role in *all* Germanic languages, but relates to case in at least four different ways. In those languages which scramble freely (independently of whether they are VO, as in Yiddish, or OV, as in German) the contextually unmarked “neutral” word order is the same as the fixed word order of non-scrambling languages (again whether VO, such as English and Swedish, or OV, such as Dutch and Grisons).<sup>3</sup> In Grisons, position must harmonize with case, so that the order of arguments is fixed as Agent/Recipient/Theme, as the data in (2) show. In Icelandic, position is fixed but is independent of case; hence the “quirky subject” phenomenon. Finally, in Old English, position and case interact in a complex and systematic way as partly joint, partly independent licensors (see section 5). In the account to be developed here, these systems follow from the respective licensing categories of the languages: structural case is determined only by morphological case in German, by both morphological case and position in Grisons, only by position in Icelandic, and by either case or position in Old English.

I begin by taking a closer look at the English syntactic innovations under discussion, and at how they might be explained and related to each other under various theoretical assumptions. I then summarize the licensing and case theory that I will be presupposing. At the end of the paper I come back to the comparative and typological generalizations just outlined and sketch out how they can be explained in the proposed framework, and how they bring together the syntactic changes that took place in English in the second half of the 14th century.

## 2 The loss of V2 and the obligatoriness of subjects

Hulk and van Kemenade (1995) draw a connection between the loss of Subject-Verb inversion after topicalized constituents and the rise of obligatory nominative subjects in IP. They analyze the first change as analogical and the second as an indirect consequence of the first. They trace the loss of Subject-Verb inversion to a positional difference between pronominal and nominal objects in Old and Middle English. In main clauses, NP subjects followed the fronted verb in C, whereas pronominal subjects, being clitics, preceded the verb:

- (3) a. CP[ XP V IP[ Subject-NP ...  
b. CP[ XP Subject-Pronoun+V IP[ ...

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<sup>3</sup>As far as I know, this generalization was first made explicit by Haider 1993, and it is implicit in a number of earlier works, such as Uszkoreit 1985 and Wechsler 1991.

Hulk and van Kemenade assume that in the form of Middle English that gave rise to the modern language, that of such writers as Wyclif, nominal subjects began to adopt the pattern of pronominal subjects.<sup>4</sup> Of course NPs could not simply join pronouns in cliticizing to the verb according to the pattern in (3b). Rather, cliticized pronoun subjects would have had to be reinterpreted as being *in situ* in Spec-IP, an analysis which in turn implies that the verb then remains in Infl. In this way, (3b) is reanalyzed as (4a). Subsequently, this reanalysis was analogically extended to nominal subjects, causing the verb to remain in Infl after any subject: (4a) is generalized to (4b).

- (4) a. CP[ XP IP[ Subject-Pronoun V ...  
 b. CP[ XP IP[ Subject-NP V ...

After this change, V-to-C movement was restricted to Wh-constructions, where there was an operator in Spec-CP (and where in any case pronouns had always followed the verb). In Old English, when there was no external argument, C had assigned nominative case under chain government to an NP inside the VP, in which case Spec-IP could be filled by a non-nominative constituent. This chain-government mechanism was now lost, and henceforth Spec-IP had to have a lexicalized nominative subject to ensure licensing of I's  $\phi$ -features under Spec-head agreement in IP. Consequently, preposed dative experiencers, formerly in Spec-VP, are reanalyzed as nominative subjects in Spec-IP, and as another effect of this shift, expletive *pro*-drop, which was already rare anyway, was completely lost.

Platzack (1995:206) objects that the reanalysis of (3b) as (4a) is unmotivated: "...the language learner must have experienced a certain number of sentences which unambiguously indicated the presence of verb second, and a bulk of sentences which were structurally ambiguous between a verb-second interpretation and a basic SVO interpretation. It is unclear why the language learners should ignore these unambiguous cases in favour of a particular interpretation of the ambiguous ones." We might add that the idea that learners could be simply confused about the position of pronouns versus NPs in (3) is implausible because the order of object pronouns and NPs has differed systematically at every stage in English and there is no evidence that these differences have been hard to learn or that they have triggered any reanalysis.<sup>5</sup> To make the reanalysis more plausible Platzack posits that not only derived X-Subject-V structures like (3b) were reanalyzed,<sup>6</sup> but also derived Subject-Verb-Object structures like (3a) where XP was the subject. Even if just one of these kinds of ambiguous structures would not have been enough to trigger reanalysis, both of

<sup>4</sup>Kemenade MS suggests that in another dialect, represented by Chaucer, pronouns instead adopted the nominal pattern, presumably through decliticization.

<sup>5</sup>Cf. modern English *I called up the man/\*you*, and Shakespeare's *I know not the man/\*thee* (vs. *I know thee not*).

<sup>6</sup>Here Platzack supposes that the reanalysis is mediated by the disappearance of object clitics, which makes subject clitics harder to interpret.

them together were just too much for learners to handle. However, it is not clear exactly why this extra set of cases should tip the balance in favor of reanalysis. Platzack’s objection that all the unambiguous evidence favored the V2 analysis counts equally against his own proposal; in fact it counts equally against *any* pure reanalysis account of any change whatever. For prior to actual reanalysis, the data will *always* divide that way: some of it will be equally consistent with both analyses and some will positively support the old.

I am aware of three possible answers to this general objection to pure reanalysis as a mechanism of syntactic change. One is to posit some restriction on acquisition which makes the evidence for the old analysis inaccessible to learners. An example of such a restriction (which however is of no use in the case at hand) is Lightfoot’s degree-0 learnability hypothesis, according to which only main clause evidence is accessible to learners for parameter setting. It is not clear that there is a reasonable restriction of this kind that would give the desired results for the case at hand. We would need something like the assumption that only pronouns are part of the “triggering experience”, and that the syntax of NPs is projected from them, but this is obviously false.<sup>7</sup>

The second way to salvage the reanalysis story would be to posit a threshold of frequency which the evidence must exceed in order to be accessible to the learner. This seems to be the implicit assumption behind Platzack’s proposal, in particular. For some evidence which tells against frequentistic threshold hypotheses (as well as against Lightfoot’s degree-0 learnability hypothesis) see Kiparsky (to appear).

A third approach, to my mind the most promising, is to build the appropriate preferences (whether formal or substantive) into the theory, and to view acquisition and change in terms of a push-pull mechanism where preferences, if sufficiently strong, may override available evidence, if sufficiently weak. An example is the Subset Principle (Wexler and Manzini 1987), which posits, on learning-theoretic grounds, a preference for the most restrictive hypothesis. In Kiparsky (1996) I argue that a preference for uniform direction of Th-role assignment lies behind the shift from head-final to head-initial VP in English, Scandinavian, and Yiddish.

Let us set aside for a moment the question why V2 was lost, and ask why that change then triggers the loss of expletive *pro*-drop. Hulk and van Kemenade, who suggest this causal connection, are careful not to speculate on what it might be, emphasizing that it is in any case not a direct one. Indeed, Chaucer, according to van Kemenade MS, represents a dialect that extended the nominal

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<sup>7</sup>The classic reanalysis account of the syntactic change in verbs such as *like* (Jespersen 1927, Lightfoot 1979) actually makes the opposite assumption, that pronouns are *not* part of the triggering experience. According to this story (which is trenchantly criticized by Allen 1986a), preposed indirect objects denoting Experiencers in hypothetical sentences like *þam cyngre licodon peras* “the king liked pears” were reanalyzed as subjects when inflections were lost, a scenario which presupposes that learners ignored the evidence from pronouns.

V2 pattern to pronouns rather than the other way round, yet as far as obligatory subjects are concerned, his language appears to be similar to that of his contemporaries. As a factor contributing to the loss of expletive *pro*-drop, Hulk and van Kemenade point out that by the end of the Middle English period, it had already become so weak that the change in Infl was enough to trigger its complete loss. But then what made expletive *pro*-drop so weak in the first place that this “last straw” was enough to finish it off somehow? One wonders whether the as yet unidentified factor which causes overt nominative subjects to become increasingly frequent in Middle English could not be the same factor that finally makes them obligatory around 1375. I will here put forward a candidate for that factor, which connects the obligatoriness of nominative subjects with the other changes under discussion.

### 3 The rise of I

van Gelderen 1993 agrees with van Kemenade in adopting the Dutch/German style V-to-C analysis for Old and Middle English, but differs in claiming that at this stage the language did not have the functional category Infl in overt syntax. She dates the introduction of this category — T(ense), in her terms — to ca. 1380, and derives from it a series of changes in verb syntax that come into the language at this time. The appearance of split infinitives, pro-infinitives, accusative-and-infinitive constructions, periphrastic *do*, and modals are all analyzed as structural reflexes of this new category.

Split infinitives are one indication that *to* has joined the auxiliaries as a non-finite element of Infl (e.g. *to perfectly know* on the pattern of *will perfectly know*). They first appear in the mid-14th century (Mustanoja 1960:515, van Gelderen 1993:41).<sup>8</sup> This citation from the OED is from ca. 1400:

- (5) to enserche sciences, and **to perfitylly knowe** alle manere of Naturels thinges (*Secreta Secretorum*)

Stranded infinitival *to* conforms to the deletion pattern seen with auxiliaries (which as Warner 1992 shows occurs already in Old English). The first instances are attested in the early 14th century (van Gelderen 1993, 42, Visser 1963-73:1062). The OED’s earliest example is:

- (6) þe soules of synners, . . . þer to take and resseyue so As þei on eorthorne **deserueden to** (*Minor Poems from Vernon MS xxxiii.74*) (14th c.)  
 ‘the souls of sinners, there to be taken and received as they on earth deserved to’

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<sup>8</sup> *For-to* split infinitives are even earlier, but *for* and *to* are probably complementizers (van Gelderen 1993, Ch. 4).

The accusative and infinitive construction with a bare infinitive, presumably a VP complement or small clause construction, existed early with verbs of causation and perception. The *to*-infinitive begins to appear with verbs of saying and believing around the middle of the 14th century, and is widely used from the second half of the 14th century by Wyclif and others (Mustanoja 1960:527, van Gelderen 1993:61).

- (7) Salomon . . . expressith the gretter perel of synne to come bi begrie than to come bi richessis (Pecock, *Repressor* 305) (15th c.)  
'Solomon says that poverty is more likely to lead to sin than wealth is.'

The assumption is that these *to*-infinitive complements are IPs, with the subject in Spec-IP and *to* in I.

Periphrastic *do* appears in prose from about 1400 on, with isolated attestations earlier; in Western and Southwestern poetry it is attested as early as the late 13th century (Mustanoja 1960:603). The date for the emergence of modals is controversial. Lightfoot (1979) argued that they did not become a separate category until the late 16th century, but more recent research has pushed back the date at least to the second half of the 14th century (Warner 1982) and perhaps even to Old English.<sup>9</sup>

Finally, van Gelderen (1993:67) interprets the decline of V2 as a reinterpretation of Old English CPs with V-to-C movement as IPs without V-to-I movement (a reanalysis similar to the one proposed by van Kemenade). Since this again presupposes IP, it could be taken as evidence for the introduction of the category Infl at this time.

In this way van Gelderen brings together an impressive number of seemingly independent changes as instances of a single abstract modification of the grammatical system. The idea that languages differ in which functional categories they project in overt syntax is in tune with the minimalist program, and is receiving some empirical support as work on comparative syntax progresses. Most significantly, perhaps, it opens up for investigation new kinds of causal connections between a language's word structure and its syntax.

However, van Gelderen's argument seems flawed in one important respect. The constructions she discusses show only that Infl is a category of overt syntax in the second half of the 14th century. We cannot conclude conversely from the absence of these constructions prior to that time that the language had no Infl yet. For example, even if we assume that accusative and infinitive constructions must be IPs (which is plausible but would have to be shown<sup>10</sup>) there is no reason

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<sup>9</sup>van Kemenade (199X:156) and Warner (1992, 1993) have suggested that *wile* "will" and perhaps one or two other verbs, such as *sceal* "shall" (van Kemenade) or *must* (Warner), might already be modals in Old English, though both emphasize that the evidence is insufficient to exclude the alternative analysis as main verbs.

<sup>10</sup>They surely are IPs in modern English, but more evidence is needed before we can conclude



why a language *must* have them just because it has IPs. Under the indicated assumptions, the presence of any of these diagnostic constructions can provide at most a *terminus ante quem* for the rise of the category Infl. The actual date of its introduction must be established by different evidence.

This evidence, while it does support van Gelderen’s claim that English changed from an Infl-less language to one with Infl, shows that Infl actually came into the language much earlier. In Kiparsky (to appear) I argue that the introduction of Infl dates to Old English already. For several centuries, English had competing phrase structures, with and without Infl. The decisive change of the second half of the 14th century is that Infl became an obligatory element.

Since the point is crucial, I will first review the issue in comparative Germanic perspective here, before proceeding to present my case for Old English.

Recent studies of the SOV languages German and Dutch have established that they have no overt syntactic V-to-I movement (Reuland 1990, Haider 1993, Zwart 1993, 68, van Gelderen 1993, Ackema, Neeleman, and Weerman 1993). This point was not obvious to begin with, since the finite verb comes in final position in these languages (except of course when it is fronted to C), and the VP is also head-final. In these languages V-to-I movement would therefore be a string-vacuous rightward movement, which was previously assumed to be simply undetectable (Vikner 1991, Rohrbacher 1994). But subtler evidence shows that the verb in fact never moves to I in either Dutch or German. Zwart observes that, if complement clauses are generated in the same position as nominal complements (as would be expected since they bear the same kinds of thematic roles), V-to-I raising would require them to be extraposed to the right periphery of the IP. This extraposition would have to be obligatory, which creates a problem because extraposition is optional elsewhere.<sup>11</sup> Worse, as Haider notes, the assumption of obligatory extraposition is incompatible with coordination data:

- (8) Dass der Mann ihr [weder [sagte, [von wo er komme]], noch [verriet, [wohin er gehe]]]  
‘that the man her neither told from where he came, nor disclosed where he was going’

Here the complements must be inside VP, and the V hence cannot have raised to Infl. Both Zwart and Haider also point out that the strict inseparability of the verb cluster and of the particle+verb combination in verb-final sentences tells against rightward verb-raising to Infl. van Gelderen 1993 makes a similar point, and argues that it holds for Old English as well. But perhaps the most striking argument comes from Reuland’s observation that V-to-I raising predicts

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that they are IPs when they come into the language in late Middle English. For example, they might start out as VPs, which is what Haider 1993 argues they are in German. Split infinitives in the accusative and infinitive construction would be good evidence of IP status.

<sup>11</sup>Moreover, the putatively extraposed clauses might be expected to be islands. This however is a theory-internal argument and not necessarily compelling, as Zwart himself concedes.

non-existing readings for adverbs, on the commonly accepted assumption that their scope is determined by constituent structure.<sup>12</sup>

In Dutch (as in Swedish), the absence of V-to-I movement is quite consistent with the existence of an IP projection in the overt syntax. The verbs of these languages are essentially uninflected, so they would not move to Infl in any case, according to the fairly well supported generalization that V-to-I movement presupposes rich person/number inflection.<sup>13</sup> For these languages, the evidence for or against a syntactic IP would therefore have to come from other facts than verb movement. And these facts show that both Dutch and the mainland Scandinavian languages do have an IP (contrary to van Gelderen 1993, Ch. 2).

The most straightforward argument that Dutch and mainland Scandinavian have an IP in spite of lacking V-to-I movement is that the subject position is obligatorily filled, by an expletive pronoun if necessary.<sup>14</sup>

- (9) a. dat er/\* $\emptyset$  gedanst wordt (*Dutch*)  
           that it       danced    was  
           ‘that there was dancing’  
       b. att det/\* $\emptyset$  dansades (*Swedish*)

As Haider (1993:136,189) also notes, Dutch and Swedish, like English, shows the Definiteness Effect:

- (10) a. dat er  $\left\{ \begin{array}{l} \text{iemand} \\ \text{een jongen} \\ \text{*Jan} \end{array} \right\}$  werkt (*Dutch*)  
           b. att det arbetar  $\left\{ \begin{array}{l} \text{någon} \\ \text{en pojke} \\ \text{*Jan} \end{array} \right\}$  där (*Swedish*)

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<sup>12</sup>This still leaves several descriptive options open. If the finite verb does not merge with Infl in the overt syntax, it must bear inflectional features in the lexicon; it might still move to Infl at LF. The issues here are complex and their very formulation is highly theory-dependent. For present purposes Infl will follow Reuland in assuming that V and Infl merge in the lexicon and constitute a complex category V/I in the overt syntax. Zwart instead posits a left-headed IP in Dutch (cf. Kayne 1994), with covert V-to-I movement at LF. Ackema, Neeleman, and Weerman do away with Infl as a syntactic category altogether, and restrict each lexical category to a single functional projection in the syntax (see also Weerman 1989, p. 81).

<sup>13</sup>As to how rich the overt morphology must be to license V-to-I movement, see Holmberg and Platzack 1988, Roberts 1993, Falk 1993, Rohrbacher 1994. According to Roberts, singular and plural must be overtly marked. According to Rohrbacher, all three persons must be overtly marked. Any of the proposed version of the generalization would draw the distinction between German and Dutch in the way we intend here, so that, if there *were* an Infl in both these languages, we should expect the finite V to move to it in German, and not in Dutch.

<sup>14</sup>When there is a preposed PP or locative adverbial, the expletive subject can be missing, under conditions which differ somewhat from language to language and even from one individual to another. See Falk 1993, especially Ch. 4 and 9.

It is generally assumed that the Definiteness Effect is due to different interpretations being assigned to NPs in Spec-IP and Spec-VP position. In so far as this is correct, the presence and absence of the Definiteness Effect in a language would constitute evidence for the presence and absence of a distinct Spec-IP position, respectively.

Swedish has accusative and infinitive complements with some *verba sentiendi et dicendi* (most often with *anse* “consider” and *påstå* “claim”). These complements are demonstrably IPs. They cannot be CPs because they neither have a complementizer nor undergo verb fronting, and (under standard assumptions) they cannot be VPs with internal subjects because negation and other adverbs adjoined to VP can freely follow the subject.

In a language with full inflection like German, though, the absence of V-to-I movement can only mean that there is no Infl at all. And this is confirmed by the fact that German, unlike Dutch and Swedish, does not require expletives in impersonal passives or in experiencer constructions, except as necessary to safeguard the V2 requirement (Haider 1993),

- (11) a. dass (\*es) getanzt wurde  
 b. Mich friert (\*es).

and does not observe the Definiteness Effect (Bennis 1987):

- (12) dass da  $\left\{ \begin{array}{l} \text{jemand} \\ \text{ein Junge} \\ \text{Jan} \end{array} \right\}$  arbeitet (*German*)

The absence of accusative and infinitive complements with *verba sentiendi et dicendi* in German is consistent with this conclusion.

Haider (1993) concludes from such evidence that Dutch, English, and the Scandinavian languages, but not German, have the syntactic category IP. In this respect, German falls in with other rigidly SOV or predominantly SOV languages with rich morphology (such as most of the older Indo-European languages). If it indeed turns out to be the case that SOV languages lack a syntactic Infl projection, this would support the conjecture that functional projections are always left-headed (a special case of Kayne’s antisymmetry hypothesis).

## 4 IP as an optional category: competing grammars

How does Old English fit in? In this section I will argue (in part summarizing earlier work) that Infl was introduced already in the course of the Old English period, and that grammars with and without IP coexisted from the time verb-fronting first became possible in embedded clauses up to the time

when verb-fronting and VO order became fully obligatory. In this account, the competition between a grammar with Infl and a grammar without Infl takes the place of Pintzuk's competition between an Infl-medial grammar and an Infl-final grammar. It is the change to obligatory Infl which I will argue is part of the major syntactic shift in the 14th century.

That IPs arose already during the Old English period, and competed with Infl-less structures, is shown by several kinds of syntactic evidence.

Old and Middle English clearly have verb fronting both to Infl and to C (van Kemenade 1987, this volume, Pintzuk 1991, Kiparsky 1995, 1996, Kroch and Taylor, MS). The finite verb moves to Infl, and to C after Wh-words and demonstratives like *þa*. Topicalization is adjunction to IP and to CP. For this reason, fronting of the finite verb in Old English is obligatory only after Wh-words and demonstratives (focus elements must be in Spec-CP, so their presence forces a C). Elsewhere the finite verb can remain in final position, a receding option which disappears altogether as the category Infl and VO order within the VP become obligatory. The evidence for V-to-I raising includes: (1) the possibility of V-fronting in subordinate clauses, (2) the position of the finite verb in relation to adverbs, and (3) the licensing of oblique subjects.

If Old English main clauses were IPs unless CP was required by the presence of Wh or some other focus element, then Old English may never have been a strict V2 language in the Dutch/German/Scandinavian sense (Stockwell 1984, Swan 1994, Weerman 1989:234, Pintzuk 1991, Kroch and Taylor MS). At any rate, it permits both V1 and V3 declarative main clauses, and V2 clauses arise in at least two distinct configurations: (1) a focused element in Spec-CP, with the verb in C position after it, (2) a subject (or, in sentences without an external argument, some other constituent) in Spec-IP, with the verb in Infl position after it, a possibility clearly evinced in subordinate clauses (van Kemenade, this volume). Adjoining an adverbial or PP to these two structures in turn yields two distinct types of V3 order.

Another piece of evidence that Old English had IP available as a category is that it had dative subjects, in the sense that oblique experiencers were structurally parallel with nominative subjects (Allen 1986). On our assumptions this at least a *prima facie* indication of Spec-IP positioning (as also assumed by van Kemenade 1992). These dative subjects, like nominative subjects, but unlike objects, trigger deletion of a following coordinated nominative subject:

- (13) a. Ac gode      ne licode na heora geleafleas, ac  
          but god-DAT not pleased not their lack of faith, nor their grumbling, and  
          ∅    asende him to fyr of heofonum (*ÆHom* 21.68)  
          (he) sent      them to fire from heavens  
          ‘But God did not like their lack of faith, not their grumbling, and  
          sent them fire from the heavens.’

- b. þa gelicode ðam gedwolum ðas bisceopes dom, and  $\emptyset$   
 then pleased the heretics-DAT the bishop's sentence, and (they)  
 wacodon ða ðreo niht (*ÆLS* Basil 338)  
 waked-PL then three nights  
 'Then the heretics were pleased with the bishop's sentence, and they  
 stayed awake three nights'
- c. þa scamode þone biscop and  $\emptyset$  nolde him þa his  
 then shamed the bishop-ACC and (he) not-would him-Dat then his  
 costunge geandettan (*GD*, Pref.)  
 temptation confess  
 'Then the bishop was ashamed and did not want to confess his temp-  
 tation to him.'

Experiencer constructions very rarely have expletive *hit* as other types of “subjectless sentences” do. Moreover, after 1200, the former subjects, *if postposed*, are regularly accusative,

- (14) for ðat him ereowe ow  
 for that him-Acc/Dat pitied you-Acc  
 'Because he pitied you'

and it seems that they do not trigger subject-verb agreement (Allen 1995:241-3):<sup>15</sup>

- (15) and ðat hem likede here lodlice sinnes  
 and that them please-Sg their loathsome sins  
 'and that they liked their loathsome sins'

Another subject-like property of oblique experiencers of verbs such as *sceamian* is that they can be controlled, at least in conjoined structures like (16) (Denison 1993, 94):

- (16) oððe forhwy hi ne mægen hiora ma scamian þanne fægrian  
 or why they not may them-GEN more be ashamed than rejoice  
 (*Bo* 68.15)

'or why they may not be more ashamed of those things/themselves than glad.'

Allen shows that these oblique experiencers of *like* and similar verbs became nominative subjects in the second half of the 14th century, the point when nominative subjects became obligatory as already discussed.

Finally, if modals existed in Old English already (see footnote 9), and we assume that verbs which are intrinsically finite and assign no Th-roles are to be assigned to the lexical category Infl, then Infl must have been a category of Old English.

<sup>15</sup>Although, as Allen is careful to point out, there is not enough data to establish this with full certainty.

However, the Infl category cannot have been an obligatory constituent in Old English. As in German, the Definiteness Effect seems to be not categorical, since definite NP subjects evidently occur within VP:

- (17) Ond þa æfter þon þe ðær wæron ða halgan lofsangas & mæssan  
 and then after it that there were the holy praise-songs and masses  
 gefyllede (*Bl* 207.28)  
 finished  
 ‘and then, after the holy psalms and masses were finished (there)’

As far as expletives are concerned, impersonal passives, like experiencer constructions, hardly ever have *hit* if there is a preposed constituent. Compare (18) with (9) and with (11):

- (18) Be ðæm wæs swiðe ryhte gecweden ðurh sumne wisne monn (*CP*  
 of which was very rightly spoken by a certain wise man  
 118.21)

‘About which a certain wise man spoke very truly.’

Weather verbs usually have an expletive subject regardless of V2, but this is true even of German (see Falk 1993 for discussion). The same is true of verbs with extraposed sentential complements:

- (19) a. ðonne hit dazian ongyrneþ (*Bede* 4.10)  
 when it dawn-INF begins  
 ‘when dawn comes’  
 b. On sumre tide hit hazalade stanum ofer ealle Romane (*Or* 3.5  
 In summer time it hailed stones-DAT over all Romans  
 61)  
 ‘In the summertime it hailed stones over all the Romans’  
 c. norþan sniwde (*Sea* 31)  
 from north snowed  
 ‘it snowed from the north’  
 d. Swa hit gebyreð ðæt ... (*CP* 431.27)  
 So it happens that ...  
 e. ðonon cymð oft ðætte ... (*CP* 437.27)  
 Whence happens often that ...

In sum, Old English clearly had a syntactic Infl category, with clear syntactic evidence for V-to-I raising and a Spec-IP subject position, and possibly a few lexical members, the modals. On the other hand, Infl was not obligatory in Old English. The possibility of verb-final main clauses, the absence of an obligatory Definiteness Effect, and the absence of obligatory expletives converge to show that main clauses with no separate Infl projection were still allowed.

Additional evidence for the claim that Old English had competing syntactic systems, one with Infl and the other without, comes from the variability in the

position of the verb in complex sentences (Kiparsky 1995). Pintzuk 1991 had argued that Old English has competing right-headed and left-headed structures both at the IP level and at the VP level. However, she observed that only three out of the four possible combinations are attested, the missing one being what on her terms was left-headed VP with right-headed IP. Thus, “(that) the bishop wanted to lift up the child” has three, not four, possible renderings in Old English, namely (20a-c). The fourth variant, (20d), is ungrammatical, an arbitrary gap under her syntactic analysis:

- (20) a. (þæt) se biscop wolde þæt cild up aheafan.  
 b. (þæt) se biscop þæt cild up aheafan wolde.  
 c. (þæt) se biscop wolde aheafan up þæt cild.  
 d. \*(þæt) se biscop aheafan up þæt cild wolde.

The absence of the fourth combination is explained by the two assumptions already mentioned: (1) that Old English has two competing grammars, one with IP, the other without IP, and (2) that functional categories are always left-headed. The first parameter of syntactic variation is still headedness of the VP, as for Pintzuk, but the second one is now whether IP is syntactically projected or not. In that case, the ungrammatical sentence (20d) would have a right-branching VP nested in a left-branching VP, requiring two grammars to be in force simultaneously. Since code-switching in mid-sentence is in many cases excluded,<sup>16</sup> the analysis offers a natural explanation for the gap.

- (21) a. ... I<sub>o</sub> [ [ ... V ]<sub>VP</sub> t ]<sub>VP</sub>  
 b. ... [ [ ... V ]<sub>VP</sub> V ]<sub>VP</sub>  
 c. ... I<sub>o</sub> [ t [ V ... ]<sub>VP</sub> ]<sub>VP</sub>  
 ... [ V [ V ... ]<sub>VP</sub> ]<sub>VP</sub>  
 d. \*... [ [ V ... ]<sub>VP</sub> V ]<sub>VP</sub>

Several strands of evidence thus converge to show that the category Infl played a role in the overt syntax of Old English, but that it was not obligatory. The structural change in the second half of the 14th century is not that Infl was introduced, but that it became obligatory.

## 5 Case and Licensing

After this review of the late Middle English syntactic shifts, let us return to the question what ties them all together. In the background is the perennial problem of the relation between inflectional morphology, word order, and grammatical

<sup>16</sup>For example, \**Thou knowest yourself* or \**You know thyself* were not used during the period when *Thou knowest thyself* competed with *You know yourself*.

relations. Two very different conceptions of this relation can be found in the grammatical literature.

Typologically oriented grammatical theorizing at least since Humboldt has assumed that word order and inflectional morphology are alternative means of expressing grammatical relations. From this premise, Boas, Sapir, and Jespersen explicitly derive the interesting cross-linguistic prediction that richness of inflection should be correlated with freedom of word order. Traditional grammars reflect this assumption in their standard practice of identifying subject and object by nominative case and/or by verb agreement in languages which have them, and by word order otherwise. The complementarity of rich inflection and fixed word order is here interpreted not simply in general functional terms, but seen as a basic principle of grammatical structure.

For the empirical reasons outlined in the introductory section, this is an overly simplistic picture, which fails to do justice to the fact that the implication is unidirectional, and that languages can combine positional and morphological constraints in several different ways. However, this does not mean that we have to go the other extreme and adopt the view of contemporary formal theories of grammar that there is *no* intrinsic connection between overt morphology and overt syntax,<sup>17</sup> (as opposed to *covert* morphology and *covert* syntax, where theoretical connections are made on every hand, but with unclear empirical import). This tradition privileges configurationality by positing a level of representation at which abstract Case is assigned on the basis of structural adjacency and government relations between the governing head and its dependent. The picture is however clouded by the fact that the order of syntactic constituents relevant to Case assignment is not necessarily identical to their actual order either at PF or at LF, and the abstract Case of an argument is at best indirectly related to the morphological case which it bears at PF — mismatches which are accommodated under Scrambling and LF movement on the syntactic side, and under Spellout on the morphological side. The upshot is that nothing in this theory precludes a language with the morphology of English or Chinese from having the syntax of German or Japanese.

A more constrained approach can be developed along the following lines. We adopt the idea that syntactic argument structure is projected from semantic content (Dowty 1979, Givón 1984, Ch. 5, Jackendoff 1983, Foley and van Valin 1984). Following Bierwisch (1983, 1986, Bierwisch and Schreuder 1992), we assume a level of Semantic Form at which conceptual knowledge is articulated in terms of linguistically determined invariants. This level is distinct from, but interacts with, conceptual knowledge on the one hand, and with syntactic structure on the other. A lexical item is represented at Semantic Form

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<sup>17</sup>Of course, empirical generalizations can be proposed within those theories, such as the connection of *pro*-drop or V-to-I movement to rich inflection, but these are *not* consequences of the theory, but extrinsic conditions added to it.



by an expression in which Th-roles are represented by lambda-abstractors over the variables in the function denoted by the predicate. The semantic role of the variable over which the lambda operator abstracts determines the semantic content of the resulting Th-role, and the variable’s depth of embedding in Semantic Form determines the Th-role’s rank in the Th-hierarchy. For example, three Th-roles are projected in the Semantic Form of the verbs *show*, *paint* and *put*, of which the highest Th-role (the “Agent”, defined as the first argument of CAUSE) is saturated first:<sup>18</sup>

- (22) a. *show*:  $\lambda z \lambda y \lambda x [x \text{ CAUSE } [CAN [y \text{ SEE } z ] ] ]$   
 b. *paint*:  $\lambda z \lambda y \lambda x [x \text{ CAUSE } [y \text{ HAVE-ON } z ] \& \text{ PAINT } (z) ]$   
 c. *put*:  $\lambda z \lambda y \lambda x [x \text{ CAUSE } [BECOME [y \text{ AT } z ] ] ]$

Mismatches between Semantic Form and syntactic argument structure occur in both directions. Elements in Semantic Form which are not projected as Th-roles are *implicit roles*, such as the Agent in a “middle” construction:

- (23) a. *show* (middle):  $\lambda y [x \text{ CAUSE } [CAN [y \text{ SEE } z ] ] ]$   
 b. This house shows (\*customers) well (\*even by incompetent real estate agents).

Semantically, *show* remains a three-place predicate, but in its middle use it is syntactically a one-place predicate. Conversely, there are *improper Th-roles*, which correspond to nothing in semantic structure, but are associated with expletives such as *it* and *there* in syntactic structure:

- (24) a. *rain*:  $\lambda x [RAIN]$                       *It rained.*  
 b. *come*:  $\lambda y \lambda x [y \text{ COME}]$                 *There came a war.*

Argument structure and its articulation by abstract Case features here does the work that is usually assigned to configurational properties at D-structure. Structural cases are relational entities defined by the two cross-classifying features  $[\pm H(\text{ighest}) \text{ R(ole)}]$  and  $[\pm L(\text{owest}) \text{ R(ole)}]$ . These case features play a role at all levels of grammatical structure. In morphology, they are features of case and agreement affixes which they pass on to their stems in accord with general morphological principles and lexicalist constraints. In morphosyntax, they are features of arguments, assigned to them by inflectional case and agreement morphemes and by the structural positions they occupy. At argument structure, they are features structurally assigned to the hierarchical representation of Th-roles, where they define grammatical relations (or equivalently, abstract

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<sup>18</sup>The Semantic Form of nouns and verbs includes in addition a referential argument, which is bound by a functional category (C, I in the case of verbs, D in the case of nouns). The referential argument of a verb, omitted from consideration here, is an event. CAUSE stands for a predicate which denotes, above and beyond simple causation, the direct and continuous participation of the Agent in the event in its scope.

case). The assignment of a Th-role to an argument must be licensed by unification of the Th-role’s abstract case features with the argument’s morphosyntactic case features. Thus, the main work of relating the levels is done without any case-specific correspondence rules. In particular, I reject the current practice of providing formally heterogeneous representations for abstract Cases or grammatical relations/functions on the one hand, and morphological case on the other, and associating them by “spellout” rules of the form “arguments with abstract Case X (or with grammatical function X) are assigned morphological case Y”. This results in a more restrictive theory of licensing, and a principled account of a range of typological generalizations.

Abstract Case is defined by the positive values [+H(ighest) R(ole)], [+L(owest) R(ole)], which are assigned to the Th-roles according to their relative position on the Th-role hierarchy (itself a projection of semantic form).

- (25) a. [+HR] is assigned to the highest role.  
 b. [+LR] is assigned to the lowest role.

Our notion of abstract Case resembles GB’s in that it is a syntactically assigned feature complex, but we construe it in a somewhat different way since abstract Case is not by itself a licensing property, but a set of featurally expressed *constraints* on morphosyntactic case. The licensing property is rather the successful unification (compatibility) of the case features at the different levels, in particular the unification of abstract case and morphosyntactic case.

By (25), the three ordered Th-roles of the verb *show* projected in (22a) (shower, showee, thing shown) are assigned the abstract Case features in (26).

$$(26) \left[ \begin{array}{c} \lambda z \\ [+LR] \end{array} \right] \left[ \begin{array}{c} \lambda y \\ \end{array} \right] \left[ \begin{array}{c} \lambda x \\ [+HR] \end{array} \right] [x \text{ CAUSE } [CAN [y \text{ SEE } z ] ] ]$$

The sole role of an intransitive verb gets both [+HR] and [+LR], and the middle role of a three-place predicate gets neither [+HR] nor [+LR]. The result is an inventory of four abstract structural cases, in Dixonian terms “A”, “S”, “O”, and “D”.

- (27) a. S:            [+HR,+LR]  
 b. O:            [+LR]  
 c. A:            [+HR]  
 d. D:            [     ]

Not explicitly indicated in (26) is the fact that all three Th-roles bear a feature of abstract structural case (say [+SC]), which is subclassified by the features [LR, HR]. For typographical simplicity, this will be tacitly assumed to be present in every bracketed feature matrix that follows, with the absence of structural case thus symbolized by the absence of a bracket.

Because the case features are intrinsically relational, there can be at most one [+HR] role and at most one [+LR] role per argument structure. On the

other hand, a predicate without a syntactically visible role (i.e. an impersonal verb) obviously does not have either a [+HR] role or a [+LR] role. And there can be more than one [-HR] and [-LR] element in an argument structure, or none. Being assigned on a purely structural, hierarchical basis, structural cases cannot be idiosyncratic lexical properties of specific Th-roles, and cannot be specific to particular predicates. The abstract Case feature [+HR] therefore defines the highest syntactically visible Th-role of a predicate, its “subject”. In this way, Th-role reversals, such as a verb “kill” with victim as subject and killer as object, are correctly excluded in principle. This follows from the assumption that the order of  $\lambda$ -abstraction reflects semantic depth.<sup>19</sup> Cases such as *like* and *please* are not instances of such reversal, since *please* obviously has the Semantic Form of a causative.

At the level of abstract Case, the proposed decomposition into features makes it possible to individuate exactly the class of grammatical relations which play a role in syntactic constraints (such as binding, control, and parallelism in coordination). For example, the feature [+HR] picks out “A” and “S” in any language, irrespective of its case system, and thus universally defines the relation of grammatical subject. The features also provide the appropriate representation on which valency-changing operations are defined, which I assume are triggered by verb morphology in the lexicon. Passive affixes demote [+HR], i.e. render them ineligible to bear structural case, in which case the next highest Th-role with structural case receives the feature [+HR].<sup>20</sup>

$$(28) \quad \text{a. } \textit{show}: \left[ \begin{array}{c} \lambda x \\ [+HR] \end{array} \right] \left[ \begin{array}{c} \lambda y \\ \quad \end{array} \right] \left[ \begin{array}{c} \lambda z \\ [+LR] \end{array} \right]$$

$$\text{b. } \textit{show+n}: \left[ \begin{array}{c} \lambda x \\ \quad \end{array} \right] \left[ \begin{array}{c} \lambda y \\ [+HR] \end{array} \right] \left[ \begin{array}{c} \lambda z \\ [+LR] \end{array} \right]$$

In Kiparsky (MS) I argue, primarily on the evidence of ergative languages, that the theory of grammatical relations provided by abstract Case in this sense is superior to that of GB-style configurational theories as well as those of Relational Grammar and LFG.

Morphosyntactic case feature complexes are assigned to maximal projections (NPs or DPs) as follows. Case features percolate in the morphology from affixes to stems, and in the syntax from clitics to their hosts and from words to the phrases they head. Agreement morphology and structural licensing positions confer their case features upon the arguments which are respectively coindexed with them and positioned in them. (These are not case-specific conventions, but

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<sup>19</sup>Another corollary is that “quirky case” is not a lexical association of abstract case, but of morphosyntactic case.

<sup>20</sup>Here and in what follows I list the Th-roles with the highest role on the left, reversing the order of the  $\lambda$ -notation. This is easier to follow because it makes the Th-role schemata agree with the conventional enumeration as well as with the order of arguments in languages with positional licensing.

special cases of general mechanisms by which featural information is distributed in structural representations.) Morphosyntactic case feature values are normally negative, viz. [-LR] and [-HR]. The effect of the feature values [-LR] and [-HR] is to prohibit the arguments that bear them from being assigned the lowest- and highest-ranked available Th-role, respectively. (Positive morphosyntactic case feature values would have the effect of restricting a case or position to a specific role.) The four possible combinations of negative feature specifications give the basic inventory of four structural cases:

- (29) a. [     ]:           nominative (including “absolute”)  
       b. [-HR]:           accusative  
       c. [-LR]:           ergative, genitive  
       d. [-HR,-LR]:       dative, partitive

The same morphosyntactic case features induce a parallel intrinsic classification of agreement and position as well. The familiar type of subject agreement is unspecified (i.e. nominative), but ergative agreement ([-LR]), accusative agreement (normal “object agreement”, [-HR]) and dative agreement ([-LR], [-HR]) also exist. As for position, the feature values are assigned to internal argument positions as follows:

- (30) a. Complement positions are [-HR].  
       b. Non-final complement positions are [-LR].

Specifier positions are then featureless, the positional equivalents of nominative case. I assume further that Spec-IP is the basic licensing position for subjects. Spec-VP can also license subjects, but seems to confer some additional feature specifications. For example, the Definiteness Effect could be descriptively accounted for by assigning Spec-VP the features [+HR, +LR, -SPECIFIC], restricting it to nonspecific indefinite subjects of intransitive verbs. Of course, this is merely a placeholder for the more principled and general account which is ultimately required.<sup>21</sup>

Arguments case-marked in this way get associated with Th-roles case-marked by (25), in accord with the following conditions:

- (31) a. *Unification*: Associated feature matrices must be non-distinct (one must not have a plus value where the other has a minus value).  
       b. *Specificity (Blocking, “Elsewhere”)*: Specific rules and morphemes block general rules and morphemes in the shared contexts.

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<sup>21</sup>Such an account should generalize to other related phenomena, which form a family of restrictions on position and on morphological case involving properties such as animacy and humanness in addition to specificity. They are not restricted to subjects: Turkish has, in addition to its unrestricted accusative case, a [+SPECIFIC] accusative licensing position. On the semantics of specificity and on its role in Turkish object licensing, see Enç 1990.

The combined effect of Unification and Specificity is that each Th-role is associated with argument bearing the most specific (most highly marked) morphosyntactic case that is compatible with the Th-role’s abstract Case. The distribution of morphosyntactic cases follows from their feature composition on the basis of the predicate’s argument structure in accord with Unification and Specificity.

Consider a three-place verb such as *show*. Abstract Case is assigned to the Th-roles by rule [25]. The morphosyntactic cases nominative, dative, and accusative — whether derived morphologically from case or agreement, or syntactically by position as in [30] — have the respective feature specifications [ ], [-HR,-LR], and [-HR]. In a language that has all three of these morphosyntactic case licensers, the constraints in [31] enforce the following association of arguments with Th-roles:

$$\begin{array}{rcccl}
 (32) & \left[ \begin{array}{c} \lambda x \\ [+HR] \end{array} \right] & \left[ \begin{array}{c} \lambda y \\ \phantom{[+HR]} \end{array} \right] & \left[ \begin{array}{c} \lambda z \\ [+LR] \end{array} \right] & \text{Th-roles with abstract Case} \\
 & | & | & | & \\
 & [ \phantom{\lambda x} ] & \left[ \begin{array}{c} -LR \\ -HR \end{array} \right] & \left[ -HR \right] & \text{morphosyntactic case selected}
 \end{array}$$

No other case assignment is consistent with [31] .

Given that the active morphosyntactic case features in English come from position, and in German from morphology, the basic clausal syntax follows: the highest Th-role unifies with Spec-IP position in English and with nominative case in German, the next highest with the second argument position and with dative case, respectively, and so on. Hence we get in English the order *John showed Bill a picture* (Agent – Recipient – Theme). Positional case features thus impose an argument order which is a linear projection of the thematic hierarchy.<sup>22</sup>

Certain role types can be prespecified with the morphosyntactic case features [-LR] and/or [-HR], either idiosyncratically or by lexical rule. For example, many languages assign [-LR, -HR] to recipient and experiencer-type roles, with the consequence that they receive an “inherent” dative case, invariant under passivization, which is not unifiable with [+HR] and therefore blocks subject status for them (unless that is specially licensed in the way discussed below). Thus in Old English, Recipients were assigned dative case inherently, e.g. *bringan* “bring”:

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<sup>22</sup>For purposes of licensing, the Accusative and Infinitive and similar constructions will be treated as complex predicates, derived by combining the Semantic Form of the governing verb with the Semantic Form of the complement. Within this entire complex predicate, the accusative has the status of an object, and gets assigned [-HR]. The accusative is, however, the subject of the contained complement, in virtue of being the highest Th-role in it which is licensed by structural case. The extent to which the Semantic Form of the embedded complement of a complex predicate is syntactically visible is subject to systematic variation within and across languages.

- (33) a. *bringan*:  $\left[ \begin{array}{c} \lambda_x \\ [+HR] \end{array} \right] \left[ \begin{array}{c} \lambda_y \\ [-HR] \\ [-LR] \end{array} \right] \left[ \begin{array}{c} \lambda_z \\ [+LR] \end{array} \right]$
- b. *broht*:  $\left[ \begin{array}{c} \lambda_x \end{array} \right] \left[ \begin{array}{c} \lambda_y \\ [-HR] \\ [-LR] \end{array} \right] \left[ \begin{array}{c} \lambda_z \\ [+HR] \\ [+LR] \end{array} \right]$

Of course not all languages have the same case system. Cross-linguistic variation results from two factors: (1) languages have different inventories of morphological cases, and (2) languages allow different case feature mismatches. The abstract case features of an argument may fail to unify with the morphosyntactic case features assigned to it either by morphology (“quirky case”), or by position (“scrambling”). I will refer to such morphosyntactic case features as being *recessive*. Since every argument must be properly licensed, it follows that languages with no inflection do not scramble, and that subjects with quirky case must be licensed by position (or by agreement).

Consider first how prespecification of case features can conflict with the abstract case features assigned by [25] (in which case the latter must of course be licensed in some other way, viz. by agreement or by position). The Icelandic dative experiencer verb *líka* “like” would have the following Semantic Form:

- (34) *líka*:  $\lambda_y \lambda_x [x \text{ LIKE } y]$   
 $\left[ \begin{array}{c} \lambda_x \\ [-LR] \\ [-HR] \end{array} \right]$

By [25], the logical subject  $\lambda_x$  (the Experiencer) is assigned the abstract Case feature [+HR]. Being lexically marked with the dative features [-LR,-HR], it is assigned to an argument bearing dative case. But the case feature [-HR] cannot unify with (and thereby license) the abstract Case feature [+HR] assigned to the logical subject. Because morphological case is recessive in Icelandic, the mismatch between the dative’s feature [-HR] and the Th-role’s feature [+HR] is allowed. The latter must still be licensed, however. This can be done by positional nominative case in subject (Spec-IP) position. Therefore, the sentence is grammatical, as long as the experiencer is in subject position (as in (35a)):

- (35) a. *Mér líka þessir bílar*  
 Me-DAT like-PL these cars  
 ‘I like these cars’
- b. \**þessir bílar líka mér*

German morphological case is not recessive, and so, in the corresponding verb *gefallen* (whose Semantic Form is identical to that of *líka*), the abstract case feature [+HR] fatally fails to unify with the prespecified case feature [-HR]. The same would be true if the Experiencer were assigned [+LR]. So the Experiencer can get no structural case, and the abstract case features [+HR]

and [+LR] must instead be assigned to the only other Th-role, the thing-liked, or “Theme”. That makes the Theme the subject and the verb intransitive. Since positional case is recessive in German, both orders are grammatical.

- (36) a. Mir gefallen diese Autos.  
 Me-DAT like-PL these cars  
 ‘I like these cars’  
 b. Diese Autos gefallen mir.

Thus German has “free word order” and only nominative subjects, whereas Icelandic has fixed word order, and allows dative subjects.

What would happen if a language allowed *both* these types of mismatches, that is, both morphological case and positional case were recessive? Both orders should occur but their grammatical relations would be different: if the dative Experiencer is in Spec position, it is positionally licensed as a subject, but if it is an internal argument, it cannot be licensed as a subject (since neither its morphological case nor its positional case features can unify with [+HR]). Exactly this configuration of data is attested in Old English. Allen (1986, 1995) observes that the subject properties of oblique experiencers mentioned above are found *only when the experiencer is the first argument of the clause*. The arguments can be reversed, but then the experiencer loses its subject properties and functions as a dative object.

The fourth logical possibility is that neither morphological nor positional case are recessive, so that no mismatch at all is possible. In such a language, subjects and objects must bear the appropriate cases and at the same time stand in the appropriate licensing positions. Grisons seems to be an example of this type (see [2]).

The resulting typology of languages with morphological case appears in [37]:

(37)

Recessive case features	OE	German	Icelandic	Grisons
Morphological	+	–	+	–
Positional	+	+	–	–

The combinatorics of the licensing theory and its predictions are illustrated in the schematic licensing configurations in [38], representing situations that arise in languages with both case and positional licensing, with all possible combinations of recessivity and dominance. In the diagrams, an association line shows a successful unification and absence of an association line shows a failure of unification (feature incompatibility). The first case, (38a), is a nominative subject in external argument position. As can be seen from the diagram, this configuration can never fail to unify successfully regardless of recessivity. If positional case is recessive (as in German and Old English), then the order of objects is not fixed, and nominative subjects may be placed outside of Spec-IP, including VP-internally (see (38b)). If morphological case is recessive

(as in Icelandic and Old English), then “quirky subjects”, and consequently nominative objects, are allowed (provided of course they are properly licensed by position, see (38c)). Finally, the reason why scrambling of quirky subjects (*qua* subjects!) must lead to failure of licensing and therefore to ungrammaticality regardless of recessivity or dominance is evident from (38d). The subject can unify neither with the case features carried by its dative morphology nor with the case features carried by an internal argument position, and therefore remains unlicensed. Of course, the very same string is grammatical with the nominative argument as subject, as in German (see (38e)).

(38) a. Nominative subject in Spec-IP, accusative object in VP:

Morphological case	[     ]	[ -HR ]
Abstract case	[ +HR ]	[ +LR ]
Position	[     ]	[ -HR ]

b. Scrambling (recessive positional case):

Morphological case	[     ]	[ -HR ]
Abstract case	[ +HR ]	[ +LR ]
Position	[ -HR ]	[     ]

c. Dative subject, nominative object (recessive morphological case):

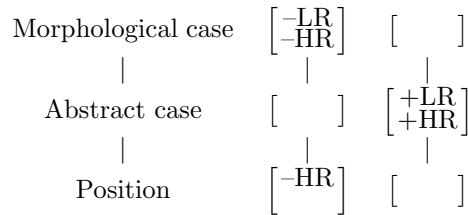
Morphological case	[ -LR ]	[     ]
Abstract case	[ +HR ]	[ +LR ]
Position	[     ]	[ -HR ]

d. Scrambled dative subject (ungrammatical):

Morphological case	[ -LR ]	[     ]
Abstract case	[ +HR ]	[ +LR ]
Position	[ -HR ]	[     ]

e. Dative nonsubject:





Of course, in languages that lack morphological licensing (such as modern English, Dutch, and Swedish), positional licensing must do the job. Since arguments must be licensed, there can be no question of recessivity of position in these languages. The fixed relative order of arguments seen in the Dutch and Swedish data in [1b,c] thus follows.

Implicit in this typology is the assumption that languages normally assign the same status to all licensing morphology (case and agreement inflections) and to all licensing positions (subject and object). I do not wish to claim that there can be no language in which agreement is recessive and case is dominant (or vice versa), or in which subject position is dominant and object position is recessive (or vice versa). However, convincing instances of this situation are hard to come by, which suggests that there is at least a tendency to avoid it; I will refer to this tendency as UNIFORM LICENSING. Let us posit it as a descriptive generalization for now; a deeper explanation would of course be required. Uniform Licensing also makes sense of the fact that, while arguments with quirky case are commonly licensed as subjects by position, they are generally not licensed as subjects by agreement. This would involve recessive case and dominant agreement, contrary to Uniform Licensing. Note finally that Uniform Licensing conforms to the expectations of a parametric model of grammatical organization. The historical changes to be examined below will offer further confirmation for its reality.

## 6 The word order universals

It should now be clear why the empirical generalizations stated in section 1 are predicted to hold universally. Lack of inflectional morphology implies fixed order of direct nominal arguments (modulo  $\bar{A}$ -movement of operators) because these are the only sources of morphosyntactic case, which is required in every language to license  $\theta$ -role assignment. Therefore, a language that has no morphological case must make use of positional case to license arguments by (30).

The second generalization, that the order of licensing A-positions is the same in all languages, follows if we assume that both the assignment of abstract Case by (25) and the assignment of positional case by (30) are universal.

The third generalization (due to Haider), is that the fixed word order of non-scrambling languages is the same as the contextually unmarked “neutral” word order of scrambling languages. The formal account requires more apparatus than I have presented here, but the general idea should be transparent: even when positional case is recessive, so that scrambling is permitted, the thematic ordering is observed in the unmarked case, that is, whenever other factors (such as functional sentence perspective) do not override it.

An apparent problem for this claim is the existence of a class of verbs with reversible arguments in Icelandic. The key to the solution is Haider’s observation that, in these very cases, there is also no single neutral or preferred order in German. Careful examination of the lexical semantics and argument structure of these verbs shows that the word order follows the general principles in these cases as well.

For most verbs with three arguments, we derive the correct basic constituent order in both languages. Privative verbs such as *deprive* are straightforward:

- (39) a. Icelandic: *svipta* “deprive”, *ræna* “rob” (Nom – Acc – Dat)  
 b. German: *nehmen* “take”, *entziehen* “withdraw”, *abgewöhnen* “wean someone from something”, *verbieten* “prohibit” (Nom – Dat – Acc), *entledigen* “relieve (someone of something)” (Nom – Acc – Gen)

Their Th-structure is

- (40) *deprive*:  $\lambda z\lambda y\lambda x$  [x CAUSE [BECOME [y NOT HAVE z ] ] ]

In Icelandic, the objects appear in the fixed order predicted by (40), (allowing for Heavy NP-Shift), and only the first object passivizes, regardless of case.

- (41) a. Sjórin*n* svipti hana<sub>i</sub> manni sínum<sub>i</sub>.  
 the-sea deprived her-ACC husband-DAT her(refl)-DAT  
 ‘The sea deprived her of her husband.’  
 b. \*Sjórin*n* svipti manninum<sub>i</sub> gömlu konuna sína<sub>i</sub>.  
 the-sea deprived the-man-DAT old-DAT the-wife-DAT his(refl)-DAT  
 ‘The sea deprived of the man his old wife.’

In German, they are preferentially in that order, and only the accusative (direct) object passivizes. Both the similarities and the differences are as predicted.

- (42) a. Sie verbietet ihrem Sohn das Rauchen.  
 She-NOM forbid-3Sg her-DAT son-DAT the-ACC smoking-ACC  
 ‘She forbade her son to smoke.’  
 b. Sie verbot das Rauchen ihrem Sohn.

Verbs of direct causation also work as predicted:<sup>23</sup>

<sup>23</sup>Thanks to Johanna Barddal for these examples.

- (43) a. Hávaðinn veldur verkamönnum höfudverk  
 The noise causes workers-DAT headache-ACC  
 ‘The noise gives the workers a headache’  
 b. \*Hávaðinn veldur höfudverk verkamönnum  
 ‘The noise gives the workers a headache’

A large class of verbs with a dative Recipient and an accusative Theme allow both orders as basic in both languages:

- (44) a. Icelandic: *gefa* “give”, *vísa* “show”, *selja* “sell”  
 b. German: *geben* “give”, *zeigen* “show”, *verkaufen* “sell”, *empfehlen* “recommend”

Neither (45a) nor (45b) seems to require any special discourse conditions:

- (45) a. Ich gab das Geld meinem Bruder.  
 b. Ich gab meinem Bruder das Geld.

In Icelandic, the corresponding verbs, also with a dative Recipient and an accusative Theme, allow both object orders freely (Zaenen, Maling, and Thráinsson 1990, 188):

- (46) a. Ég gaf konungi ambáttina sína.  
 I-NOM gave king-DAT slave-ACC self's-ACC  
 ‘I gave the king his maidservant.’  
 b. Ég gaf ambáttina konungi sínum.  
 I-NOM gave slave-the-ACC king-DAT self's-DAT  
 ‘I gave the maidservant to her king.’

In the passive, the difference is again that only the accusative passivizes in German, while either object passivizes in Icelandic, and it is in that case obligatorily in initial position:

- (47) a. Das Geld wurde meinem Bruder gegeben.  
 b. Meinem Bruder wurde das Geld gegeben.  
 (48) a. Honum voru oft gefnar bækur.  
 him-DAT were often given books-NOM  
 ‘He was often given books.’  
 b. Bókin var gefin honum.  
 book-the-NOM was given him-DAT  
 ‘The book was given him’

In certain 2-place predicates as well, dative and nominative are reversible in Icelandic, see [49], as noted by Smith 1992:

- (49) a. Hefur honum nokkurn tíma staðið þetta til boða?  
 has him-DAT any-ACC time-ACC stood this-NOM for offer  
 ‘Has he ever had this on offer?’

- b. Hefur þetta nokkurn tíma staðið honum til boða?  
 has this-NOM any-ACC time-ACC stood him-DAT for offer  
 ‘Has this ever been on offer to him?’

Correspondingly, German has both orders without special emphasis or focusing:

- (50) a. Hat das ihm zur Verfügung gestanden?  
 has that him-DAT to disposal stood  
 ‘Has that been at his disposal?’  
 b. Hat ihm das zur Verfügung gestanden?  
 has him-DAT that to disposal stood  
 ‘Has he had that at his disposal?’

This dual character of *give*-type verbs can be traced to a semantic ambiguity between a *recipient-oriented* sense (*give*<sub>1</sub> “X causes Y to get Z”) and a *transfer* sense (*give*<sub>2</sub> “X transfers Z from X to Y”):

- (51) a. *give*<sub>1</sub> λxλyλz [x CAUSE [BECOME [y HAVE z ] ] ]  
 b. *give*<sub>2</sub> λxλyλz [x CAUSE [z GO [FROM x TO y ] ] ]

The common meaning of [51a] and [51b] is that after the event (of giving, teaching, showing etc.) there is a relation R(y,z) (of having, knowing, seeing etc.) between Recipient and Theme. The additional meaning in [51b] is that prior to the event (at least) the corresponding relation R(x,z) holds between Agent (Causer) and Theme.

Assuming as before that the Th-hierarchy is a projection of the depth of semantic embedding, we arrive at the desired two Th-structures and correlate them with the meaning difference in the right way.

In English this difference is apparent in the semantic conditioning of the “dative shift” alternation. As noted by Oehrle 1976, the *to*-dative version is only permitted in the transfer sense:

- (52) a. Regular yoga exercises gave Bill  $\left\{ \begin{array}{l} \text{the ability to concentrate.} \\ \text{powerful thighs.} \\ \text{a heart attack.} \end{array} \right\}$   
 b. \*Regular yoga exercises gave  $\left\{ \begin{array}{l} \text{the ability to concentrate} \\ \text{powerful thighs} \\ \text{a heart attack} \end{array} \right\}$  to Bill.

Similarly, *teach*<sub>1</sub>, *show*<sub>1</sub>, *offer*<sub>1</sub>... imply simple causing to learn, see, have available ..., while *teach*<sub>2</sub>, *show*<sub>2</sub>, *offer*<sub>1</sub>... imply that the thing taught, shown is previously known or seen by the Causer of the event (thus involving an abstract transfer of knowledge, vision, or availability). Accordingly, [53b] is strange because the transfer meaning is inappropriate:

- (53) a. The landslide  $\left\{ \begin{array}{l} \text{showed the people the need for a new party.} \\ \text{offered the president an excuse to resign.} \end{array} \right\}$

- b. ??The landslide  $\left\{ \begin{array}{l} \text{showed the need for a new party to the people.} \\ \text{offered an excuse to resign to the president.} \end{array} \right\}$

In the case of such verbs as *skila* “return”, the order is obligatorily Agent – Recipient – Theme:

- (54) a. *Ég skilaði henni peningunum.*  
 I returned her-DAT money-the-DAT  
 ‘I returned the money to her.’  
 b. \**Ég skilaði peningunum henni.*  
 I returned money-the-DAT her-DAT  
 ‘I returned the money to her.’

As predicted, only the thematically higher object, the Recipient, may passivize:

- (55) a. *Henni var skilað peningunum.*  
 her-DAT was returned money-the-DAT  
 ‘She was given back the money.’  
 b. \**Peningunum var skilað henni.*  
 money-the-DAT was returned her-DAT  
 ‘The money was given back to her.’

The transfer component of *skila* is motivated by its essentially locative character, revealed by the fact that *skila* — unlike *gefa*-type verbs — allows a prepositional phrase instead of the Dative:

- (56) *Ég skilaði peningunum til hennar.*  
 I returned money-the-DAT to her-GEN  
 ‘I returned the money to her.’

In discussion, H. Thráinsson raised the question why *gefa*, unlike *skila*, does not allow *til* in Icelandic. I assume that *til* is semantically incompatible with the particular kind of transfer denoted by *gefa*, presumably because it is generally restricted to transfer or extent in space or time, and hence (unlike English *to*) does not sit well with verbs denoting abstract transfer of possession. This would imply that (56) implies actual bringing, and (unlike its English translation) would not be used to refer, say, to signing a legal document.

A corollary is that for any verb which has *only* the transfer meaning, the Theme (accusative) argument comes first in the basic order. This is the case for all change-of-place verbs, hence the position of Directional Locatives below Theme in the hierarchy. However, verbs of abstract transfer pattern exactly like change-of-place verbs:

- (57) a. Icelandic: (all take PP complements)  
 b. German: *aussetzen* “set out, expose”, *ausliefern* “hand over, extradite”, *unterwerfen* “subject”, *zuführen* “bring to”

On the other hand, if the verb has no transfer component whatever, the basic order is fixed, with Theme in last place. This class includes all verbs where there is no transfer involved, notably verbs denoting intensional mental states:

- (58) a. Icelandic: *óska* “wish”, *lofa* “promise”, *spá* “predict”  
 b. German: *wünschen* “wish”, *versprechen* “promise”, *zutrauen* “think someone capable of something”, *verübeln* “begrudge”, *gönnen* “not begrudge”, *verweigern* “deny”

Hence the predicted fixed order illustrated in Icelandic [59], and the passivization pattern in [60]:

- (59) a. þú hefur óskað henni þess.  
 You-NOM have-2Sg wish-PP her-DAT this-GEN  
 ‘You have wished her this.’  
 b. \*þú hefur óskað þess henni.  
 You-NOM have-2Sg wish-PP this-GEN her-DAT
- (60) a. Ég tel þess hafa verið óskað (\*henni).  
 I-NOM believe this-GEN have-INF wish-PP her-DAT  
 ‘I believe this to have been wished her.’  
 b. Ég tel henni hafa verið óskað þess.  
 I-NOM believe her-DAT have-INF wish-PP this-GEN  
 ‘I believe her to have been wished this.’

Correspondingly, since *to* denotes a transfer (change of possession or change of location), the same class of verbs in English only take double objects (in the relevant meaning).

## 7 From morphological to positional licensing

There is an obvious inherent asymmetry between position and morphology in that the property of linearity guarantees the availability of position as a potential licensor (whether recessive or dominant), whereas case and agreement may simply be lacking in the morphology. A language may lose its inflections but it cannot “lose its word order” in the same sense: it must go on putting one word after another, even when it does not grammatically exploit or constrain word order. A corollary is that position is always ready to pick up the licensing function when morphology ceases to be able to handle it. Therefore, since Th-role assignment to arguments must be licensed by case features, loss of inflections automatically brings about a shift to positional licensing, with all the consequences that this entails.

With this in mind, let us return to the momentous syntactic events at the end of the Middle English period. These were of two kinds. On the one hand,

at this point a number of syntactic innovations that had steadily gained ground through the Middle English period went to completion. A subject in Spec-IP position became obligatory in finite clauses, filled either by an argument or by an expletive pronoun. NP objects became fixed in postverbal position, losing at once their ability to precede the verb within the VP and to scramble with each other after the V, as in the double object construction. In a concurrent development, inherent lexical (“quirky”) case is gradually eliminated. On the other hand, several characteristic features of modern English syntax show up for the first time in the historical record at this time: *do*-support, split infinitives, *pro*-infinitives, new modal auxiliaries, and the recipient passive.

These convergent innovations can now be seen to have a common structural cause. They are consequences, some direct, others indirect, of a single grammatical change, itself ultimately a consequence of the erosion of case morphology in Middle English. This triggered the loss of inherent case, and caused NP arguments to become restricted to fixed licensing positions, entailing both the freezing of objects within the VP and the obligatoriness of the subject licensing position, Spec-IP, hence of the functional category Infl. The obligatoriness of Infl in turn caused *to* and the modals to become recategorized as Infl elements.

In the course of the Middle English period, phonological and morphological changes resulted in the complete loss of case marking on nominal arguments. This dismantling of case inflection proceeded at its own rather leisurely pace. By 1200, nouns had ceased to be inflected for case, and dative case had merged with accusative case. After this time, NPs could still be marked for accusative case on the definite article (less often on the indefinite article) into the 13th century, in the conservative Southern (Kentish) dialects through the 14th century (Allen 1995, Ch. 5). The OED’s last examples of accusative inflection on NP arguments are:

- (61) a. He ne may naȝt þolye **þane** guode smel . . . ne more þanne þe  
           ‘He not may not tolerate the good smell . . . no more than the  
           boterel **þanne** smel of þe vine (*Ayenbite* 187, 1340)  
           toad the smell of the vine’
- b. Ate laste **þan** gurdel he fond (*Sir Ferumb.* 2419, ca. 1380)  
           ‘At last the girdle he found’
- c. To Egremoure **þon** riche cite (*Sowdone of Babylone* 108, ca. 1400)  
           ‘To E. the rich city’

Chronologically, the impoverishment of morphological case marking on NPs goes hand in hand with the increasing fixation of word order.

After the complete loss of noun and article inflection, the only remaining morphological case marking was on pronouns (where accusative had not been distinguished from dative since about 1200). Let us assume that if case never occurs on *any* lexical NP, then it cannot be assumed to be morphologically present

on them either (as a zero morpheme or the like).<sup>24</sup> Agreement remained reasonably robust for some time, and could in principle have supplied the licensing nominative case features for subjects. For NP objects, however, no morphological licensing was available after articles ceased to be inflected. At this point, positional licensing had to become obligatory for them.

A priori, it would have been possible that at this point a mixed licensing system could develop in which NP objects have to be positionally licensed, while subjects and pronominal objects continue to be morphologically licensed. The *Orrmulum* may give us a glimpse of just such a system (Allen 1995: 232-6). This text seems to treat nominal and pronominal experiencers differently; the former, already uninflected, are normally construed as nominative subjects, licensed positionally and/or by morphological agreement on the verb), the latter, retaining lexical case, behave as objects, and trigger no verb agreement.<sup>25</sup>

- (62) a. *ðat alle ... well georne birdenn clennsenn hemm*  
 That all-NOM ... well truly behooved-PL cleanse them
- b. *& wel itt birrð uss trowwenn, ðatt ...*  
 and well it behooves-SG us-ACC to believe that ...

As far as is known, the *Orrmulum*'s mixed licensing system does not occur elsewhere in Middle English.<sup>26</sup> Its marginal status is not surprising if we consider that mixed licensing systems are cross-linguistically quite rare (the Uniform Licensing tendency discussed at the end of section 5). All licensing morphology (case and agreement inflections) and all licensing positions are normally either dominant or not, across the board. The instability of systems like that of the *Orrmulum* thus lends additional support to the Uniform Licensing generalization.

In general, then, when NPs become uninflected, and objects are assigned their licensing case features by position, the licensing of pronouns changes as well. The assignment of morphosyntactic case features to objects of whatever kind becomes uniformly based on position, and the residual case inflections of pronouns cease to have a morphosyntactic licensing function.

This shift has a number of consequences. Preverbal NP objects disappear entirely (since their licensing positions are fixed). Simultaneously, in virtue of (30), the mutual order of objects in the double object construction becomes

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<sup>24</sup>This is an empirical assumption with some support in morphological theory. Evidence for it can be found in the behavior of case in languages where nouns and pronouns mark different case distinctions (for example, in ergative languages where nouns mark accusative and pronouns mark ergative case). See Kiparsky MS for discussion.

<sup>25</sup>Expressions like *methinks* could be seen as a residue of such a split system where pronouns preserved lexical case after nouns had lost it.

<sup>26</sup>There do exist some other licensing asymmetries between pronouns and full NPs in late Middle English and early Modern English, which might be connected to the fact that only the former bear morphological case (see Allen 1995:420, 426-30, who however offers a different account of these asymmetries).



fixed in the same way as in Swedish, Dutch, or any other positional licensing language.

At the same time that these changes are completed in the second half of the 14th century, the new passive construction *John was given a book* enters the language (Allen 1992, 1995:395). Three-place predicates begin to passivize the formerly dative (thematically higher) object, at first alongside the older passivization of the former accusative (“Theme”) object. Allen’s earliest example of this “recipient passive” is from 1375.

This innovation can also be understood as a consequence of the loss of the licensing function of morphological case. In Germanic, the higher object of ditransitives was protected from passivization by its inherent morphosyntactic dative case (that is, by the feature complex  $[-HR, -LR]$ ); see (33). This inherent morphosyntactic case was lexically assigned by a general rule to the middle Th-role of three-place predicates. While positionally licensed dative Experiencer subjects were introduced into Old English, the first objects of ditransitives continued to resist passivization, at which point this class of arguments had to be marked as ineligible to become the subject in the passive. (Recall that passivization is demotion of the highest Th-role, upon which the subject role should fall on the next highest eligible Th-role). After their morphosyntactic dative case ceased to be morphologically realized, its licensing function being taken over by position, they stood as simple unmotivated exceptions to the passive. This complication then began to be eliminated from the system.<sup>27</sup>

The single objects of verbs like *þancian* “thank” had originally also failed to passivize in virtue of being inherently specified as dative in the lexicon, and turned into exceptions to passivization after dative subjects became possible. However, unlike the lexical case on the middle Th-role of ditransitives, which could be assigned by a general (albeit unmotivated) rule, the lexical case on the objects of these monotransitives was truly “quirky” case: there is no way to predict the fact that *swican* “betray” takes a dative object while *forsacan* “forsake” takes an accusative object. After the morphological merger of dative and accusative case (which dates to around 1200), former single dative objects were in effect *idiosyncratic* exceptions to passivization, rather than *systematic* exceptions as the first objects of ditransitives were. These idiosyncratic exceptions were lost as soon as distinct dative case was lost, nearly two centuries before the systematic exceptions that the first objects of ditransitives constituted.

What these two classes of lexical case marking had in common is that the lexical case was assigned to an argument that would have received the same case by structural case assignment anyway (except precisely in the passive,

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<sup>27</sup>Allen 1995, Ch.9, proposes the fixing of the order of objects as the cause of the new recipient passive. The present proposal connects these two changes in a slightly different way: both follow from the loss of morphosyntactic case, the first directly, the second as an indirect consequence.

as we have just seen). The lexical case marking was thus “opaque” and had to be learned on the basis of the indirect evidence presented by the object’s failure to passivize, presumably a point of difficulty for the learner. This is not the case for a third class of arguments with lexical case, the Old English dative subjects of impersonal verbs such as *lician* “like, please” and *þyncan* “think” (see (34)). The lexical case there appears on the logical subject, where it blocks nominative morphology and subject-verb agreement. This class of lexical case marking is about as unpredictable as the previous class, but it differs in being straightforwardly accessible to the learner from the core data of active sentences (such as *me thinks...*, *the men thinks...*, and does not involve exceptionality with respect to passivization. Because of its relative transparency, it is eliminated rather more gradually than the other two classes of cases (Allen 1995, Ch, 6), and indeed survives in fixed expressions such as *if you please* to this day.

Uniform Licensing manifests itself in still another way. When positional licensing is instituted for objects, it is at the same time extended to subjects as well. The unrestricted licensing position that confers nominative case is Spec-IP.<sup>28</sup> Thus subjects had to fill the Spec-IP position, and therefore to be non-empty. That is, impersonal constructions disappear (acquiring as subject either one of their formerly oblique arguments, or an expletive, as discussed above).

An immediate corollary of the obligatoriness of the Spec-IP position is that every finite clause has an Infl, to which the finite verb must move. This, together with the VO order required by positional licensing of objects, excludes three of the four Old English phrase structures in (21). Only (21c), the modern phrase structure, satisfies both licensing constraints. Thus, the basic phrase structure of present-day English is the outcome of the fundamental shift to positional licensing in late Middle English.

The obligatoriness of the category Infl in finite clauses has more indirect consequences as well. It leads to the creation of a non-finite counterpart, by the recategorization of *to* as an Infl, as well as to the introduction (or expansion) of the category of modals.

As verb inflection recedes, the main verb begins to remain in VP and verb fronting is restricted to auxiliaries and modals. *Do*-support expands in lockstep with the loss of V-to-I until the change goes to completion in the 18th or early 19th century (Kroch 1989). This means that the rise of periphrastic *do* is not a result of the introduction of I but both are indirect results of the loss of inflectional morphology.

We have now traced the connections among the major syntactic innovations of the second half of the 14th century and shown how they follow from the loss

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<sup>28</sup>In addition, Spec-VP is a restricted licensing position available only for [-SPECIFIC] subjects.

of morphological licensing. There remains one syntactic change which has been connected to this complex, but which I suspect does not really belong there. This is the loss of V2 after fronted constituents other than those governed by an operator such as *Wh*, *Neg*, or *so*, a change which Hulk and van Kemenade connect to the rise of obligatory subjects.

For purposes of the discussion, I will assume the analysis of Old English fronting processes in Kiparsky 1996 (section 3.3). According to this analysis, the specifier of CP is a Focus position, obligatorily followed by the finite verb in C. It hosts not only *Wh*-phrases, *Neg*-phrases, and certain demonstratives, as in modern English, but also other Focused (contrastive or emphatic) elements. Topicalized constituents, on the other hand, are adjoined to the highest projection, where they can be followed by a focused element in Spec-CP, or (if the highest projection is not CP) by the subject, preceding the finite verb.<sup>29</sup> As in modern English, NPs regularly leave a resumptive pronoun in such cases, while adverbs and PPs do not (this being the only difference between “Left Dislocation” and Topicalization proper).

What this means is that Topicalization is essentially the same process today as it was in Old English. It is Focusing that has changed, by the imposition of a constraint requiring elements in Spec-CP to be licensed by an overt operator (*Wh*, *Neg*, *so*). Constituents not so licensed, such as ordinary PPs and NPs, are not eligible to move to the Focus position in Spec-CP, though they can be base-generated in the adjunction position (i.e. Topicalization and Left Dislocation, respectively). Since V2 is triggered by Focusing to Spec-CP but not by adjunction, the effect of this change is that V2 becomes restricted to overt operator contexts such as *Wh*-questions.

In the theory proposed in the present paper, this limitation of V2 to operator contexts cannot have a direct causal connection to the rise of obligatory subjects or to the loss of morphological case. The reason is that movement to  $\bar{A}$  positions, Spec-CP included, is not constrained by licensing requirements. It can take place as freely in languages with positional licensing as in languages with morphological licensing. The empirical point is clear from the continental Scandinavian languages, among others. They have lost both case and agreement, yet maintain fully general V2, with movement to Spec-CP of both Focused and Topicalized constituents. How then could the loss of case and agreement have caused the radical curtailment of the same V2 system in English?

The chronology of the change points in the same direction. According to Allen (1995:417), preposing of dative (Recipient) objects becomes rare in the 13th century, and ceases entirely by the middle of the 14th century. On the other hand, preposing of accusative objects persists into the 16th century, too long after positional licensing becomes mandatory for a simple causal connection

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<sup>29</sup>Thus Old English is not a strict V2 language of the German type, in that not all its main clauses are CPs.

to be plausible.<sup>30</sup> Thus the curtailment of the V2 system may not really belong in the transitional period under discussion. For these reasons I will assume that it is a separate historical change.

## 8 Conclusion

A group of changes in English clause structure which occur together around 1375 are consequences of a single syntactic shift, by which structural position became the only bearer of licensing features. I analyzed these changes in the framework of a theory of case and argument licensing which links the levels of morphology, syntactic structure, and Semantic Form. This licensing theory allows us to go beyond the gross typological correlation between free word order and rich inflectional morphology, to the grammatical detail of their interaction. Synchronically, it provides a natural account of non-canonical alignments between case and grammatical function, such as “quirky subjects” and nominative objects, including such previously unexplained phenomena as the fixed position of quirky subjects in otherwise freely scrambling languages, Old English among them. Historically, we have seen that it succeeds in revealing the common theme behind the major syntactic processes that transformed Middle English into modern English.

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<sup>30</sup>On theoretical grounds, there are unlikely to have been Th-role-specific preposing rules or conditions at work. The reason dative objects lose their preposability before accusative objects do is surely connected with the well-known object extraction asymmetries between Themes and Recipients (e.g. in *Which patient did the doctor show the nurse?* many speakers get only the reading where *Which patient* is the Theme, not where it is the Recipient.) What seems to be going on is that Recipients under certain poorly understood conditions cannot be Focused.

## Bibliography

- ACKEMA, P., A. NEELEMAN, AND FRED WEERMAN. 1993. "Deriving functional projections." *NELS* 23, Vol. 1.
- ALLEN, CYNTHIA. 1977. *Topics in diachronic syntax*. Ph.D. dissertation, University of Massachusetts, Amherst, Mass.
- ALLEN, CYNTHIA. 1986a. "Reconsidering the history of *like*." *Journal of Linguistics* 22.375-409.
- ALLEN, CYNTHIA. 1986b. "Dummy subjects and the verb-second 'target' in Old English." *English Studies* 67.465-469.
- ALLEN, CYNTHIA. 1992. "Variation and syntactic change: the English 'impersonal' constructions." *Second diachronic generative syntax workshop, Preprints*. Institute for Research in Cognitive Science, University of Pennsylvania.
- ALLEN, CYNTHIA. 1995. *Case marking and reanalysis*. Oxford: Clarendon Press.
- ANDERSON, JOHN. 1988. *The type of Old English impersonals*. In Anderson, John, and Norman Macleod, *Edinburgh Studies in the English Language*. Vol. 1. Edinburgh: John Donald.
- BATTYE, ADRIAN AND IAN ROBERTS. 1995. *Clause structure and language change*. Oxford: Oxford University Press.
- BENNIS, HANS. 1987. *Gaps and dummies*. Dordrecht: Foris.
- BIERWISCH, MANFRED. 1983. "Semantische und konzeptuelle Repräsentation lexikalischer Einheiten. In *Untersuchungen zur Semantik*, ed. W. Motsch and R. Ružicka, p. 61-99. Berlin: Akademie-Verlag.
- BIERWISCH, MANFRED. 1986. "On the nature of semantic form in natural language. In *Human memory and cognitive capabilities*, ed. F. Klix and H. Hangendorf, Part B, p. 765-783. Amsterdam: Elsevier (North-Holland).
- BIERWISCH, MANFRED AND ROBERT SCHREUDER. 1992. "From concepts to lexical items." *Cognition* 42.23-60.
- CHOMSKY, NOAM. 1993. "A minimalist program for linguistic theory." In K. Hale and S.J. Keyser (eds.) *The view from Building 20: Essays in honor of Sylvain Bromberger*. Cambridge, Mass: MIT Press.
- DENISON, DAVID 1993. *English historical syntax*. London: Longmans.
- DIESING, MOLLY. 1990. "Verb movement and the subject position in Yiddish." *Natural Language and Linguistic Theory* 8.41-81.
- ELMER, WILLY 1981. *Diachronic grammar*. Tübingen: Niemeyer.
- ENÇ, MÜRVE 1990. "The semantics of specificity." *LI* 22.1-25.
- FALK, CECILIA. 1993. *Non-referential subjects in the history of Swedish*. Ph.D. Dissertation, Department of Scandinavian Languages, University of Lund.

- GELDEREN, ELLY VAN. 1993. *The rise of functional categories*. Amsterdam: Benjamins.
- GREWENDORF, GÜNTER. 1989. *Ergativity in German*. Foris: Dordrecht.
- HAIDER, HUBERT. 1993. *Deutsche Syntax — generativ*. Tübingen: Narr.
- HOLMBERG, ANDERS AND CHRISTER PLATZACK. 1988. "On the role of inflection in Scandinavian syntax." *Working Papers in Scandinavian syntax* 50.1-24.
- HULK, AAFKE, AND ANS VAN KEMENADE. 1995. "Verb-second, pro-drop, functional projections, and language change." In Adrian Battye and Ian Roberts (ed.).
- JACKENDOFF, RAY. 1983. *Semantics and cognition*. Cambridge, MA: MIT Press.
- JESPERSEN, OTTO. 1938. *The growth and structure of the English language*<sup>9</sup>. Garden City: Doubleday.
- KAYNE, RICHARD. 1994. *The antisymmetry of syntax*. Cambridge, MA: MIT Press.
- VAN KEMENADE, ANS. 1987. *Syntactic case and morphological case in the history of English*. Dordrecht: Foris.
- VAN KEMENADE, ANS. 1992. "V2, embedded topicalization, and the development of impersonals in Old and Middle English." *Second diachronic generative syntax workshop, Preprints*. Institute for Research in Cognitive Science, University of Pennsylvania.
- VAN KEMENADE, ANS. 199X. "The history of English modals: a reanalysis." *Folia Linguistica Historica* 13.143-166.
- VAN KEMENADE, ANS. MS. "V2 and embedded topicalization in Old and Middle English." University of Amsterdam.
- KIPARSKY, PAUL. 1995. "Indo-European origins of Germanic syntax." In Adrian Battye and Ian Roberts (ed.).
- KIPARSKY, PAUL. 1996. "The shift to head-initial VP in Germanic." To appear in Höskuldur Thráinsson and Sam Epstein (eds.). *Proceedings of the Germanic Syntax Conference*.
- KIPARSKY, PAUL. MS. "Structural case."
- KROCH, ANTHONY, AND ANN TAYLOR. MS. "The syntax of verb movement in Middle English: dialect variation and language contact." University of Pennsylvania.
- KROCH, ANTHONY. 1989. "Reflexes of grammar in patterns of language change." *Language variation and change* 1.199-244.
- LIGHTFOOT, DAVID. 1979. *Principles of diachronic syntax*. Cambridge: University Press.
- LIGHTFOOT, DAVID. 1991. *How to set parameters*. Cambridge, Mass.: MIT Press.

- LIGHTFOOT, DAVID. 1993. "Why UG needs a learning theory: triggering verb movement." in C. Jones (ed.) *Historical linguistics: problems and perspectives*. London: Longman.
- MITCHELL, BRUCE. 1985. *Old English syntax*. Oxford: Clarendon Press.
- MUSTANOJA, TAUNO. 1960. *A Middle English syntax*. Mémoires de la Société Néophilologique de Helsinki XXIII. Helsinki: Société Néophilologique.
- NEELEMAN, AD. 1994. *Complex predicates*. Utrecht: Onderzoeksinstituut voor Taal en Spraak.
- NEELEMAN, AD. To appear. *Scrambling as a D-structure phenomenon*. N. Corver and Henk van Riemsdijk (eds.), *Scrambling*. Berlin: Mouton de Gruyter.
- NEELEMAN, AD AND FRED WEERMAN. 1993. "Case theory and the diachrony of complex predicates in Dutch." *Folia Linguistica Historica* 13:189-217.
- OEHRLER, RICHARD. 1976. *The grammatical status of the English Dative alternation*. Ph.D. dissertation, MIT.
- PINTZUK, SUSAN. 1991. *Phrase structures in competition: variation and change in Old English word order*. Ph.D. dissertation, University of Pennsylvania.
- PINTZUK, SUSAN. 1992. "Phrase structure variation in Old English." *Second diachronic generative syntax workshop, Preprints*. Institute for Research in Cognitive Science, University of Pennsylvania.
- PLATZACK, CHRISTER. 1988. "The emergence of a word order difference in Scandinavian subordinate clauses." *McGill Working Papers in Linguistics*, Special Issue on Comparative Germanic Syntax. pp. 215-238.
- PLATZACK, CHRISTER. 1995. "The loss of verb second in English and French." In Adrian Battye and Ian Roberts (ed.).
- REULAND, ERIC. 1990. "Head movement and the relation between morphology and syntax." *Yearbook of Morphology* 3:129-161.
- ROBERTS, IAN. 1993. *Verbs and diachronic syntax*. Dordrecht: Kluwer.
- ROHRBACHER, BERNHARD. 1994. *The Germanic VO languages and the full paradigm*. University of Massachusetts Dissertation, GLSA, Linguistics Department.
- SMITH, HENRY 1992. *Restrictiveness in case theory*. Ph.D. Thesis, Stanford University.
- STOCKWELL, ROBERT. 1984. "On the history of the verb-second rule in English." In Jacek Fisiak Jacek Fisiak (ed.) *Historical Syntax*. de Gruyter, Berlin.
- SWAN, TORIL. 1994. "Old English and Old Norse initial adverbials and word order." In Toril Swan, Endre Mørck, and Olaf Janse Westvik (edd.), *Language change and language structure: Older Germanic languages in comparative perspective*. Berlin-New York: Mouton de Gruyter.
- USZKOREIT, HANS. 1985. *Constraints on order*. Stanford: SRI and CSLI.

- VIKNER, STEN. 1991. *Verb movement and the licensing of NP-positions in the Germanic languages*. Ph.D. dissertation, University of Geneva.
- VISSER, F. 1963-73. *An historical syntax of the English language*. Leiden, Brill.
- WARNER, A.R. 1990. *Reworking the history of the English auxiliaries*. In Adamson, S., Law, V.A., Vincent, N., and Wright, S. *Papers from the 5th International Conference on English Historical Linguistics*. Amsterdam: Benjamins.
- WARNER, A.R. 1992. *Elliptical and impersonal constructions: evidence for auxiliaries in Old English?* In Anderson, John, and Norman Macleod, *Evidence for Old English*. Edinburgh Studies in the English Language, Vol. 2. Edinburgh: John Donald.
- WARNER, A.R. 1993. *English auxiliaries*. Cambridge: Cambridge University Press.
- WEBELHUTH, GERT. 1991. *Syntactic saturation and the modern Germanic languages*. Oxford: Oxford University Press.
- WECHSLER, STEVEN. 1990. "Verb second and illocutionary force in Swedish." *Edinburgh Working Papers in Cognitive Science* 6:229-24.
- WECHSLER, STEVEN. 1991. *Argument structure and linking*. Ph.D. dissertation, Stanford University, Stanford, California.
- WEERMAN, FRED. 1989. *The V2 conspiracy*. Dordrecht: Foris.
- WEXLER, K. AND R.M. MANZINI. 1987. "Parameters, Binding Theory, and learnability." *Linguistic Inquiry* 18.413-444.
- WEXLER, K. 1994. "Finiteness and head movement in early child grammars." In David Lightfoot and Norbert Hornstein (eds.), *Verb movement*. Cambridge: University Press.
- ZWART, C. JAN WOUTER. 1993. *Dutch syntax: a minimalist approach*. Groningen: Groningen Dissertations in Linguistics.