OLD ENGLISH IMPERSONALS AND THE THEORY OF GRAMMAR

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1.

The Old English (OE) ancestor of the verb like, lician could not appear in the transitive construction exemplified in (1).* That is, it could not appear with a nominative experiencer argument and a theme in the accusative Case. Instead lician assigned dative Case to its experiencer and nominative to its theme, as in (2). Traditionally, this is called the impersonal construction.

(1)a The king liked pears
   b He liked her
(2) pam cynge   licodon peran
    to the king   liked   pears
    "pears pleased the king"

During the ME period it became possible for this verb along with many others of the OE impersonal class to appear in the transitive construction. Gradually the impersonal construction was lost and in NE like again along with the other verbs participating in this change has no Psych-verb properties. Interestingly, it is the dative experiencer argument that became nominative, while the OE nominative theme acquired accusative Case. Thus in the transition from (2) to (1a) pam cynge/dative becomes the king/nominative, and peares/nominative changes to peares/accusative. (Of course accusative in NE appears overtly only on pronouns, cf.(1b).)

There is a general agreement in the literature (with the exception of Allen 1986, who makes no such claim) that the difference between (1a) and (2) involves a difference of meaning (Jespersen 1909-49, Visser 1963-73, Lightfoot 1979, Fisher and van der Leek 1983, etc.). In the OE construction lician means "to give pleasure", i.e. "subject gives pleasure to indirect object". So (2) is interpreted as "pears (nominative subject) give pleasure to the king (dative indirect object)". NE like however means not "to give pleasure", but "to receive pleasure": "subject receives pleasure from direct object". Hence the example in (1a) is understood as "the king (nominative subject) receives pleasure from the pears (accusative direct object).

Despite the concensus, there is a confusion here. This should be immediately clear once thematic roles and grammatical relations are properly

distinguished. The "meaning" of OE lician is identical to that of NE like: "experiencer receives pleasure from theme" or equivalently "theme gives pleasure to experiencer". There is no change of meaning or change of thematic structure involved in the development from the structure in (2) to the one in (1a). Rather the change has to do with the way this constant thematic structure is expressed syntactically.

2.

There have been a number of proposals put forward as to why this change from the impersonal to the transitive construction has taken place. The main common thread in the proposals that we shall call the traditional account (van den Gaaf 1904, Visser 1963-73, Jespersen 1909-49, Lightfoot 1979, Elmer 1981, etc.) is along the following lines. The word order variant of the impersonal structure where the dative indirect object, sometimes called the "pseudo-subject" preceeded the verb (as for example in (2)) was misanalyzed as a subject verb object sequence. This was due to the rigidification of the SVO sentence pattern to which the relatively free OE word order gave way. Thus the misanalysis was an analogical extension of the SVO word order that at the relevant time became standard.

The analogy was made possible by another related ME development: the loss of nominal and verbal inflections. Once dative and accusative NPs became formally indistinguishable from nominative ones, the impersonal structure with the preverbal dative/accusative indirect object will become superficially identical with the transitive construction in all those cases where the verbal inflection does not disambiguate it either. Thus the pattern of (2), once the nominal and verbal endings have levelled will be that of (1a). If there was an impersonal construction in NE which allowed the experiencer indirect object to appear in preverbal position, in most cases this would create structural ambiguity. The structure in (1a) would then be analyzable either as transitive or as impersonal (i.e."the pears pleased the king"). Hence until the option of the preverbal indirect object experiencer was lost, this structural ambiguity was also present. The sentences in (3) exemplify this.

(3)a Oonan, pe kinges neueu, ne likede nogt pis...
  b Roulond likete pat word fol wel

The structural ambiguity is resolved formally where abstract Cases are made explicit by the residual overt Case distinctions on pronouns. Thus the examples in (4) are unambiguously impersonal. Notice however that even in such cases there is no disambiguation if the oblique Case is postverbal. We cannot then tell if this corresponds to the direct object of the transitive or to the indirect object of the impersonal. Thus (5) remains structurally ambiguous in spite of the overt

Case markings.

(4)a pone wer pe me wel licap
   b gif me likes stalewurpe lefmon
   c whann hem likip...men
(5) she lyked him the bette

The claim of the analogical explanation then is that given the levelling of nominal and verbal endings impersonal constructions became ambiguous in most cases. Given the rigidification of SVO word order, preverbal indirect objects in impersonals became interpreted as subjects and postverbal subjects were taken to be direct objects.

3.

I have stated the standard account of the impersonal to transitive change in the usual way: in terms of grammatical relations. Williams 1981, 1984 argues that syntactic theory should dispense with the concept of grammatical relations altogether. He proposes that generalizations involving grammatical relations should instead be stated in terms of Cases and thematic roles. He argues furthermore that grammatical relations are dispensable not only as primitives but also as concepts defined in terms of hierarchical relations. We shall adopt his position as far as grammatical relations as primitives are concerned but will keep our options open as to whether universal grammar is allowed to refer to hierarchically defined grammatical relations. Thus we allow universal grammar to contain the notion of subject defined as eg. NP specifier of XP or NP immediately dominated by XP. But even here we shall partly accept Williams' position in that we assume a restrictive theory of the lexicon in which lexical entries cannot contain references to grammatical relations.

The traditional account can easily be amended to fit this more restrictive framework: it can be restated in terms of abstract Cases (cf. Chomsky 1981, 1986). Thus we could formulate an improved version as follows. The impersonal construction with a dative experiencer and a nominative theme gave way to the transitive construction with a nominative experiencer and an accusative theme as a consequence of two major changes in ME: the levelling of the nominal and verbal endings and the rigidification of word order. An analogical extension of the dominant nominative verb objective order (where "objective" is meant to cover accusative and oblique Cases), made possible by the loss of endings, forced the preverbal dative experiencer to be taken as nominative and the postverbal nominative theme to be interpreted as accusative.

But what does it mean to say that the dative/nominative became the nominative/dative? We do not assume the existence of such dubious entities as diachronic rules (mapping Cases to Cases). Thus we cannot plausibly say that

the rules in (6) mapped the lexical entry of lician in (7) to the transitive lexical entry of like(n) in (8).

(6) dative-----> nominative
    nominative-----> accusative

(7) lician

    dative to experiencer
    nominative to theme

(8) like(n)

    nominative to experiencer
    accusative to theme

We shall have to say instead that it is not the Cases themselves but the assignment of thematic roles to Cases that has changed. The OE impersonal assignment in (7) has given way to the transitive assignment in (8). Following the central idea of the analogical explanation we can think of this happening in the following way. The pre-XIIIth century grammar G_i contained a lexical entry for lician as in (7). Given the loss of endings this produced primary linguistic data for the XIII-XIVth century generations that included strings in relevant respects like NE (1), reproduced here as (9).

(9) The king liked pears

Without the overt morphological marking (9) could be analyzed as a nominative verb objective string. Given the prevalence of this word order at the time it was in fact so analyzed and hence gave rise to a different grammar G_j, which included the lexical entry for the verb as in (8).

4.

The analogical explanation has some more serious empirical problems that cannot be so trivially remedied as the ones brought up so far. Transitive variants of impersonals arise from the XIIIth century. But, as noted by various authors, with the same verbs the impersonal construction remains possible in general until the XVIth century and sometimes even longer. This is shown by the non-neutralized structures where verbal or pronominal endings disambiguate the two constructions. Thus in the XVth century we find side by side (10) and (11b. Notice that (11) is not formally disambiguated (cf. the discussion of (4b) above), but since youre mete is not a possible experiencer this structure must be transitive.

(10) every knyght toke the way that hym lyked beste
(11) I trow ye lyke nat youre mete

Since between the XIIIth and XVIth centuries we find in clear disambiguated form both the transitive (e.g.(11)), and the impersonal (e.g.(10),(4a)) variants, a structure like (9) during this period was presumably structurally ambiguous. But if impersonal constructions remained possible then the question arises: why did the analogy take (9) to be on a par with a standard transitive construction rather then relating it to the overtly impersonal (10),(4a)-type structure? Clearly we cannot consider the nominative verb objective analogy an explanation of these developments unless we have some reason why this should have overriden another rather more plausible analogy.[1]

This problem is in fact worse. Since impersonal structures remained possible for at least two centuries after the rise of the transitive variants, it follows that there were no two consecutive grammars G_1 and G_2 such that for lician/like(n) G_1 contained only the lexical entry in (7) and G_2 only the one in (8). Rather G_2 must have contained both (7) and (8) and it was a further development in some G_3 that the frame in (7) was not included. It follows also that the putative analogical principle operating between G_1 and G_2 responsible for the rise of the lexical entry in (8) was not obligatory, that is it did not force the elimination of overt impersonal structures that did not conform to the nominative verb objective pattern. But this means that the principle could require a structure to be taken as nominative verb objective only if there was no evidence to the contrary provided by that sentence. (This must have been optional in G_2 if, as seems plausible, structures like (9) were structurally ambiguous.) Thus (3) and (4) contain evidence that shows that they are not nominative verb objective, but a structure like (9) does not, hence this latter kind of construction is (optionally) so interpreted.

But if the analogical principle is stated in this way, then the emergence of the new transitive entry in (8) cannot be attributed to it. Since G_2 inherits the entry in (7) from G_1 it is not true that (9) contains no evidence to show that it is an impersonal structure. It contains the verb lician/like(n) with the lexical entry in (7) inherited through disambiguated constructions like (3) and (4). If the rise of the transitive construction was due to the analogical principle requiring nominative verb objective analysis in the absence of evidence to the contrary then the principle would have never been operative and the transitive construction could never have arisen.

One might suggest that the analogy operated only where there was no overt evidence in the structure to show that it was in fact "nominative V objective". However the concept of overtness necessary is a rather unclear one -- after all

the verb whose presence entails (since its lexical entry specifies) certain Case requirements is always 'overt'. Even if the required notion of overtness could be formulated it is difficult to see why it should matter: surely the crucial question for the language learner is whether the information is given, and not the manner in which it is given. Thus we reach a contradiction: the analogical principle is not just nonexplanatory, it cannot even give us a consistent description of the historical developments.

5.

Although OE did not have the transitive construction with lician, it allowed this verb to appear with a nominative experiencer as long as it had no accusative object --in the construction sometimes called "absolutive":

(12) Ic licige

The same is true of other verbs that were used in the impersonal construction. Thus consider OE hreowan "to rue, make sorry, grieve" and sceamian "to feel shame, be ashamed, to cause shame" and lystan "to list, cause pleasure or desire". These verbs are similar to lician in that they occured in the impersonal construction in OE and subsequently allowed the transitive variant. They differ from lician only in that their theme argument in the OE impersonal construction received genitive Case. Genitive assignment to the theme was obligatory with sceamian and lystan but an optional variant of nominative with hreowan. Thus we postulate OE lexical entries like (13):

(13)a lystan, sceamian

    dative to experiencer
    genitive to theme

  b hreowan

    dative to experiencer
    nominative or genitive to theme

For example:

(14)a i   pegnas... gelyste gargewinnes
            the warriors were eager to win
       ii   him ofhreow paes mannes
            he was sorry for the man
       iii ne pearf pe paes eaforan sceomigan
            you should not be ashamed of your offspring

b i pe wyrs ne maeg on pinum hyge hreowan
   it may not grieve you worse to think
 ii pylaes...him ponne gehreowe sio allmesse
    lest (we) repent of our alms

But Elmer 1981 notes that OE contained variation patterns of the following kind:

 (15)a me hreowep -- ic hreowe
    b me sceamep -- ic sceamige"

Although according to to Elmer "there is no variant of the form "he lystep" he has found an example where lystan takes a nominative experiencer:

(15) Manige men hine geornlice lystan geseon
    "many desired very much to see him"

And he gives two examples where sceamian takes a nominative experiencer and a postverbal sentential object:

(16) Gif we ponne scamiap paet...
    "If we are ashamed that..."
(17) pu ne pearft sceamian ponne...
    "you need not be ashamed when..."

Thus it seems that (as noted by Fisher and van der Leek 1983) the correct lexical entry for these verbs, --and we shall assume that these are representative of those OE impersonals that later developed a transitive variant allowed either a dative or a nominative to be assigned to their experiencer argument.

Further evidence for this assumption is provided by constructions where these verbs take a nominal theme complement. As impersonals in OE cannot appear in the nominative experiencer verb accusative theme construction (by definition), the experiencer of lician must be assigned dative so that the unique nominative Case can be assumed by the theme. As (12) showed lician could take a nominative experiencer. But if the experiencer was nominative when a theme NP complement was present, this latter would necessarily remain Caseless and the structure would be excluded for this reason. Suppose that this argument is correct, the impossibility of a nominative experiencer with lician when the theme NP is present is due to there remaining no Case for the theme. We predict then that with OE impersonal verbs a nominative experiencer is possible in the presence of a theme NP only if the theme can receive some other Case. Thus lystan, sceamian and hreowan for example should be able to appear in the nominative experiencer verb theme construction since these verbs can assign

genitive Case to the theme. This prediction is indeed correct, these verbs in OE regularly appear in the nominative experiencer-genitive theme construction:

(18)a pa se maessepreost paes mannes ofhreow
     "then the priest was sorry for the man"
    b gif pu pe ofsceamian wilt pines gedwolan
    "if you will repent of your mistake"
    c ponne seo sawl...lystep Godes rices
    "when the soul...desires God's kingdom"

So it appears that the correct lexical entries for the impersonals allow either nominative or dative to be assigned to the experiencer:

(19)a lician

        nominative or dative to experiencer
        nominative to theme (if present)

    b lystan, sceamian

        nominative or dative to experiencer
        genitive to theme (if present)

    c hreowan

        nominative or dative to experiencer
        genitive or nominative to theme (if present)

A nominative experiencer will thus be precluded in just those cases where the nominative Case is necessary for the theme NP.[2] Our assumptions are then that (i) all NPs need Case and (ii) that nominative (like all other Cases) can be assigned to a unique NP only. Given the lexical entries in (19), we predict the following combinations to be possible:

(20) a   lician

        (i) nominative experiencer   no theme
        (ii) dative experiencer   nominative theme

    b   lystan, sceamian

        (i) nominative experiencer   no theme
        (ii) dative experiencer   genitive theme
        (iii) nominative experiencer   genitive theme

c   hreowan

(i) nominative experiencer	no theme
(ii) dative experiencer	genitive theme
(iii) nominative experiencer	genitive theme
(iv) dative experiencer	nominative theme

Examples of (20ai,bi,ci), the nominative experiencer-no theme structure, are (12),(15a) and (15b). (20bii,cii), the dative- genitive construction, were illustrated by (14a), (20biii,ciii), the nominative-genitive construction, by (18). (20aii,civ), the dative-nominative structure was illustrated with lician in (2) and with hreowan in (14b). Hence all combinations predicted possible exist. As expected the impossible ones (where both experiencer and theme take nominative Case) do not occur.

Thus there seem to be good reasons to assume that impersonal verbs allowed the assignment of nominative Case to their experiencer argument in principle.   But if this is correct, then we have to revise our view of what the ME impersonal to transitive change consisted in. If nominative Case was assignable by impersonals to the experiencer in OE already, then the ME change did not involve the reanalysis of the dative experiencer as nominative. Thus it turns out that the emergence of the transitive construction was not due to the wholesale reinterpretation of the dative experiencer - nominative theme structure as nominative experiencer - accusative theme, but more simply to the rise of a new option: the possibility of accusative assignment to the theme.

This makes the analogical explanation even less plausible.   There is no need to appeal to analogy to explain the possibility of the nominative experiencer in ME simply because there is nothing to explain, as this was not a new development but an option that was always present. The new development was, it seems, the accusative marked theme which freed the nominative Case. It then became assignable to the experiencer also in those structures where the theme was present but could not receive an alternative Case before.

II.1

We argued so far that it was not in consequence of an analogical process that the transitive variants of impersonals arose. We shall now elaborate the idea suggested in the previous section, that the crucial factor in this development was the rise of a new Case assignment option, in effect, as we shall argue with Fischer and Van der Leek (1983) and Allen (1986) a new kind of Case assignment option, that of assigning structural accusative to the theme argument.

Fischer and Van der Leek appear to propose that the rise of the new option of structural (objective) Case assignment was due to the XVIth century loss of lexical Case marking, itself a consequence of the loss of morphological case.[3] But as discussed in section I.4. impersonal and transitive constructions coexisted between the XIIIth and the XVIth centuries. It is clear then that we cannot attribute the rise of structural (accusative) Case to the loss of lexical Case. The point that the appearance of structural accusative must be dated around the XIIIth century is also made by Allen who bases her main argument for this on the double dative construction of the period, like (21), (22).

(21) for dat him ereowe ow
(22) swetest him dunched ham

Examples like these, although not common, show that while the option of assigning dative to the experiencer still obtained, there now arose also a possibility not present in OE of assigning objective Case to the theme. We shall then assume with Allen that OE had no structural Case and date the rise of the new Case assignment option around the XIIIth century.

A serious methodological problem with Allen's proposal is that she does not give any independent characterization of the notions of structural and lexical Case, thereby making her account testable only to the extent that our intuitive understanding of these notions is precise. Fischer and Van der Leek (1986) for example understand lexical Case as idiosynchratic Case and on these grounds appear to reject the claim that OE impersonals assigned lexical Case.

We shall follow Chomsky (1986) in assuming that there are two kinds of (abstract) Cases: structural and inherent. Inherent Cases are systematically related to thematic roles selected for by particular lexical items. That is an inherent Case can be assigned by x only to an NP which bears a specific thematic role assigned by x. In NE the Cases assigned by As and Ns (and possibly by some Vs and Ps) are inherent. In contrast structural Cases are not associated with thematic roles. Thus in NE nominative and objective are structural Cases assigned by the finite inflection (in the position of NP immediately dominated by S) and V (in NP immediately dominated by VP) respectively. These are not sensitive to thematic relations. The nominative can be assigned to the subject

whatever its thematic role (e.g. "He hit Mary", "He was hit" etc.), and the objective assigned by a transitive verb with sentential complement can even be assigned under certain circumstances to a category that receives a thematic role from some other element in a different clause: cf. "I believe him to like Mary". We shall assume further that a structural Case assigner must be adjacent to the category that receives Case from it (Cf. Stowell 1981), and in a fixed direction --i.e. left or right. These requirements are positional, hence inherent Cases are not so constrained.

II.2.

If we restate the assumption that in OE all Cases were lexical in the falsifiable form that they were all inherent, we immediately encounter two problems. The first of these is the question of nominative assignment to pleonastic, nonthematic subjects in the OE equivalents of "It rains" "It seems that Mary left". If we maintain that nominative is inherent in OE then we shall have to weaken our theory of inherent Case to account for the existence of these structures. One possibility would be to say that an inherent Case is associated with a thematic role if possible, i.e. when the position receiving inherent Case is thematic. Another auxiliary hypothesis would be to allow inherent nominative assignment in structures headed by wheather-verbs on the basis of they being linked to the "quasi"-thematic role these verbs assign (cf. Chomsky 1981). This would leave "It seems that S" to be accounted for, the structure where the pleonastic is associated with a postverbal argument. We can assume that such an association with the carrier of the related thematic role makes inherent nominative assignable here.

The second problem concerns OE equivalents of the so-called exceptional Case marking constructions like "Mary believes him to like John". Superficially these appear to falsify our hypothesis that OE had no structural accusative, since here accusative seems to be assigned by the matrix verb to a thematically unrelated NP. If in OE believe could have been a three place predicate like force in e.g. "I forced him [to go]" then the problem disappears. Let us assume that the structure in OE is in relevant respects like in NE, in particular that believe-type verbs are two place predicates at all stages of the language. Let us assume furthermore that OE is not like Latin for example where accusative with infinitive structures appear quite freely, and where we have to allow accusative being assigned by an infinitival inflection. Thus OE in contrast to Latin has no "Him to like Mary was believed/clear". Again if it did there would be no problem since this accusative in Latin can be inherent, associated with the subject thematic role.

To account for the exceptional Case marking construction then, we shall

draw upon a suggestion of Chomsky (1981) who modifies an analysis of Kayne (1980). Kayne's analysis is along the following lines. Assume that in French, as opposed to English prepositions assign inherent Case. We take reanalysis of the V and the P necessary for preposition stranding Wh-movement to occur, and furthermore we take reanalysis to be possible when two elements assign Case in the same way. Furthermore a category is an inherent/ structural Case assigner iff it is an inherent/ structural governor respectively cf. Kayne 1980.⁴ Thus in English preposition stranding is possible (both V and P assign Case structurally) but in French it is not (V assigns structural Case but P assigns inherent Case):

(23)a   Who did you vote for t
    b   *Qui a tu vote pour t

Assume further that believe-type verbs do not delete the maximal projection, S', of their infinitival complements neither in English nor in French, but can take a phonetically unrealized prepositional complementizer: f. In English but not in French f can assign Case to the thematically unrelated subject hence the difference between (24a) and (24b).

(24)a   John believes f Peter to like Mary
    b   *Jean croit   f Pierre aimer Marie
    c   *Him to be here is hard to believe
    d   *What is hard to believe is him to be here

Chomsky notes that the assumption that f is a Case assigner is problematic since it would predict the grammaticality of (24c), (24d). He suggests that f is a non Case assigning element and the embedded subject position will get Case only when f reanalyses with the matrix predicate. He provides independent evidence for this reanalysis. Now it is still the Case that in English but not in French can believe reanalyze with f since f is structural governor only in the former. Since Case is assigned under government, believe will now not be able to assign Case directly to the subject of the embedded infinitival. f however governs this position hence believe can assign Case to it only when it is reanalyzed with f. This is possible only in English where prepositions, including f are structural Case assigners.

For more evidence for this analysis cf. Kayne (1980) and Chomsky (1981). Suppose that it is essentially correct. Kayne and Chomsky discuss two states of affairs: when V and P are both structural Case assigners and when V assigns structural and P inherent Case. Presumably there is an implicational universal that prevents the situation where V assigns inherent Case but P structural. What happens when both V and P assigning inherent Case? The prediction of the theory is that reanalysis will be possible, hence we will find (24a) type structures. We should like to propose that OE exemplifies precisely   this

situation.

II.3.

Suppose then that in OE all Cases were inherent, but that in ME around the XIIIth century structural Case assignment became possible, in particular structural nominative and structural objective became assignable by Inf and V respectively. As we have noted (cf. note 3) Fischer and Van der Leek must be taken to suggest that the rise of structural objective was ultimately a consequence of the loss of morphological case markings. One might propose that this is true of structural Cases in general. But as we have seen the rise of structural Case is the earlier development and therefore it seems that we should take the opposite view in assigning cause and effect role to the morphological and syntactic developments. The gradual rigidification of word order and the consequent loss of endings must now be seen as the result of the gradual loss of the corresponding inherent Cases that became redundant in the grammar as a consequence of the rise of the structural Case option. Since structural Case assignment is positionally determined it necessarily results in a rigidification of word order: nominative must be adjacent to Inf, verb-assigned objective adjacent to V.

Once structural objective Case became a possibility, impersonal verbs could choose to assign this to their theme argument. Our minimal hypothesis must be that structural Cases became freely available, any verb could opt for structural objective. This raises then two problems: first that of the verbs without such Case and second that of the appropriate assignment of this Case. Thus consider an intransitive like arrive. In a structure like "he arrived" it cannot assign structural objective because of the theta criterion. The verb assigns only one thematic role which is taken up by the subject. If structural objective was assigned to some NP*, NP* would have no thematic role. What about the second problem, that of appropriate assignment. What prevents assignment of objective Case to the pronoun resulting in "*arrived him"? We need an overt subject of course in English, but we may choose a pleonastic element to avoid a theta criterion violation: "*it arrived him". We shall see in later sections that there are independent reasons that exclude such structures. This will then resolve the problem of overgeneration in intransitives by freely assignable objective Cases.

Let us return to the impersonal verbs that became transitive. Since they will take structural objective we only have the problem of appropriate assignment here. That is the question of what prevents assignment of objective to the experiencer argument? Why do we have NE "I like this" instead of "this liked me"? One might argue on the basis of verbs like ail that this was in fact one of

the possibilities:

(25) This ails me

We shall argue below however that (25) is not properly analyzed as containing a structural objective Case. Thus we shall have to have an alternative answer to the question of appropriate assignment of structural objective with these verbs.

II.4.

Belletti and Rizzi (1986) discuss psych verbs like piacere, preoccupare in Italian, please, worry in English. These all take an experiencer and a theme argument and allow the theme to be the subject at S-structure. This contrasts with temere in Italian, fear in English which necessarily take the experiencer as the subject. Belletti and Rizzi propose that the former type of psych verbs appear in a D-structure like (26).

(26) [NP   [[V theme] experiencer]]
        S   VP   V'

In (26) no thematic role is assigned to the subject, both theme and experiencer are VP-internal. Belletti and Rizzi give a variety of evidence to show that although the theme argument of these verbs may appear in subject position at S-structure it is a sister of the verb at D-structure. While the theme has various characteristics of derived subjecs, the experiencer does not have the standard properties of direct objects, --hence a D-structure along the lines of (26). A sentence like (27a) then is derived by moving the theme from VP-internal to subject position, as indicated in (27b).

(27)a This pleases/ worries me
     b   np   pleases/worries this   me
          <---------------------------|

To avoid Case conflict (and violations of other principles see below), the theme object in (27b) must be in a Caseless position. Hence this type of psych verb is taken by Belletti and Rizzi to be ergative in the sense of having a thematic but Caseless internal argument position.

For reasons to be discussed in part III. in the case of Italian piacere (but not of English please) there is also the option of moving the experiencer to subject position as in (28b).

(28)a Questo piacere a Gianni

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    this      pleases to G
    "this pleases G"
b A Gianni piacere questo
    to G      pleases this
    "this pleases G"
c John  [  fears  this]
              VP
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The D-structure of (28c), as opposed to that of (27a), is identical in relevant respects to its S-structure. Belletti and Rizzi derive the differences between the please and the fear types of psych verbs from the following assumption: The accusative Case assigned by the former to the experiencer is inherent, thematic role related Case while the Case assigned by the latter to the theme is a structural. The difference in their D-structure configuration now follows from Belletti and Rizzi's statement of Burzio's generalization, --a general principle relating Cases and thematic roles.

(29) a verb assigns structural Case iff it has an external
      thematic role

External thematic role is the thematic role assigned outside the VP, i.e. to the subject .(Cf. Williams 1981) for the distinction between internal and external thematic roles.) Note that "outside the VP" means "assigned directly outside the VP, thus a thematic role assigned to the object which is then moved to subject position, as in the case of passives for example, is not an external thematic role. Given that fear assigns structural accusative to its theme it must have an external argument, -- hence the experiencer, its only other argument, must be realized outside the VP in subject position as in (28). Please/worry do not assign a structural Case hence by (29) their subject position must be nonthematic and therefore a possible target for syntactic movement (cf. Chomsky 1981).

Belletti and Rizzi assume further the following condition on the syntactic realization of thematic roles.

(30) Given a thematic grid (experiencer, theme), the experiencer
      is projected to a higher position the the theme

(30) is taken to be a subcase of a more general statement of thematic hierarchy. (30) ensures that a structure with fear as its main verb is realized as (28) and not as *this(theme) fears John(experiencer)", i.e. with the theme in subject and the experiencer in object position. It follows also from (30) together with (28) that a verb like please/worry could not assign structural accusative to its experiencer argument. If the accusative of this experiencer was structural then it would be necessary for there to be an external thematic role. The only other thematic role of a verb of this type however is the theme. Making theme the

external argument would violate (30): the subject position is higher than any VP-internal position.

We shall discuss Belletti and Rizzi's theory further below. Let us, for the moment adopt their theory as presented and return to the ME impersonal to transitive change.

II.5.

Many of the OE impersonals (like lician for example) appear to have been psych verbs of the piacere type. They had an experiencer and a theme argument and they assigned no thematic role to the subject position. Both the experiencer and the theme were able to appear in subject position. lician like Italian piacere assigned dative and nominative Cases. Other OE psych verbs like lystan and hreowan assigned genitive to the theme, obligatorily and optionally respectively, thus lystan was similar to Italian importare (with dative experiencer and genitive theme) and hreowan to both importare and gioire (with a dative experiencer and a nominative theme). Let us assume then that the D-structure of OE impersonal sentences with a theme subject was along the lines of (24): the subject position was nonthematic and both arguments were generated inside the VP. According to the proposal made above before the XIIIth century the only possibility was for both arguments to receive the inherent Case specified in the lexical entry of the verb. Once the possibility of structural Case assignment arose, the theme could receive this Case which made nominative Case assignable to the experiencer.

Using Belletti and Rizzi's theory we can now answer the problem raised earlier: why can the structural objective be assigned to the theme but not to the experiencer? There are now two reasons why this cannot happen. First given the D-structure in (24), such assignment would not obey the adjacency requirement on the assignment of structural Case: the theme intervenes between the verb and the experiencer. Secondly, if the experiencer received structural objective then the external argument, required by (29) could only be the theme. This however would violate the principle of thematic hierarchy in (30) since the subject position of the theme would now be higher then the VP-internal position of the experiencer. Thus "This likes me" cannot mean "I like this" and the the accusative of "this ails me" must be an inherent Case on a par with the dative of Italian piacere or OE lician.

(29) also entails the ugrammaticality "it arrived him", the problem raised in II.3. This is a straightforward violation of Burzio's generalization: arrive here is taken to assign a structural accusative but no external thematic role.

Let us now ask whether the lexical entry of a psych verb that was

impersonal in OE has to contain information from the XIIIth century onwards on whether it assigns structural objective --the difference between liken vs. eilen. Belletti and Rizzi assume that a lexical entry does not indicate whether a given item assigns structural Case. According to them it is only necessary to specify in the lexicon whether a given verb has or does not have an external thematic role. The information concerning assignment of structural objective is then derivable from this specification with the help of the principle in (29). Adopting this position would mean that we have to say that OE impersonals never assigned an external thematic role, and the underlying new development in the XIIIth century was the adoption of this possibility. Principle (29) will then predict that those one time impersonals that externalized one of their arguments (always the experiencer by (30)) will assign structural Case to their objects when they have one. This position however is implausible in view of the fact that structural objective together with the concomitant loss of inherent and morphological Case and word order rigidification developed across the board and it did not concern only the impersonals. We cannot therefore attribute the rise of structural Case to some property of these verbs. So it seems that we have to conclude that the ability to assign structural objective must be specified in individual lexical entries (or more probably by appropriate lexical redundancy rules). Notice that there still remains a difference between arrive and ail, the former cannot take structural accusative for principled reasons as we have seen, while for the latter verb this is an accidental property as far as the syntactic principles of thematic, Case and chain theory are concerned.

II.6.

The account of the rise of the transitive variants of the OE impersonals given above was based on Belletti and Rizzi's theory
and makes crucial use of Burzio's generalization. We shall come to some problems with Belletti and Rizzi's formulation of this principle in (29). There is also a conceptual consideration to be taken into account. Chomsky (1986) suggests that Burzio's generalization is a consequence of general chain theoretical principles, more concretely of the condition that the root and only the root of a chain is in a position of thematic role assignment, and the head and only the head of the chain is in a Case marked position. A simplified characterization of this concept would be the following. A chain $C(x_1,...x_n)$ is a set of categories such that x_1 is an NP and other x_i's in C are its traces. x_1 is the head of the chain, x_n its root. As we shall see the generalization derivable from chain theoretical principles is not equivalent to the statement in (29). We shall argue that the empirical and theoretical problems dovetail: we can derive the necessary part of Burzio's generalization without the empirical problems of Belletti and Rizzi's formulation.

Let us then consider (29) in some more detail, first from right to left:

(31) if a verb has an external thematic role then it assigns
    structural Case

One immediate problem with (31) is that taken literally it excludes intransitive (nonergative) verbs with an external thematic role, sentences like "John telephoned" etc. Clearly (31) must be taken to refer only to verbs with complements, i.e. to verbs that assign not only an external thematic role but also one or more internal ones. Given such an amendment the OE absolutive construction (e.g. "Ic licige", "Ic hreowe") will correctly be allowed. Secondly in languages with inherent Cases we often have constructions in which a verb has an uncontroversially external thematic role e.g. an agent but whose complements all have inherent and not structural Case. So it seems that the requirement in (31) that the Case assigned must be structural is too strong. As this stipulation appears to have no positive consequences following from the right to left part of (29), i.e. (31), we shall simply drop it from the statement of this subprinciple, which we restate as in (32):

(32) if a verb with a complement has an external thematic role
    then all of its complements must be Case marked.

But (32) is precisely the condition that follows from the chain theoretical principles mentioned above. Consider a verb V^* with an external thematic role and a Caseless complement. The complement cannot be the head of a chain since it has no Case. Suppose that it is a nonhead. Independent principles require that the next higher member of the chain must be subject of V^*.[5] But this again is impossible since the subject is in a position of thematic role assignment --V^* has an external thematic role--, but only the root of a chain may be in a thematic position. Thus if a verb has an external thematic role it cannot have a Caseless complement, hence (32).

    Let us next consider (29) from left to right.

(33) if a verb assigns structural Case then it has an external
    thematic role

(33) follows almost in its entirety. Consider a verb $V+$, that assigns Case to all of its complements but which has no external thematic role. Since the subject is not in a thematic position, it cannot be the root of the chain. By the independent principles hinted at above (cf. note 4) the next lower member of the chain must be governed by $V+$. (In general this means that it must be a complement of $V+$). But a category governed by a Case assigner will be Case marked and thus must head its own chain. Such a $V+$ therefore could not exist: --if a verb has no external thematic role it must have at least one Caseless complement; --let us call this C.

Suppose now that the association of inherent Case with a thematic role is so strong that it can be formulated as a biconditional: an inherent Case is assigned iff the corresponding thematic role is assigned. If this is correct then the Case that has not been assigned to the Caseless category, C, can only be structural since if an inherent Case is not assigned neither is the corresponding thematic role. In consequence there is simply no position created at all (we think of syntactic complement positions as being projected by the thematic roles of the lexicon) and therefore no chain can be formed. So we conclude that if a verb has no external thematic role it must not assign structural Case, i.e. (33).

The association of inherent Case and thematic role however cannot be as strong as suggested in the previous paragraph. First, languages that only have inherent Case often have PRO subjects of infinitivals. Assuming that these receive no Case, even in languages without structural Case we have to allow thematic role assignment to a Caseless subject position. Similarly, if we assume Belletti and Rizzi's analysis of psych verbs, in the D-structure (26) they propose there will be a direct object position assigned a thematic role but no Case. Unless we assume that in languages without structural Case psych verbs have a different D-structure, we again have to allow a Caseless but thematic position in these languages. This point is of course more general: the problem arises with all ergatives (i.e. verbs that assign a thematic role but no Case to (one of) their internal argument(s)). Thus while we can maintain that an inherent Case is always assigned together with its associated thematic role, the converse is not true even in languages that only have inherent Case.

Given these observations, we have a problem with our chain theoretical derivation of (33) above. Consider (26). (33) would rule out the assignment of structural Case to the experiencer here, but our chain theory would still allow this: there is another complement position that is Caseless (that of the theme), and therefore a well-formed chain can be constructed that includes the subject (Case marked and nonthematic) and the D- structure position of the theme (Caseless and thematic). Hence we have to fall back on the requirement that structural Case marking is under strict adjacency (structure-adjacency), --the intervening theme cannot be ignored even if empty. This makes the offending assignment impossible in (26).

The problem that remains, is the case of a chain constructed from a position governed by V but which is nonadjacent to V, i.e. could there be a verb that assigns structural Case to the adjacent category but has a Caseless nonadjacent governed thematic complement position? Presumably the fact that such verbs do not exist is not an accident. We might conjecture that thematic roles not associated with inherent Cases are possible only in subject (external argument) and direct object (adjacent internal argument) position. This would mean in effect that we distinguish "structural" and "inherent" thematic roles, where the former (like structural Case) is projected to designated structural

positions (universally). We can now maintain the biconditional relating inherent Case and thematic roles in the following form: inherent Case is always assigned in conjunction with some thematic role and an inherent thematic role is always projected together with some (inherent) Case.

Lastly we need to ask what happens if a verb assigns structural Case to the adjecent complement but governs another category that is not its complement but the subject of some other category. Thus consider for example "John, strikes me [t, as clever]". For such structures we do not derive (33), i.e. our chain theoretical considerations but not (33) would allow the Case of the experiencer here to be structural. As it is not clear what the consequences are, particularly in view of the fact that languages with inherent Cases only do not have the relevant construction for principled reasons (cf. the next section), we shall leave the matter open.

II.7.

Consider the question of whether languages without structural Case can have NP-movement constructions. Clearly if Belletti and Rizzi's theory is correct the presence in OE of impersonal structures where the theme is moved from complement to the subject position shows that NP-movement as such was not excluded in principle. Recall that the theme of impersonals cannot be the D-structure subject without violating Belleti and Rizzi's thematic hierarchy condition (30). The only problem with this movement rule, which we have to assume operated already in OE, has to do with the question of nominative Case assignment. If this NP-movement is to take place, the D-structure position of the theme must be Caseless, and the subject position must be nonthematic so that the movement results in a well-formed chain. But this means that the nominative Case that the theme eventually receives must be assigned in a nonthematic position. This appears to contradict our assumption that in OE nominative was inherent.

But remember that we had to assume in II.2. that inherent nominative can be assigned to a category in a nonthematic position as long as it is associated (forms a chain, where we understand "chain" in an extended sense to include expletive - argument pairs like it and S' in "It seems S'"; cf. Chomsky 1981, 1986) with a category receiving a thematic role assigned by the same lexical item. This was necessary to allow OE equivalents of "It seems that S". The same proviso will allow inherent nominative Case being assigned to the derived subject theme in impersonals. Notice that although we relax the requirement that inherent Case must be assigned to a position to which the associated thematic role is assigned we maintain the essential content of the notion of inherent Case, which is that such Case is always associated with some thematic role assigned by the same head.

Does this mean that examples of NP-movement like passive and raising will also occur? Lightfoot (1979) argues at length that raising and syntactic passive are not possible in OE and attributes this to the lack of NP-movement. This explanation is in conflict with the plausible assumption that all parameters must be specifiable in the lexicon (cf. Manzini and Wexler 1987). In any case it is not open to us since we assume NP-movement to take place in impersonal constructions. Let us first consider raising. In a structure like "John, seems t_i to like Mary" inherent nominative cannot be assigned to the matrix subject even though this forms a chain with a thematic position: the thematic role of this position is not assigned by the the same head seem+Inf that assigns the nominative Case.

Consider now syntactic passives. We can assume that these differ from constructions with psych verbs in that these heads assign their objects only a bare thematic role; --they have no Case to assign to this position. Syntactic passives however, are usually taken to absorb the Case they would assign to the governed category in their nonpassivized form. As we have seen Caseless thematic roles in subject and object position are possible in languages with inherent Case only. Absorption of Case, the defining property of syntactic passives however is a different matter. Since an inherent Case is always linked to the associated thematic role, only structural Case can be absorbed when the associated thematic role is projected. But if this thematic role is not projected then there will be no complement position created, hence no movement from this nonexistent position can take place. Hence syntactic passive will be possible only when the language has structural objective Case. Note that since we argue that raising is contingent on structural nominative and passive on structural objective we predict that if a language has only one of the two structural Cases, it can only have the corresponding one of the two constructions.

III.1.

Consider now the following problem. As noted earlier, piacere- type psych verbs, including OE lician differ from the preoccupare, please, worry type in that the former but not the latter allow a preverbal experiencer.

(34)a A Gianni piacere questo
     to G   pleases this
     "this pleases G"
   b *(A) Gianni preoccupare questo
     to G   worries   this
     "this worries G"
   c *John worries/pleases this

According to Belletti and Rizzi the reason why a structure like (34a) but not one like (34b) is possible is the following. The Case assigner in (34a) is an independent preposition, hence it is possible to move it together with its NP object to preverbal subject position: the preposition can assign Gianni Case here just as well as VP-internally. In contrast inherent Case assignment involves no preposition in (34b) and since inherent Cases must always be realized under the structural relation of government, the inherent accusative of preoccupare must be assigned to a VP-internal NP. Belletti and Rizzi suggest that in structures like (34a) the nominative Case is assigned to the theme directly in postverbal position.

If the preverbal experiencer is in subject position in (34a) this creates a problem for the chain theoretical account, a problem that is avoided by Belletti and Rizzi's statement of Burzio's generalization. Thus in (34a) movement of the experiencer to subject position would create a chain whose root is in a Case marked position, a position that receives inherent Case. Furthermore contrary to our expectations, the head of the chain is not in a Case marked position: nominative Case has been assigned to the postverbal theme directly. Given our assumptions this should result in ungrammaticality. In other words we seem to have found a verb that assigns Case to all of its complements but no thematic role to its subject.

Looking at OE impersonals, a problem with Belletti and Rizzi's assumptions is conspicuous: lician-type verbs all allow a preverbal experiencer but there is no independent preposition to assign Case to this argument. Suppose then that the crucial difference between piacere and preoccupare does not have to do with the presence of an independent preposition, but rather with the ability to assign nominative Case in postverbal position. We could then assume then that such a postverbal nominative assignment, possible with piacere, lician but not with preoccupare, worry etc. makes the subject an A'-position. Now the chain involving the experiencer subject and its trace in postverbal position does not

violate the theory. This is a standard A'-chain like the one composed of the wh-phrase and its trace in (35), with Case assigned in the position of the trace and carried along to the antecedent. The requirement that all and only the head of a chain is Case marked refers to A-chains only.

(35) Who did you see t

There is a strong reason however to doubt the correctness of the assumption that the preverbal position of A Gianni in (34a) is an A'-position: NP-movement can apply to it as in (36) to raise this NP into the matrix subject position. But NP-movement can involve only A-positions.[6]

(36) A Gianni sembra piacere   questo
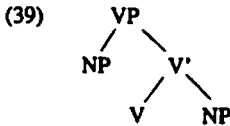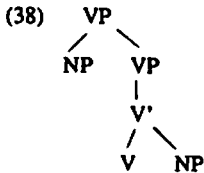   to G   seems to please this
     This seems to please G

III.2.

Let us try to approach this problem (to which we shall return in III.4.) by looking at a different question first: that of the assignment of nominative Case to external arguments in OE. If OE has the same sentential structure as NE where the inflection node creates its own X' projection as in (37), then the assignment of inherent nominative to the subject is problematic.

(37)   InfP
        ╱ ╲
      NP   Inf'
           ╱ ╲
         Inf VP
               │
               V'
              ╱ ╲
             V   NP
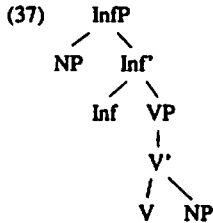
This is because the inflection does not assign any thematic role to the subject, it is the verb that provides the thematic role for this NP. So if inherent Cases are assigned in association with a thematic role then apparently no inherent nominative can be assigned in (37) by the (appropriate, tensed) inflection since this is not linked to the thematic role assigning element, the verb. Conceivably, one could argue that the inflection in (37) although topologically separated from the verb its Case can still be taken to be associated with the external thematic role of the verb for the purposes of inherent Case assignment. If possible however we should try to avoid such a weakening of the theory, where the implicit claim made by the structural configuration in (37) can be nullified.

We are then led to propose that in OE inherent Case was assignable because the inflection was still an element attached to the verb in syntax, and thus this composite unit V+Inf could assign a thematic role associated, inherent Case. Thus we assume that in general inherent nominative is only possible if the inflection does not separate from the verb in syntax and hence does not create its own X'-projection. As Case assignment can occur only under government, this means that the subject position in OE and in inherent nominative languages in general must be governed by V+Inf, i.e. it must be in the VP. We might assume that in general (i.e. apart from the special case of the nominative internal argument of (34a)) it is adjoined to the VP as in (38) or that it is in VP specifier position as in (39).

(38)

```
      VP
     /  \
   NP    VP
          |
          V'
         /  \
        V    NP
```

(39)

```
      VP
     /  \
   NP    V'
        /  \
       V    NP
```

We shall not attempt to choose between these two alternatives here. Notice however the following consequences. Under (39) we have to revise our characterization of external thematic role as the thematic role assigned outside of V' (and not VP). Furthermore to distinguish external arguments e.g. agents from the internal experiencers of Belletti and Rizzi's theory, we have to assume that these experiencers are under V', contrary to their arguments.[7] Under (38) we have to ensure that government holds between the V+Inf and the VP-adjoined position for Case assignment to be possible.

III.3.

Lightfoot (1979) argues that the rise of the modal auxiliaries in the XVIth century was due to the emergence of a new category of Modals. Thus the new properties of these elements some of which are enumerated in (40) can be accounted for on the assumption that in the XVIth century these elements have been assigned to the category of Modals (presumably provided as an option by

universal grammar), and that from this time on they occur in the Aux(iliary) (i.e. Inf in our terms) whose structure is as in (41).

(40)a Ms do not occur in infinitives (no "to may stand")
   b Ms do not occur with have-en (no "if we had mought come")
   c one M per clause (no "my letters shall may come")
   etc.
(41)   Inf--->   +Tns M
                 to

The reason that Lightfoot's account is relevant for us is that in order for a category of Modals with the properties in (40) to appear it is necessary for Inf to separate syntactically from the verb. But as we argued in the previous section this is only possible when nominative Case is structural, not necessarily assigned in conjunction with a thematic role of the verb. We can now draw together this apparently quite unrelated ME development with the transitivization of impersonals: --both of these were made possible by the ME rise of structural Case.

Another superficially quite distinct ME novelty is the rise of the "for NP to VP" infinitival. Lightfoot argues that this is a consequence of a category reanalysis: the categorial status of the "to XP" infinitive in OE is NP, but from the XVth century it is VP. This accounts for the fact that "to XP" can follow "for NP" after the XVth century but not before. It also explains why "to XP" starts to disappear from postprepositional positions at about the same date: Ps take NP but not VP complements.⁵ There is an obvious alternative which would attribute the appearance of the lexical subject in front of "to XP" in "for NP to VP" to for becoming a Case assigner to the infinitival subject. This however cannot account for the synchroneity of the appearance of this structure with the loss of the postprepositional "to XP".

A minor technical objection to Lightfoot's analysis is that to is not part of the VP but of Inf (or Aux for Lightfoot). Hence "to XP" cannot be simply a VP. More importantly there is the theoretical problem raised in a different connection in II.7. above, namely that we expect all parameters of universal grammar to be lexical, specifiable in lexical entries or lexical redundancy rules. The category of the infinitival phrase is not directly specifiable in the lexicon. Suppose however that we consider the change in categorial status of the infinitive a consequence of a change in the categorial status of the element to. Thus suppose that while in OE and pre-XVth century ME to was a preposition (or perhaps a determiner--it is in complementary distribution with prenominal modifiers like adjectives, possessives etc.), in the XVth century it was assigned the categorial specification [+Inf] in the lexicon. This way of looking at the parameter obviously does not violate the theory of the lexicality of parameters.

Furthermore the the categorial change of the "to XP" string is an immediate consequence. Thus by X' theory each zero level category X^0 projects an intermediate (X') and a phrasal (X''=X'''=XP) category of the same type (e.g. V - V' - VP). So when to is a P or a Det then "to XP", a phrase headed by to must be a projection of P or Det respectively. But once to is an Inf "to XP" can only be Inf' or InfP. Under Chomsky's (1986) hypothesis concerning the structure of the sentence indicated in (37) above "to XP" with to an Inf will thus have to be Inf'.

Again the relevance of this for our present concerns is that the independent morpheme to can be assigned to Inf only when Inf itself is independent, separable from the verb. Hence we appear to have here another ME development indirectly made possible by the new parameter setting allowing structural Case, a necessary prerequisite in our theory of the separation of V and Inf.

Once Inf has its own X' projection as in (37) the subject position changes from VP specifier (sister of V' or perhaps VP) to sister of Inf'. If +tense Inf obligatorily assigns structural nominative to its own specifier in (37) then this position is always nominative, --the NE situation⁹. We can then attribute also the loss of nonnominative subjects in impersonals to the syntactic separation of Inf and V. Thus we predict that preverbal dative experiencer constructions as (1a) or the early ME innovation based on the structural objective Case, the dative experiencer objective theme structure in (21), (22) will disappear at about the same time when, and for the same reason why modals and "for NP to VP" infinitivals arose.

III.4.

Let us now return to the Italian postverbal nominative theme construction exemplified in (34a). If in these constructions Inf is cliticised onto the verb in syntax then the structure must be (38) or (39). But if so then the dative experiencer can be base generated in preverbal position since it will be able to receive an external thematic role (being outside of VP or V') and also its inherent dative Case (being governed by V).

Thus we need not assume that in (34a) NP-movement has taken place and therfore we need not make the apparently incorrect assumption that the preverbal dative is in an A'-position. It is now not only in an A-position but in one where a thematic role is in fact assigned.

It is tempting at this point to propose that the option of keeping V+Inf as a syntactic unit is not a special property of the piacere class of verbs in Italian but a general property of the language: --in Italian Inf never projects its own X' system. We are then led to say that the special property of piacere type verbs is not that V and Inf do not separate but simply the option of postverbal (i.e.

V'-internal) nominative assignment. Structural nominative being assigned in Italian to specifier of VP (or VP adjoined) positions V'-internal nominative is presumably inherent.

We can now conjecture that pro drop, the option of not realizing the subject of a tensed clause (with specific pronominal reference) phonetically is an option that is only possible in (38/39) type languages, but not in ones like NE where the subject is sister of Inf'. This would be a natural assumption if, as suggested by Chomsky, a phonetically unrealized subject has to be "identified" in some technical sense. Such identification would be possible by an Inf that is supported in syntax by a verb but not by one standing on its own.

Standardly, identification is thought to be possible by an Inf having a "rich" agreement element, that is one that "tends to be" morphologically richly specified. We argued above that the loss of overt morphological case markings on NPs was a consequence of the loss of inherent Case. Structural Case does not need to be overtly marked since trivial algorithms can tell the identity of a given abstract structural Case on the basis of the structure of the sentence. Similarly we can
attribute the necessity of overt agreement to its link with inherent nominative Case. Once nominative is structural, overt agreement markings will tend to disappear. Since structural (nominative) Case is necessary for Inf to have its own X' projection, lack of pro drop (Inf projects its X' system) will imply lack of morphologically rich agreement, but the presence of pro drop (no X' Inf projection) is compatible with both morphologically rich (inherent nominative) and morphologically impoverished (structural nominative) agreement.[10]

We have in effect proposed so far a theory of configurationality. The word "configurationality" has been used in many senses. Let us abstract away from nonconfigurational languages like Navajo which appear to be nonconfigurational in the sense that the projection principle can be satisfied by elements that are not in A-positions but are syntactically attached to the verb (cf. Saito 1985). Concentrating on languages where the projection principle must be satisfied by categories in A-positions our proposal splits the +/- configurational specification into two hierarchically ordered parameters. A language may or may not be positively specified for structural Case assignement, and if it is positively specified it may or may not have an Inf headed X' projection. Lack of pro drop and modals for example are associated with a +,+ setting, while "strict" word order may be either +,+ (NE) or +,- (Italian), pro-drop can be +,- (Italian) or -,(-) (OE) etc.[10]

Our theory accounts for the observation that subjects sometimes have so-called behavioural properties (e.g. antecedenthood for subject oriented reflexives, deletability in infinitives etc.) without the usual morphological properties (agreement and nominative Case), cf. Cole et al. (1980). An NP that

is the specifier of VP will be a subject "behaviourally", but it will necessarily show nominative Case only if nominative is assigned structurally in this position. Subject-verb agreement appears to be a concomitant of nominative assignment apart from, presumably marked, cases where a nonnominative structural subject can serve as a trigger. Hence once nominative is structural, i.e assigned to the structural subject, subjects should have all their "coding" properties.

III.5.

Allen (1986) distinguishes five stages in the development of like ((42) is her (33) p.405)

(42) (1) The introduction of a subcategorization frame assigning
          the experiencer to the role of subject, with dative
          case marking. This lexical frame coexisted with the
          older frame which assigned the experiencer to the
          object role.
      (2) The introduction of structural case marking for
          objects (early thirteenth-century)
      (3) The introduction of optionality in the specification
          of case marking for the experiencer subject (mid
          fourteenth-century)
      (4) The loss of all lexically determined case marking,
          which resulted only in nominative subjects,
          except in fixed expressions
      (5) The eventual loss of the frame assigning the
          experiencer to the object role.

(42.1) accounts for the fact that OE allowed also the preverbal position for the dative experiencer alogside its more usual postverbal one. This gives for OE lician the structures in (43a,b). Following Elmer we add (45c), the absolutive construction with nominative experiencer and no theme.

(43)a nominative theme V dative experiencer
     b dative experiencer V nominative theme
     c nominative experiencer V

(42.2) the introduction of structural case for objects adds to (43) at least the structure with two non-nominative arguments (44a). (44.2) allows also (44b) which would be indistinguishable on the surface from (43a).

(44)a dative experiencer V objective theme
     b nominative theme V objective experiencer

The next development, (42.3), is the introduction of preverbal nominative

experiencer:

(45) nominative experiencer V objective theme

The assumption that lexical case is later lost (42.4) is then responsible for the
loss of dative subjects, i.e. the loss of (43b) and (44a). Presumably this also
entails the disappearance of (43a) containing a lexical dative. Allen does not
believe that in OE there were nominative experiencers with lician so she ignores
(43c). This leaves the disappearance of (44b) to be catalogued, --hence (42.5).
The only structure surviving into NE is then (45).

    For the reasons given in part II., let us understand Allen's lexical and
structural case as inherent and structural Case respectively. Secondly as we noted
our restrictive theory of the lexicon does not allow reference to grammatical
relations in lexical entries. This concerns the statements in (42) that pertain to
the lexicon: (1), (3) and (5), which violate this restriction. On closer inspection
it turns out that object and subject here are simply descriptive terms
corresponding to postverbal and preverbal NPs respectively. Thus (42.1) tells of
the existence in OE of both preverbal and postverbal dative experiencers, (42.3)
of the optionality of dative markings on preverbal experiencers and (42.5) of the
loss of postverbal experiencers. So let us understand subject and object in (42)
accordingly as codewords for pre- and postverbal NPs.

    Assuming Allen's description of the development of like in its essentials,
our question must be if the five stages she characterizes are indeed independent
and follow each other as a series of complete accidents or whether they are
related, --and if so, how? Are some steps preconditions of later ones? Are there
any implicational relationships where some development is a necessary
consequence of an earlier one?

    Consider first (42.1). Since Allen does not give any evidence that the
preverbal experiencer is a later development than the postverbal one we shall
assume that the two coexisted in OE. If so then we can drop (42.1) altogether,
all we need is the familiar lexical entry for lician: dative to experiencer,
nominative to theme. Both arguments can be pre- or postverbal, objects or
subjects, no further lexical or other specification is necessary.

    The introduction of structural Case in the XIIIth century is a crucial point.
According to (42.2) this concerned only objects. We hypothesised that structural
Case as such, i.e. both nominative and objective was introduced at the same
time. We might obtain some evidence for or against this assumption from the
timing of the the rise of the nominative experiencer subject. Thus suppose that
Allen is correct in that nominative experiencers, i.e. (45), arose more than a
century later than the time when structural objective, (the structures in (44))
became available. If so then we have to assume that the experiencer argument

was never assigned inherent nominative and (45) arose only in the XIVth century because structural nominative arose only then. Under this view the OE absolutive construction (43c) would have to be taken to contain a different lexical entry, -- i.e. lician must have had two independent lexical frames, a state of affairs that should only be possible if the verb was ambiguous.

In any case (42.3), i.e. the rise of (45), can be seen to be a direct consequence of the rise of structural Case, --either because the assignment of structural objective to the theme freed inherent nominative to be assignable to the experiencer even when the theme was present, as we argued in part I. above, or if Allen's timing is correct because structural nominative was a precondition for (45), inherent nominative experiencer never being a possibility for the biargumental verb.

Consider now the later developments, --first the loss of non-nominative subjects described in (42.4). We argued above that this was due to the fact that Inf and V separated in syntax, and consequently subjects, once specifiers of V, now became specifiers of Inf a position where they necessarily received nominative Case. Although the rise of structural nominative, or even of the obligatoriness of structural nominative does not entail this development (cf. Italian), it is a necessary condition for it.

Consider finally (42.5), the loss of postverbal experiencers, i.e. the loss of (43a) and (44b). Given a theory along the lines of Belletti and Rizzi's, postverbal experiencers are possible with psych verbs when they are assigned inherent Case. Remember that if structural objective is assigned then there must be an external thematic role and a structure where the theme is external but the experiencer internal would violate the thematic hierarchy condition in (30). Thus we can attribute the loss of experiencer objects to structural objective assignment becoming obligatory (for those verbs that opted for structural objective earlier). Note that this will cause also the disappearance of the absolutive construction: structural objective being obligatory means that the verb is necessarily transitive.

Thus the various stages in the history of like turn out to be be strictly related, and the following minimal account appears adequate:

(46)a structural Cases are adopted: objective   ->(42.2)
            and (perhaps with some delay) nominative   ->(42.3)
     b nominative becomes obligatory
            (Inf creates its own X'-projection)   ->(42.3)
     c objective becomes obligatory   ->(42.5)

Notes

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[1]Lightfoot (1979) suggests that this was due to his Transparency Principle. He abandons this proposal in Lightfoot (1981) where he claims that the nominative verb objective interpretation of (9) in the text was made necessary by the change from SOV to SVO order and the universal Trace Erasure Principle. For criticism of his analysis cf. Fisher and van der Leek (1983), Allen (1986).

[2]We assume that in general NPs but not clauses need Case, hence the grammaticality of (15), (16) and (17) with a nominative experiencer.

[3]Cf.: "NP is assigned objective Case iff governed by V, provided that V is a Case-assigner... and V is not specified for lexical Case (the latter provision is our own)" p. 356. and "...we argued that the impersonal verb, having lost its ability to assign two lexical Cases, due to the breakdown of the morphological Case system, could no longer assign more than one Case (i.e. structural Case through Government)..." p. 366.

[4]Clearly Kayne means an inherent governor to govern only thematically related categories, a condition not put on structural government. This in fact creates a problem of definitional hierarchy in the theory if thematic role assignment is taken to be contingent on government, as is standard. One might define structural government, then thematic role assignment in terms of this and finally inherent government. More interestingly one could attempt to define government in general in terms of thematic role assignment.

[5]Essentially Principle A of the binding theory. Traces of NP-movement are anaphors, necessarily bound in their governing category. Assuming a strict relation between the binding theory and chains, i.e. that the binder of the trace must be a member of its own chain, the binder will have to be in a non thematic position. The only possible non thematic A-position within the governing category of the complement of a V, V* is the subject of V*.

[6] Thus if we allowed movement from A to A' position and then back to A position (the so called improper movement derivation) we would have no obvious way of accounting for the ungrammaticality of the so called "super raising" structure in (i):

(i)   *John seems [s' t [s it is certain [t to like Mary]]]

<----------------<|----------------------|

[7]But even if (39) is correct and experiencers of psych verbs are under V',
we can preserve the hierarchical relations in (26) if we assume that V' can
contain a branching structure:

        VP

    NP   V'

(i)

        V'   exp

    V   theme
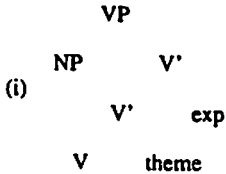
[8]Lightfoot claims that infinitives in passives and clefts disappeared
simultaneously with these developments: he does not provide any evidence
however that the relevant constructions did in fact exist at an earlier date.

[9]Perhaps examples (i) and (ii) in NE are best analyzed as retaining (as a
marked option) the V+Infl unit, i.e. not containing an InfP.

(i) Under the bed is a nice place for the cat
(ii) In the garden grew flowers

[10]We claim that Italian is like ME after the rise of structural Case but
before Inf and V syntactically separate. Our proposal therefore does not account
for the fact that the ME of this period but not Italian has structures like (21),
(22). Note that we cannot say that the lack of these dative-objective
constructions is due to structural nominative Case assignment by a +tense Inf
being obligatory in Italian: piacere(+Inf) appears to be able to assign inherent
(V'-internal) nominative and importare(+Inf) assigns no nominative at all, only
dative and genitive. In Italian but not in the ME of the relevant period,
structural objective assignment by some V+(+tense)Inf appears to entail
obligatoriness of the assignment structural nominative.

References

Allen, C. (1986) "Reconsidering the history of like",
    Journal of Linguistics 22, 375-409.
Belletti, A. and L. Rizzi (1986) "Psych Verbs and Th-Theory"
    mimeo, MIT.
Chomsky, N. (1981) Lectures on Government and Binding,
    Dordrecht, Foris.
Chomsky, N. (1986) Knowledge of Language, New York,
    Praeger.
Cole, P., W. Herbert, G. Hermon and S.N. Sridhar (1980) "The
    Acquisition of Subjecthood", Language 56, 719-743.
Elmer, W. (1981) Diachronic Grammar: The History of Old and
    Middle English Impersonal Constructions,
    Tubingen, Niemeyer.
Fisher, O. and F van der Leek (1983) "The Demise of the Old
    English Impersonal Construction", Journal of Linguistics
    19, 337-368.
Fisher, O. and F. van der Leek (1986) "A 'Case' for the Old
    English Impersonal", in Koopman, W. F. and F van der
    Leek eds. Explanation and Linguistic Change, Benjamin.
van der Gaaf, W. (1904) The Transition from the Impersonal to
    Personal Construction in Middle English, Heidelberg, Winter.
Jespersen, O. (1909-49) A Modern English Grammar on Historical
    Principles, London, Allen & Unwin.
Kayne, R. (1981) "On Certain Differences Between French and
    English", Linguistic Inquiry 12, 349-371.
Lightfoot, D. (1979) Principles of Diachronic Syntax, Cambridge,
    Cambridge University Press.
Lightfoot, D. (1981) "The History of NP-movement", in Baker, C.L.
    and J. McCarthy eds. The Logical Problem of Language
    Aquisition, Cambridge, Massachusetts, MIT Press.
Manzini, R. and K. Wexler (1987) "Parameters, Binding Theory
    and Learnability", Linguistic Inquiry 18.
Saito, M. (1985) Some Asymmetries in Japanese and their
    Theoretical Implications, Ph.D. dissertation, MIT.
Stowell, T. (1981) Origins of Phrase Structure, Ph. D.
    dissertation, MIT.
Visser, F. Th. (1963-73) An Historical Syntax of the English
    Language, Leiden, Brill.
Willams, E. (1981) "Argument Structure and Morphology", The
    Linguistic Review 1, 81-114.
Williams, E. (1984) "Grammatical Relations" Linguistic Inquiry
    15, 639-673.