Prepositions as Probes

Richard S. Kayne
New York University
May, 2001

1. Introduction.

In this paper, I will argue that some prepositions (and, by extension, some postpositions) are probes, in the sense of Chomsky's (1998; 1999; 2001) recent work. The particular case I will take up here is that of dative prepositions preceding subjects in French (and Italian) causatives. If the conclusion is correct for these, it will carry over to dative prepositions preceding subjects in causatives in other languages, as well as to parallel cases with postpositions.

The conclusion reached here will reinforce that reached in recent work of mine concerning prepositional complementizers.[1] On the other hand, it is likely that some prepositions/postpositions are not probes (or at least not in any simple way). Thus it would be plausible to take the arguments given below for French dative *à* to generalize beyond causatives to other instances of *à* and to prepositions (and postpositions) like *of, at, to, by, with, from, for* and their counterparts in other languages, without necessarily generalizing (directly) to locatives like *above, below, behind, inside, outside* (and perhaps not either to *in, on, off, out*).

Chomsky (2001) distinguishes external ('pure') Merge and internal Merge ('movement') and suggests a correlation between these two subtypes of Merge and two subtypes of semantic conditions. More specifically, he suggests that external Merge is associated with argument structure, i.e. external Merge is into theta positions, while internal Merge covers everything else.

Put another way, internal Merge covers all cases of merger into non-theta positions. This includes scope and discourse-related positions, as well as what would earlier have been called movement into A-positions (with T or *v* as probe).

I will now argue that from this general perspective the by far most natural conclusion is that French dative *à* preceding the embedded subject in causative constructions does not 'get togther with' that subject via external Merge but rather via internal Merge (movement). The position of this subject following *à* is not a theta-position; the construction is rather more like a case of ECM with raising. Therefore we would expect *à* to act as a probe much in the way that T and *v* do.[2]

2. Causatives in French

2.1. 'Dativization' of the subject of a transitive infinitive.

As discussed in Kayne (1975) and Rouveret and Vergnaud (1980) (cf. Burzio (1986) on Italian), the basic facts are as follows: The subject of the embedded infinitive in a French causative cannot precede the infinitive, contrary to the usual position of subjects:[3]

  (1) *Jean a fait Paul manger (la tarte). ('J has made/had P eat (the pie)')
The infinitival subject must follow the infinitive (abstracting away from wh-movement, cliticization, etc.):

  (2) Jean a fait manger Paul. ('J has made/had eat P')

But when the infinitive has a direct object, the infinitival subject must be preceded by the preposition *à*:

(3) *Jean a fait manger Paul la tarte.
(4) *Jean a fait manger la tarte Paul.

As seen in these two examples, lack of *à* leads to ungrammaticality. Rather, one has:

(5) Jean a fait manger la tarte à Paul.

2.2. This *à* + DP looks like a 'PP'.

'*à* Paul' in the causative (5) acts in general just like other 'P DP'. First, with respect to extraction from within adjuncts (cf. Chomsky (1982, 72) citing Adriana Belletti):

(6) ??le professeur que je me suis endormi après avoir écouté ('the professor that I fell asleep after having listened-to')
(7) *le professeur à qui je me suis endormi après avoir parlé ('the professor to whom I fell asleep after having spoken')

Extraction of a DP from within an adjunct, as in (6), though marginal, is appreciably better than extraction of a PP, as in (7). (9) shows that extraction from an adjunct of the subject-related '*à* DP' in causatives is every bit as bad as in (7):

(8) ??l'enfant que je me suis endormi après avoir fait manger ('the child that I fell asleep after having made eat')
(9) *l'enfant à qui je me suis endormi après avoir fait manger une tarte ('the child to whom I fell asleep after having made eat a pie')

Second, the subject-related '*à* DP' of causatives is similar to ordinary 'P DP' with respect to its position relative to a direct object:

(10) J'ai montré la tarte à Jean. ('I have shown the pie to J')
(11) (?)J'ai montré à Jean la tarte.
(12) J'ai fait manger la tarte à Jean. ('I have made/had eat the pie to J')
(13) (?)J'ai fait manger à Jean la tarte.

Third, the subject-related '*à* DP' of causatives acts like any PP with respect to subextraction of *en* or *combien*, which is possible out of direct objects and (many) postverbal non-prepositional subjects, but not out of PPs:[4]

(14) Le capitaine en a fait ramper trois dans la boue. ('the captain of-them has made crawl three in the mud')
(15) *Le capitaine en a fait manger de la boue à trois. ('the captain of-them has made eat (of-the-)mud to three.)
(16) Combien a-t-elle fait manger d'enfants. ('how-many has she made eat of children')
(17) *Combien a-t-elle fait manger cette tarte à d'enfants. ('how-many has she made eat this pie to of children')

In both (15) and (17) subextraction is blocked by *à* just as it would be by any other preposition.

Fourth, the '*à* DP' in question acts sharply differently from direct objects with respect to the 'obligatoriness' of clitic placement:[5]

(18) Elle *(les) a fait manger tous les deux. ('she them has made eat all the two')
(19) Elle (leur) a fait manger une tarte à tous les deux. ('she them has made eat a pie to all the two')

A direct object quantifier phrase like *tous (les deux)* is not possible without an accompanying clitic. The '*à* DP' of (19) is possible with just QP being overt, as would be the case with other prepositions, e.g.:

(20) Elle a parlé de tous les deux. ('she has spoken of all the two')

Fifth, the French counterpart of English topicalization (Cinque's (1990) CLLD) requires a clitic when the topicalized phrase is a (derived) direct object:

(21) *Paul elle a déjà fait manger. ('P she has already made eat')

(22) Paul, elle l'a déjà fait manger. ('P she him has already made eat')

But the subject-related 'à DP' of causatives does not need a clitic:

(23) A Paul elle a déjà fait manger une tarte. ('to P she has already made eat a pie')

Again, this is simply behavior that it shares with ordinary PPs:

(24) De Paul elle ne parle jamais. ('of P she neg speaks never')

Sixth, floating/stranded quantifiers in French relatives can, for many speakers, be linked to a relativized direct object but never to a relativized prepositional object:

(25) ces garçons, que j'inviterai tous ('those boys, who I will-invite all')

(26) *ces garçons, à qui je téléphonerai tous ('those boys, to whom I will-telephone all')

For such speakers, the *à* under consideration shows the same restriction:[6]

(27) *ces garçons, à qui ton ami faisait tous boire du vin ('these boys, to whom your friend made all drink of-the wine')

The general conclusion of this section is that the *à* that appears before subjects in certain French causatives is a preposition with the usual properties of prepositions.

2.3 This causative construction is not an instance of control.

There are many reasons to think that the sentences we have been concerned with, such as (28), are not instances of control, i.e. that the 'à DP' is not at all like a matrix PP controller:

(28) Jean a fait manger une tarte à Paul. ('J has made/had eat a pie to P')

First, a control construction would not care about the transitivity of the embedded infinitive:

(29) *Jean a fait manger à Paul. ('J has made eat to P')

In the absence of a direct object of the infinitive, the embedded subject in the causative generally cannot be preceded by *à*. Ordinary cases of control act quite differently:

(30) Jean a dit à Paul de manger (une tarte). ('J has said to P to eat (a pie)')

In the true control structure (30) the presence of an embedded object is irrelevant.

Second, French control constructions never allow clitic climbing, whereas causative constructions do:

(31) Jean les a fait manger à Paul. ('J them has made eat to P')

(32) *Jean les veut manger. ('J them wants to-eat')

(33) *Jean les a dit à Paul de manger. ('J them has said to P to eat')

The clitic *les* has moved up into the matrix in (31) (a causative with the *à* under study) in a way that is not allowed in the control examples (32) and especially (33).

Third, control constructions always allow a clitic to remain on the infinitive, whereas in causatives, this is marginal at best (apart from reflexives), and often impossible:

(34) *Jean a fait les manger à Paul.

(35) Jean veut les manger.

(36) Jean a dit à Paul de les manger.

Fourth, control constructions generally have the controller preceding the infinitive, whereas in causatives the order is the reverse. In causatives, the order is as in (28) and (31), and not as in (37) or (38):

(37) *Jean a fait à Paul manger une tarte.
(38) *Jean les a fait à Paul manger.
This contrasts sharply with control examples:
(39) Jean a avoué à Paul avoir mangé une tarte. ('J has confessed to P to-have eaten a pie')
(40) Jean a dit à Paul de manger une tarte. ('J has said to P to eat a pie')
Finally, were (28) and (31) to be analyzed as control examples, they would violate an otherewise exceptionless generalization about French infinitival complementizers:
(41) Infinitives with true object control[7] must have an overt (prepositional) complementizer.
(40) is a typical case of object control and contains the complementizer *de*. (39) has no overt complementizer, but in fact can only be interpreted as subject control. The fact that there is no complementizer in (28) and (31) indicates clearly that those causatives do not involve control at all.
In conclusion, then, the '*à* DP' of (28) and (31) is not a matrix PP controller.

2.4. An ECM/raising analysis.
If the '*à* DP' under consideration is not a matrix controller, then what is its origin? Subjects of French transitives are not normally preceded by *à*:
(42) Jean a mangé la tarte. ('J has eaten the pie')
(43) *A Jean a mangé la tarte.
This is also true of post-verbal subjects in finite sentences. French allows post-verbal subjects with transitives to a limited extent in the so-called 'stylistic inversion' construction:[8]
(44) ?le jour où les a mangées Jean-Jacques ('the day when them has eaten J-J')
Again, *à* is sharply impossible:
(45) *le jour où les a mangées à Jean-Jacques
The contrast between (45) and (31) suggests that this *à* is closely linked to the causative matrix verb *faire* in (31). *Faire* is not unique in French; there is one other verb that productively (probably less so than with *faire*) allows this *à*, namely *laisser*:
(46) Jean a laissé manger la tarte à Paul. ('J has let eat the pie to P')
In addition, to a minor extent, the perception verbs *entendre* and *voir* allow it:
(47) J'ai entendu dire cela à un de tes amis. ('I have heard say that to one of your friends' = 'I have heard one of your friends say that')
(48) J'ai vu faire des bêtises à Jean. ('I have seen do some stupid-things to J' = 'I have seen J do some stupid things')
As far as I know, no other class of matrix verbs allows the *à* of (28), (31), (46)-(48).
At the same time as this *à* seems clearly to be part of the matrix, the DP following it seems clearly to be part of the embedding. In part, we have already seen this in the discussion above ((28)-(41)) which showed that the DP following *à* is not a matrix controller. In part, there is the simple fact that this DP is, semantically speaking, an argument of the infinitive.
The range of theta/interpretive roles (relative to the infinitive) that can be filled by the subject DP following *à* is fairly wide, as these further examples (from Kayne (1975)) illustrate:
(49) Son dernier bouquin a fait gagner beaucoup d'argent à Jean-Jacques ('his last book has made earn a-lot of money to J-J')

(50) Tu vas faire perdre son poste à ton copain. ('you are-going to-make lose his job to your friend')

(51) Elle fera entendre raison à Jean. ('she will-make listen-to reason to J')

(52) Cela fera changer d'avis à Jean. ('that will-make change of opinion to J' = 'that will make J change his mind')

(53) Ce qui est arrivé a fait perdre de l'importance au fait que Jean aime Marie. ('that which has happened has made lose (of the) importance to-the fact that J loves M')

(54) On ne peut pas faire jouer un rôle important à tout. ('one neg can not make play a role important to everything' = 'one cannot have everything play an important role')

(55) Elle fera effleurer le filet à la balle. ('she will-make touch the net to the ball' = 'she will make the ball touch the net')

(56) Le coup de vent a fait traverser l'étang au petit voilier. ('the blast of wind has made cross the pond to-the little sailboat' = 'the blast of wind has made the little sailboat cross the pond')

(57) Cela fait préférer à Jean la syntaxe à la phonologie. ('that makes prefer to J the syntax to the phonology' = 'that makes J prefer syntax to phonology')

Whereas *Paul* in (46) is an agent, the embedded subjects following *à* in (49)-(57) are not, in various ways. If Spec,*v*P is limited to agents, then the embedded subjects of (49)-(57) will originate lower down in the VP structure. This seems to be perfectly compatible with their ending up preceded by *à*, in these causative sentences.[9]

We have arrived at the following intermediate and apparently paradoxical conclusion: The lexical DP preceded by *à* in (49)-(57) and similar causative examples is the subject of the embedded infinitival clause; yet the *à* itself, to judge by the discussion following (45) properly belong to the matrix.

This leads naturally to:

(58) Causatives with *à* preceding the embedded subject are instances of raising/ECM.

Put another way: The lexical DP preceded by *à* IS the subject of the infinitive at some point in the derivation. *à* itself IS in the matrix. The embedded subject comes to look like the object of *à* as the result of raising.[10]   The intent of (58) is to establish a clear partial link between these French causative constructions and the more familiar English ECM of:[11]

(59) John considers Bill to have made a mistake.

The two differ dramatically in that (59) contains no preposition comparable to *à*, an important but, I think, limited difference. They also differ in type of matrix verb. A still closer parallel between French and English from this ECM perspective is:

(60) Jean a fait manger une tarte à Paul. ('J has made eat a pie to P')

(61) John made Paul eat a pie.

2.5 French and English

One question that arises is why English (perhaps all of Germanic) lacks sentences comparable to the French ones with an overt preposition preceding the embedded subject:

(62) *John made/had eat the cereal to his children.

A partial answer might well be that English (61) (and similarly for other Germanic) actually does contain a dative preposition comparable to French *à*, except that in English this preposition must be unpronounced.

This would establish a very plausible link between these causatives and double object constructions, which differ in a parallel way, i.e. the following match, with respect to presence vs. absence of an overt preposition, the pair in (60)-(61):

(63) Jean a donné un livre à Paul. ('J has given a book to P')
(64) John gave Paul a book.

Of course, English also allows:

(65) John gave a book to Paul.

Thus, the ungrammaticality of (62) must reflect some more specific property of French *à* vs. English *to*, probably related to the following differences:[12]

(66)i. English distinguishes *to* and *at*, while French doesn't.
   ii. *to* can introduce purpose clauses, whereas French must use *pour* rather than *à*.
   iii. French *à* can correspond to English *from* (with verbs like *take* and *steal*)
   iv. French *à* can be benefactive, whereas English *to* is never benefactive.

This may indicate that *to* is associated with a more specific interpretation than *à* and that that extra specificity precludes it from appearing in (62) (cf. especially (66)iii and iv).

A second important question is why French does not allow an exact counterpart of (61)/(64):

(67)i. *Jean a fait manger Paul une tarte.
   ii. *Jean a fait Paul manger une tarte.
(68) *Jean a donné Paul un livre.

The (government-based) proposals I made in earlier work[13] clearly need to be updated, something that I will not attempt here. What will suffice for present purposes is simply the idea that French (60) and (63) are very close counterparts of English (61) and (64).

2.6. English double object sentences

Collins and Thráinsson (1993, 140) develop an analysis of double object constructions in which there are two Agr-O positions above VP (separated by AspP), one for each of the two objects. For my purposes, it is not so much the label Agr-O that is important.[14] What is essential, rather, is that there be two licensing positions, one for each of the objects. Important also is their taking the higher of the two Agr-Os to be associated with (and higher than) an abstract causative V. Of further importance to what follows is their claim that in Icelandic object shift of both objects the indirect object moves to the higher Agr-O and the direct object to the lower.

Setting aside the question of whether the objects move overtly or covertly in Icelandic sentences where the verb has (apparently) not raised in the familiar fashion, and continuing to use the (perhaps appropriate) label Agr-O, I would like to take over from their discussion the following:

(69) Double object constructions are akin to causatives
(70) The indirect object is licensed in an Agr-O position above the causative V
(71) That licensing is at least sometimes effected by overt movement.

Let us now reconsider the idea that French (60) and (63) are very close counterparts of English (61) and (64). For the French example (63), this suggests an analysis parallel to theirs, with *à* playing a role akin to their higher Agr-O. For the French construction with overt causative verb, as in (60), this kind of analysis is especially natural. We saw earlier in the discussion of (***)-(***) that there was every reason to think that the *à* that precedes the embedded subject is really part of the matrix. That is extremely close to Collins and Thráinsson's proposal that the Agr-O that licenses the

indirect object is above the abstract causative V. I conclude that the *à* of French causative (60) is either identical to or closely related to their higher Agr-O, and that it is above the causative verb *faire*.

   Similarly, although I won't pursue this, it is now natural to take the embedded subject *Paul* in (72) to be licensed by an indirect-object-licensing type of Agr-O above *make*:
   (72) John made Paul eat the pie.

2.7 *à* as probe.
   To grant that *à* in causatives like (60) (repeated here) is a high functional head strongly similar to Collins and Thráinsson's above-causative-V Agr-O is to grant, within the framework of Chomsky (1998; 1999; 2001), that *à* is a probe:
   (73) Jean a fait manger une tarte à Paul. ('J has made eat a pie to P')
The same is certainly then true of (63), also repeated:
   (74) Jean a donné un livre à Paul. ('J has given a book to P')
This expresses the idea put forth earlier, namely that *à* in (73) belongs to the matrix, even though the DP following it originates as the embedded subject. (In (74), similarly, *à* is above the higher causative V, whereas *Paul* originates within the lower VP.)

   In Agr-less terms, this amounts to taking *à* in these examples to act as   a probe parallel to *v* (and to T).[15] In other words, *à* (along with similar adpositions in other languages) is part of the Case-agreement system, in Chomsky's (2001) sense. The fact that in French it does not actually show overt agreement with any DP is simply parallel to the fact that *v* usually doesn't (even if it is involved in past participle agreement), nor does T in many languages (including English, where T shows overt agreement in a very limited class of cases). On the other hand, like *v* and T, P (adposition) does show overt agreement in some/many languages.[16]

2.8 Word order
   The parallelism between the *à* of (73)/(74) and Collins and Thráinsson's higher Agr-O is imperfect as far as word order is concerned. In their Icelandic examples with overt indirect object shift, the indirect object moves leftward as does the finite verb. The desired word order is achieved immediately. The indirect object remains to the left of the direct object.

   In French, the DP whose movement is induced by *à* functioning as probe (i.e. the DP *Paul* in both (73) and (74)) ends up to the right of the direct object *une tarte/un livre* and also to the right of the causative V (*faire*) in (73). The question is how to derive the French-English word order difference without losing the strong parallelisms that we have seen to hold in other respects.

   The challenge does not only concern the position of *Paul* in these examples, but also the position of *à* itself. If it is a functional head above the causative, parallel to Collins and Thráinsson's higher Agr-O, then we would expect it precede the causative, which is not the case. One possibility would be to take *à* to be unusual for French heads and to have it follow its complement, i.e. to have it follow the causative VP.

   This is of course incompatible with my 1994 universal Spec-Head-Complement proposal. On the other hand, Chomsky (2001, 7) considers an intermediate position, whereby one would have the Spec-Head part be universally valid, but not the Head-Complement part; Specs would always precede their head, but Complements could

either precede or follow. From that perspective, taking *à* to be higher than and yet to follow the causative VP would not be impossible.

   The problem is, that wouldn't suffice. Taking *à* to follow the causative VP in (73) (and (74)) might be a way of having *à* appear after the direct object, but if the Spec of *à* necessarily precedes it, then movement of *Paul* in (73) (and (74)) will not succeed in getting *Paul* to its desired position following *à*. In a Spec-Complement-Head configuration, movement of a phrase to Spec from within the Complement will place that phrase to the left of complement, given in the cases at hand the radically ill-formed:

   (75) *Jean a Paul fait manger une tarte à.
   (76) *Jean a Paul donné un livre à.

I conclude that if one grants the universality of Spec-Head order, then, even if one does not grant the universality of Head-Complement order, derivation of the correct word order in (73) (and (74)) requires a bit more movement than is sometimes assumed.

   A proposal akin to one I have made for prepositional complementizers in recent work[17] would be as follows. First, *à* (located above the causative VP) induces movement of *Paul*, yielding (abstracting away from the subject of the causative V and from the auxiliary):

   (77) ...Paul$_i$ à fait t$_i$ manger une tarte
   (78) ...Paul$_i$ à donné t$_i$ un livre

Since *à* is a preposition (rather than a postposition), it then raises to an immediately higher head (labeled W in that earlier work, but perhaps assimilable to one of Cinque's (1999) functional heads):

   (79) ...à$_j$+W Paul$_i$ t$_j$ fait t$_i$ manger une tarte
   (80) ...à$_j$+W Paul$_i$ t$_j$ donné t$_i$ un livre

Subsequently, the causative VP raises:

   (81) ...[fait t$_i$ manger une tarte]$_k$ à$_j$+W Paul$_i$ t$_j$ t$_k$
   (82) ...[donné t$_i$ un livre]$_k$ à$_j$+W Paul$_i$ t$_j$ t$_k$

   An alternative derivation of a type suggested to me in the context of prepositional complementizers by Ur Shlonsky would differ from the preceding in taking *à* to be 'twinned' with another functional head, call it Agr-IO.[18] This Agr-IO could be taken to match the higher of Collins and Thráinsson's two exactly, with French then having an 'extra' *à* lacking in English. The derivations would look like this, starting from:

   (83) ...fait Paul manger une tarte
   (84) ...donné Paul un livre

This Agr-IO acts as a probe for *Paul*:

   (85) ...Paul$_i$ Agr-IO fait t$_i$ manger une tarte
   (86) ...Paul$_i$ Agr-IO donné t$_i$ un livre

à then enters the derivation, acting as a probe for the causative VP and inducing movement:[19]

   (87) ...[fait t$_i$ manger une tarte]$_j$ à Paul$_i$ Agr-IO t$_j$
   (88) ...[donné t$_i$ un livre]$_j$ à Paul$_i$ Agr-IO t$_j$

   The derivations sketched in (83)-(88) (as well as the earlier ones in (77)-(82)) derive the desired word order, and do so while maintaining the status of *à* as a functional head above the causative and, simultaneously, the idea that *Paul* originates as the subject of the infinitive.

2.9 Complementizers

Movement of *Paul* in (85)/(86) to Spec,Agr-IO will be similar to the derivation of sentences with prepositional complementizers, adopting Shlonsky's suggested modification, and taking Agr-Infin to occur in place of Agr-IO. For example, the derivation of *Jean commence à comprendre* ('J begins to understand') will look like this (abstracting away from subjects):

(89) ...commence comprendre

Agr-Infin enters the derivation and induces movement of the infinitival (nominal[20]) IP:

(90) ...comprendre$_i$ Agr-Infin commence t$_i$

Then *à* enters the derivation, inducing movement of the VP headed by *commence*:

(91) [commence t$_i$]$_j$ à comprendre$_i$ Agr-Infin t$_j$

With a matrix verb like *essayer* ('try') instead of *commencer*, the prepositional complementizer would be *de* ('of') rather than *à*:

(92) Jean essaie de comprendre. ('J tries to understand')

I assume that there is a head-to-head relation between Agr-Infin and V and a distinction between Agr-Infin(*à*) and Agr-Infin(*de*) such that the appropriate Agr-Infin is introduced above (not below, as in more familiar approaches) a given V. Another head-to-head relation between *à/de* and Agr-Infin will ensure the desired matching.

This way of thinking about prepositional complementizers has the property that movement of IP into the Spec of the prepositional complementizer is not limited to head-final languages. It is rather the (unique) way in which UG allows these complementizers to 'get together with' their associated IP. Furthermore, the movement in question is not movement of the complement of some head into Spec of the same head.

One intuition behind this proposal is that the relation between a prepositional complementizer and its associated IP is not akin to the relation between a verb and a thematic argument, but rather to the relation between a head like T or *v* (or Agr) and a DP that moves into its Spec. If the relation between prepositional complementizer and associated IP is not akin to a theta-relation, then Chomsky's (2001, 8) division of labor between external and internal Merge would independently have led us to question to familiar and traditional, but I think incorrect, idea that complementizer and IP 'get together' as the result of one merging directly with the other.

The same intuition holds for the dative *à* that I have primarily been concerned with in this paper. The relation between it and its associated DP is not a theta-relation, but rather much more like the relation between *v* (or Agr-O) and the accusative DP that moves into its Spec. If so, then *à* and DP should not be put together by external Merge, but only by internal Merge (movement).

As we have seen, this leads to the conclusion that (leftward) VP-movement must play a role in derivations involving either complementizer *à* or dative *à*. We might think of this kind of VP-movement as being to English VP-preposing (illustrated in (93)) what scrambling is to topicalization:

(93) He said he would do it and do it he will.

It hardly seems very radical.[21]

2.10 Finite complementizers

The derivational similarities between prepositional complementizers and prepositions are strong if the preceding is on the right track. (I take all prepositions of the *of, at, to, by, with, from, for* type to be good candidates for derivations of the sort under

discussion.) Complementizers like English *that* can be analyzed in parallel fashion (i.e. as entering the derivation above VP and acting as a probe for a finite IP merged within VP), as I suggested briefly for the case of relative clauses in earlier work.[22]

Finite sentential complements might be directly parallel to infinitival sentential complements. On the other hand, there might be a requirement to the effect that arguments must invariably be nominal.[23] Now I mentioned in the discussion of (89)-(91) that French infinitival clauses are in fact nominal, in which case they can be an argument of V (later to be moved up to *à* or *de* (setting aside cases where there is no overt complementizer)).

Finite clauses in French are, however, almost certainly not nominal in and of themselves. If so, it may be that they are not permitted to be arguments of V. Although I will not pursue this question here, I think this suggests that finite complement clauses must be associated with something like *it*, in the spirit of Rosenbaum (1967) (whereas gerunds must not be, and what we call infinitives may or may not be). The complementizer *that*, or in French *que*, may still enter the derivation outside of VP, and induce movement of (finite) IP, in a way similar to what happens in the case of relative clauses.

2.11 Case

From the perspective of Chomsky (2001), we would expect the lexical DP that ends up preceded by *à* to have structural Case. This is of course compatible with the fact that French lexical DPs never have any Case morphology (nor do non-clitic pronouns). There are some morphological distinctions in third-person clitics, which may or may not be assimilable to Case morphology.[24] Let me set them aside and briefly turn to a question concerning French causatives, namely: Why is 'dativization' apparently sensitive to transitivity? That is, why do we have the following?:

(94) Jean a fait manger une tarte *(à) Paul. ('J has made eat a pie to P')
(95) Jean a fait manger (*à) Paul.

There are at least two distinct questions here. One is why *à* is required in (94). I take Rouveret and Vergnaud (1980) to be correct in seeing this in terms of Case licensing.[25] In present terms, without the *à*/Agr-IO pair, there would in French not be enough functional heads of the required kind. A second question is why *à* is not possible in (95). This question is complicated by the fact that although (95) is perfectly representative of sentences in which the infinitive has no complement whatsoever, it is not completely true that *à* requires the presence of a direct object. For example, Rouveret and Vergnaud (1980, 133) give:[26]

(96) Cela a fait changer d'avis/*de chemise à tout le monde. ('that has made change of mind/of shirt to all the world' = 'that made everyone change their mind/shirt') It may be that Agr-IO (for the most part) requires the presence of Agr-DO.

A third question is why the embedded subject *Paul* in (95) follows the infinitive. It does in (94), according to the analyis developed above, as the result of its moving up to *à*, plus the subsequent preposing of the causative VP (which no longer contains it). This does not carry over to (95). It may be that the verb-subject order in (95) is to be related to that in 'stylistic inversion' sentences such as:[27]

(97) Qu'a mangé Paul? ('what has eaten P')

3. Conclusion

Prepositions are not merged with what we think of as their objects. Rather, prepositions enter the derivation outside VP and subsequent to merger of a phonetically unrealized Case-licensing functional head (perhaps dispensed with by postpositions). That functional head acts as a probe attracting to its Spec what we think of as the object of the preposition. The preposition itself is a probe with respect to VP, which moves to Spec of the preposition, producing the desired word order. The argument has been pursued here almost entirely with respect to (certain instances of) French *à*, but if correct, must generalize well beyond.

References:
Barnes, M.P. with E. Weyhe (1994) "Faroese," in E. König and J. van der Auwera (eds.) *The Germanic Languages*, Routledge, London, 190-218.
Burzio, L. (1986) *Italian Syntax. A Government-Binding Approach*, Reidel, Dordrecht.
Chomsky, N. (1982) *Some Concepts and Consequences of the Theory of Government and Binding*, The MIT Press, Cambridge, Mass.
Chomsky, N. (1998) "Minimalist Inquiries: The Framework," *MIT Occasional Papers in Linguistics*, 15, MITWPL, Cambridge, Mass.
Chomsky, N. (1999) "Derivation by Phase," ms., M.I.T., Cambridge, Mass.
Chomsky, N. (2001) "Beyond Explanatory Adequacy," ms., M.I.T., Cambridge, Mass.
Cinque, G. (1990) *Types of A'-Dependencies*, The MIT Press, Cambridge, Mass.
Cinque, G. (1999) *Adverbs and Functional Heads. A Cross-Linguistic Perspective*, Oxford University Press, New York.
Collins, C. and H. Thráinsson (1993) "Object Shift in Double Object Constructions and the Theory of Case," in C. Phillips (ed.) *Papers on Case & Agreement II*, *MIT Working Papers in Linguistics* (volume 19), Cambridge, Mass., 131-174.
Dechaine Hoekstra Rooryck
Emonds, J.E. (1976) *A Transformational Approach to English Syntax. Root, Structure-Preserving and Local Transformations*, Academic Press, New York.
Fernández-Soriano, O. (1999) "Two Types of Impersonal Sentences in Spanish: Locative and Dative Subjects," *Syntax*, 2, 101-140.
Guasti
Johnson, K. (1994) "Bridging the gap," ms., University of Massachusetts, Amherst.
Kany, C.E. (1976) *Sintaxis Hispanoamericana*, Editorial Gredos, Madrid.
Kayne, R.S. (1975) *French Syntax. The Transformational Cycle*, MIT Press, Cambridge, Mass.
Kayne, R.S. (1981) "On Certain Differences between French and English," *Linguistic Inquiry*, 12, 349-371 (reprinted in Kayne (1984)).
Kayne, R.S. (1982) "Predicates and Arguments, Verbs and Nouns," paper presented at the GLOW Conference, *GLOW Newsletter*, 8, 24.
Kayne, R.S. (1983) "Le datif en français et en anglais", in M. Herslund, O. Mordrup and F. Sorensen (eds.), *Analyses grammaticales du français. Etudes publiées à l'occasion du 50e anniversaire de Carl Vikner, Revue Romane*, Numéro spécial 24, 86-98 (English version in Kayne (1984)).
Kayne, R.S. (1984) *Connectedness and Binary Branching*, Foris, Dordrecht.
Kayne, R.S. (1994) *The Antisymmetry of Syntax*, The MIT Press, Cambridge, Mass.
Kayne, R.S. (2000) *Parameters and Universals*, Oxford University Press, New York.

Kayne, R.S. and J.-Y. Pollock (1978) "Stylistic Inversion, Successive Cyclicity and Move NP in French," *Linguistic Inquiry*, 9, 595-621.

Kayne, R.S. and J.-Y. Pollock (to appear) "New Thoughts on Stylistic Inversion," in A. Hulk and J.-Y. Pollock (eds.).........

Klipple, E. (1997) "Prepositions and Variation," in A.-M. di Sciullo (ed.) *Projections and Interface Conditions. Essays on Modularity*, Oxford University Press, New York, 74-108.

Koopman, H. (1992) "On the Absence of Case Chains in Bambara," *Natural Language and Linguistic Theory*, 10, 555-594.

Koopman, H. and A. Szabolcsi (2000) *Verbal Complexes*, The MIT Press, Cambridge, Mass.

Landau, I. (1999) "Possessor Raising and the Structure of VP," *Lingua*, 107, 1-37.

McCloskey raising to P

Pollock, J.-Y. (1985) "On Case and the Syntax of Infinitives in French," in J. Guéron, H.-G. Obenauer and J.-Y. Pollock (eds.) *Grammatical Representation*, Foris, Dordrecht, 293-326.

Postal, P.M. (1974) *On Raising. One Rule of English Grammar and its Theoretical Implications*, The MIT Press, Cambridge, Mass.

Rosenbaum, P.S. (1967) *The Grammar of English Predicate Complement Constructions*, The MIT Press, Cambridge, Mass.

Rouveret, A. and J.R. Vergnaud (1980) "Specifying Reference to the Subject: French Causatives and Conditions on Representations," *Linguistic Inquiry*, 11, 97-202.

Sportiche, D. (1988) "A Theory of Floating Quantifiers and Its Corollaries for Constituent Structure," *Linguistic Inquiry*, 19, 425

[1] Cf. Kayne (2000, chaps. 14, 15).

[2] I will set aside the question why dative (as opposed to accusative) is generally preserved in passives (with notable exceptions, at least with single object verbs - see Kayne (1975, sect. 3.6) and Barnes (1994, 213)).

[3] If the subject of the infinitive is an accusative clitic, there are exceptions - see Kayne (1975, chap.3, note 31; chap.4, note 23) and Rouveret and Vergnaud (1980, 129). These should perhaps be related to the 'loista' phenomenon of certain varieties of Spanish, whereby clitics of accusative form appear where a dative would be expected - see Kany (1976, 135).

[4] Cf. Kayne (1975, sect. 4.9).

[5] Cf. Kayne (1975, sect. 2.17; 2000, chap. 9).

[6] For further details, v. Kayne (1975, sect. 4.9).

[7] There is no overt complementizer in:
   (i) Il me semble avoir compris. ('it(explet.) me seems to-have understood' = 'I seem to have understood')
   (ii) Il me faut partir. ('it(explet.) me is-necessary to-leave' = 'I have to leave')
Although the controller in (i) and (ii) seems to be an object (dative), these are almost certainly to be analyzed as dative subjects of the sort seen prominently in Icelandic - see Fernández-Soriano (1999) and references cited there.

[8] Cf. Kayne and Pollock (1978; to appear).

[9] There is a restriction against embedding certain kinds of psych verbs under *faire* that does not seem to be specific to sentences with *à* - v. Kayne (1975, chap. 3, note 63).
    A partially distinct point is made by:
   (i) Elle fera lever la main à Jean. ('she will-make raise the hand to J' = 'she will make/have J raise his hand')
insofar as in this example, *Jean* may originate within the DP *la main* - cf. in part Landau (1999).

[10]   Some speakers of English accept the following, with ECM and a preposition:
   (i) ?We're counting on there to be a solution.
See also McCloskey (
    The raising analysis being suggested for *à* leads to the expectation that an idiom of the form 'DP V DP', with the subject DP part of the idiom, could be embedded under *faire* and have the subject DP preceded by *à*. This needs to be looked into.
    A similar expectation arises for expletive subjects. The problem is that French has no expletive *there* that's a subject, so no test is readily available. It does have expletive *il*, but this expletive is incompatible with accusative Case and so would probably not be expected to ever surface with dative Case.

[11]   To some extent, French has counterparts of (***) - v. Pollock (1985). On English

ECM, see Postal (1974).

[12]   See also Klipple (1997) and Déchaine, Hoekstra and Rooryck 199

[13]   See Kayne (1981; 1983).

[14]   See Chomsky (1999, note 14) and references cited there.

[15]   *à* must then have an EPP feature and phi-features.

[16]   Although apparently never in SVO languages, for reasons that must be more intricate than those suggested in Kayne (1994, 49), given the analysis to follow.

[17]   See Kayne (2000, chap. 14).

[18]   See Chomsky (1999, note 14).

[19]   The derivation given in (87) does not immediately account for the possibility of having a stranded quantifier in:
   (i) Ils ont fait manger tous une tarte à leurs enfants. ('they have made eat all a pie to their children' = 'they all made their children eat a pie')
As Guasti (19 ,   ) notes, the presence of a *tous* related to *ils* yet following the infinitive appears to support the idea that the infinitive incorporates to the causative (which is not necessarily incompatible with the text proposal). Alternatively, stranded quantifiers, rather than being analyzed a la Sportiche (1988), should be related to sentences like (cf. Kayne (1975, sect. 1.9)):
   (ii) They went, the one to Paris, the other to London.
These in turn look like intricate cases of gapping. An approach to gapping a la Johnson (1994) might then carry back over to (i), without requiring incorporation.

[20]   The infinitive morpheme *-r(e)* is nominal in Romance languages - see Kayne (2000, sect. 14.1).

[21]   For extensive argumentation in this direction, see Koopman and Szabolcsi (2000).
    Note that this VP preposing of (93) is sometimes obligatory:
   (i) I said he would do it and do it he has.
   (ii) ...and he has done/*do it.
(i) recalls the Dutch/German IPP phenomenon - for recent discussion, see Koopman and Szabolcsi.

[22]   See Kayne (2000, chap. 15).

[23]   See Kayne (1982).

[24]   See Emonds (1976, 232).

[25]   See also Koopman (1992).

[26]   Cf. also Kayne (1975, chap. 3, note 9):
   (i) Cela fera voir juste à ton ami. ('that will-make see right to your friend')

and chap. 4, note 4:

(ii) *?Elle fera téléphoner à Marie à Jean. ('she will-make telephone to M to J' = 'she will have J call M')

If the infinitive has both a direct object and a PP complement, *à* is necessary, and the word order facts complex - see chap.3, note 82.

Additional examples of a dativized subject are available if one looks at causatives in which the embedded subject becomes a dative clitic, but I am setting those aside in this paper.

[27] On which, see Kayne and Pollock (1978; to appear). Some link with 'stylistic inversion' is suggested by Rouveret and Vergnaud (1980, 133), at least for some cases in which the infinitive is unaccusative.

That (95) does not involve head-raising of V is suggested for unergatives by the fact that the construction is 'delicate' in the presence of a complement PP - see Kayne (1975, chap.4, note 24):

(i) ?Cela fera penser tout le monde à Jean. ('that will-make think all the world to J' = 'that will make everyone think of J')