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A unified analysis of P-stranding in Romance and Germanic*

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0. Introduction

Cross-linguistically, languages vary with respect to stranding of a preposition or postposition (henceforth **P-stranding**). At one end of the variation spectrum are languages like English and Scandinavian where P-stranding is relatively free, and at the other end are languages like Romance where it is not possible to strand a P at all:

- (1) a. What_i did you talk about *t_i*?
b. Vad_i talade du om *t_i*? (Swedish)
what talked you about
- (2) a. *Qu_i? as-tu parlé de *t_i*? (French)
what have-you talked about
b. *Che_i hai parlato di *t_i*? (Italian)
what have-you talked about

In between these two extremes lie German and Dutch where Ps may sometimes be stranded. R-pronouns like Dutch *er* 'it' or *waar* 'what, where, it' and German *da* 'it' or *wo* 'what, where, it', may be extracted from PPs, stranding P (cf. van Riemsdijk 1978) (more accurate representations for extraction of R-pronouns are given below):

- (3) a. *Wo_i/Was_i interessierst du dich für *t_i*? (German)
what interest you.NOM you.ACC for
'What are you interested in?'
- b. *Waar_i/Wat_i heb je op *t_i* gerekend? (Dutch)
what have you on counted
'What have you counted on?'

A priori, it is desirable to reduce the typologies of P-stranding to an independent property that distinguishes the first group of languages from the latter two. However, the problem with the three-way variation in the paradigm in (1)-(3) is that it cannot be accounted

for by one single property that holds or fails to hold of a language as a whole.

Most current accounts of P-stranding fall under this category. Some of these distinguish English/Scandinavian on the one hand and Romance on the other, saying very little about German/Dutch (Hornstein and Weinberg 1981, Kayne 1984). Others make the other cut, English/Scandinavian on the one hand, and German/Dutch on the other, leaving Romance as a marked case without a genuine explanation (van Riemsdijk 1978, Bennis and Hoekstra 1984, Koster 1987).¹ I argue that P-stranding is but a syntactic correlate of theory of morphological suppletion. More specifically, I suggest to relate the lack of P-stranding to syntactic D-to-P incorporation, which manifests itself most clearly in the morphological suppletion of P+D. Thus, when D incorporates into P, it can no longer move with NP (or DP), stranding P. My account makes the correct partition with respect to P-stranding. Romance as well as (to a slightly lesser extent) German and Dutch permit no P-stranding, since they have D-to-P incorporation (cf. footnote 4 on lack of P+D suppletion in Dutch, however). By contrast, English and Scandinavian allow Ps to be stranded because they lack D-to-P incorporation. I will bring independent evidence to bear on my claims, and show that it correctly predicts the attested variations of P-stranding.

1. Syntactic constraint on extraction and P-stranding

van Riemsdijk (1978:160) suggested that P-stranding be constrained by the general condition on extraction in (4):

(4) The Head Constraint (HC)

No rule may involve X_i/X_j and Y_i/Y_j in the structure

... X_i ... [H^n ... [H' ... Y_i ... H ... Y_j ...] H' ...] H^n ... X_j ...

(where H is the phonologically specified (i.e. non-null) head and H^n is the maximal projection of H (H''' in our framework))

Thus, movement out of PPs, like out of other categories, must move through the Spec position to avoid a violation of the HC.

¹According to King and Roberge (1990), Acadian French spoken in Prince Edward Island, Canada allows relatively free stranding of Ps:

- (i) a. Quoi-ce que tu as parlé hier à Jean de?
 what-it that you have talked yesterday to Jean about
 'What did you talk to Jean about yesterday?'
 b. Robert a été parlé beaucoup de au meeting.
 Robert has been talked a lot of at the meeting
 'Robert was talked about a lot at the meeting.'

Remarkably, it allows P to be stranded in an adjunct domain, impossible in English. Lack of access to more detailed description of the language prevents me from further discussing this dialect of French.

I will also not discuss cases like (ii), which Zribi-Hertz (1984) argued involve a null pronoun rather than movement of the complement of P, as the apparently stranded P is in a syntactic island for extraction:

- (ii) a. Je connais bien cette valise, car je voyage avec.
 I know well this suitcase because I travel with
 'I know this suitcase well, for I always travel with it.'
 b. Ce banc, savez-vous qui doit sauter par-dessus.
 this bench, know-you who must jump over
 'This bench, do you know who must jump over?'

In Dutch, R-pronouns must appear to the left of Ps (cf. *erop*/**oper* ‘on it’; *daarop*/**opdaar* ‘on there’), while non-R-pronouns like *hem* ‘him’ *die* ‘that one’ or *wie* ‘who’ must appear to the right (cf. *op hem*/**hem op* ‘on him’; *op wie*/**wie op* ‘on whom’, van Riemsdijk 1978:37). If we take the left-complement of a P as appearing in the Spec PP position (cf. also Corver 1990), then we would expect that from the perspective of the HC R-pronouns may be extracted out of PPs, stranding Ps. The expectation is borne out:

- (5) a. Ik had niet [_{PP} er_i [op t_i]] gerekend. (Dutch)
 I had not it on counted
 ‘I had not counted on it.’
 b. Ik had er_i niet [_{PP} t_i [op t_i]] gerekend.

If movement is further subject to the structure preserving constraint (SPC, Emonds 1976:5) restricting movement of a phrase to a position where it can be generated independently, then non-R-pronouns may not use the Spec of PP as escape hatch for extraction out of PP, since they cannot be independently generated there:

- (6) a. Ik had niet [_{PP} [op hem]] gerekend. (Dutch)
 ‘I had not counted on him.’
 b. *Ik had niet [_{PP} hem_i [op t_i]] gerekend.
 c. *Ik had hem_i niet [_{PP} t_i [op t_i]] gerekend.

The same explanation can be given for the lack of P-stranding in Romance. The complement of P never appears as to the left of P, ie it never shows up in the Spec PP (cf. French *J’ai parlé à Jean* ‘I talked to Jean’ vs **J’ai parlé Jean à*). Therefore, movement of the complement of P, stranding P, would violate either the SPC if it moves through Spec PP, or the HC if it moves directly out of PP:

- (7) a. *Qui_i as-tu parlé [_{PP} [à [t_i]]]? (French)
 ‘Who did you talk to?’
 b. *Qui_i as-tu parlé [_{PP} t_i [à [t_i]]]?

For English, van Riemsdijk (1978:226ff) argued that evidence from sluicing (Ross 1967) shows that a *wh*-phrase may independently appear in Spec PP (cf. *John left, but I don’t know who with*), and that a *wh*-phrase uses the Spec PP as escape hatch to move out of PP. In Dutch, a non-R-pronoun can be extracted as a left-complement of a P, however:

- (8) a. Je zei dat hij [_{PP} de boom in] geklommen is. (Dutch)
 you said that he the tree in climbed is
 ‘You said that he has climbed into that tree.’
 b. Welke boom_k zei je dat hij [_{PP} t_k in] geklommen is?
 ‘Which tree did you say that he has climbed into?’

If non-R pronouns are not in Spec PP, then the HC would bar them from moving out of PP. Van Riemsdijk (1978) argued that in (8b) P incorporates into V (Evers 1975); as a result, the head position of the PP is empty, the HC no longer applies:

- (9) a. Je zei dat hij [_{PP} de boom t_j] [in_j+geklommen] is. (Dutch)
 b. Welke boom_k zei je dat hij [_{PP} t_k t_j] [in_j+geklommen] is?

In fact, examples like those in (10) indicate that P may incorporate into V, as it may (optionally) raise together with V to the right of the auxiliary:

- (10) a. Je zei dat hij [_{PP} de boom t_j] t_i is [_{in_j}+geklimmen]_i (Dutch)
 ‘You said that he has climbed into that tree.’
 b. Welke boom_k zei je dat hij [_{PP} t_k t_j] t_i is [_{in_j}+geklimmen]_i?
 ‘Which tree did you say that he has climbed into?’

However, there are two problems with van Riemsdijk’s account of P-stranding. If we take the sluicing examples in (11) as evidence that these particular (more complex) *wh*-phrases may not independently appear in Spec PP, we then would expect that these *wh*-phrases may not use Spec PP as escape hatch to move out of PPs, contrary to facts:

- (11) a. *John left with some students, but I don’t know [_{PP} which ones_i [with [t_i]]
 (cf. John left with some students, but I don’t know with which ones)
 b. *Mary brought in these books, but I don’t know [_{PP} which class_i [for [t_i]]
 (cf. Mary brought in some books, but I don’t know for which class)
 (12) a. Which ones/students_i did John leave [_{PP} with t_i]?
 b. Which class_i did Mary bring in these books [_{PP} for t_i]?

Moreover, the incorporation analysis for (9)-(10) fails to explain why a non-R pronoun may be extracted in cases like (13) where P is clearly not incorporated into V. Movement out of the PP in (13) apparently violates the HC:

- (13) a. Welke boom_k klom Jan [_{PP} t_k in]? (Dutch)
 which tree climbed Jan into
 ‘Which tree did Jan climb into?’
 b. Ik geloof dat Jan de boom_k gisteren [_{PP} t_k in] t_i is geklimmen_i.
 I think that Jan the tree yesterday in is climbed
 ‘I think that Jan climbed into that tree yesterday.’
 c. Welke boom_k zei je dat hij [_{PP} t_k in] t_i is geklimmen_i?
 ‘Which tree did you say that he climbed into?’

Despite these problems, van Riemsdijk is essentially correct in that extraction out of PPs in German and Dutch proceeds from Spec PP (cf. section 4.2).

2. Syntactic reanalysis account for P-stranding

Hornstein and Weinberg (1981:60-61) proposed a Case solution to P-stranding claiming that there is a universal filter against traces with oblique Case and that languages may resort to a syntactic rule of reanalysis applying to VP:

- (14) a. Oblique Case Filter
 *_[NP oblique] e
 b. Syntactic rule of Reanalysis
 V → V* (where V c-commands all elements in V*)

They further assume the Case-marking rules marking NP with a [+oblique] Case if it is governed by P (cf. Chomsky 1980, Rouveret and Vergnaud 1980); crucially, the rules must apply after reanalysis.

Along these lines, the syntactic rule of reanalysis would apply to the VP in (15a) to produce a complex verb like that in (15b) or (15c):

- (15) a. John [_{VP} [_V talked [_{PP} to Harry] [_{PP} about Fred]]]
 b. John [_{VP} [_V talked to] Harry [_{PP} about Fred]]
 c. John [_{VP} [_V talked to Harry about] Fred]

A *wh*-phrase object of these reanalyzed verbs may then be extracted since after reanalysis it is no longer governed and Case-marked with a [+oblique] Case by P; the (apparent) object of the preposition (*to* or *about*) is in fact an object of a reanalyzed verb:

- (16) a. Who_i did John [_{VP} [_V talk to] t_i [_{PP} about Fred]] ?
 b. Who_i did John [_{VP} [_V talk to Harry about] t_i] ?

The analysis correctly predicts that Ps may not be stranded in PPs that are not part of a VP since the syntactic rule of reanalysis applies only to elements attaching to VP. Thus, P-heads of sentential PPs, PPs in COMP, or extraposed PPs cannot be stranded; these PPs are not (locally) c-commanded by V:

- (17) a. *What time_i did John arrive [_{PP} at t_i] ?
 b. What conclusion_i did John arrive [_{PP} at t_i] ?
 (18) a. *Who(m)_j do you believe Fred thinks [_{PP} to t_j]_i Joan talked t_i?
 b. *Who(m)_j do you believe [_{PP} to t_j]_i Fred thinks Joan talked t_i?
 (19) a. Who_i did John [_V talk to] t_i about Harry yesterday?
 b. ??Who_j did John talk t_i about Harry [_{PP} to t_j]_i yesterday?

However, one must further assume an adjacency constraint on the syntactic rule of reanalysis (Hornstein and Weinberg 1981:67) so that it can apply to cases like (9) and (20) where P and V are adjacent, but not to cases like (6a):

- (20) a. ... weil man nie davon [_V hörte] (German)
 because one never it-of heard
 ‘... because one never heard of it.’
 b. ... weil man da_i nie t_i [_V von hörte]

Now, if P and V may be reanalyzed as a syntactic unit, then they should behave as such in other syntactic environments. The prediction is false in cases like (21):

- (21) a. * [_V von hörte]_i man da nie t_i? (German)
 ‘Did one never hear of it?’

- b. * $[_V \text{ in klom }]_i \text{ Jan de boom niet } t_i?$ (Dutch)
 'Did Jan climb into the tree?'

The major problem with the reanalysis account is that it does not explain how the examples in (3) with an R-pronoun extracted and (22) are possible where P is clearly not adjacent to V and cannot be reanalyzed with it, and yet P may be stranded.²

- (22) a. $Wo_i \text{ h\"or}t\text{e man nie } [_{PP} t_i \text{ von }]?$ (German)
 'What did one never hear of?'
 b. $Welke boom_i \text{ klom Jan } [_{PP} t_i \text{ in }]?$ (Dutch)
 'Which tree did Jan climb into?'

In addition, insofar as the ungrammaticality of the examples in (17)-(19) can be excluded on independent grounds, the explanatory adequacy for the reanalysis account of P-stranding is rather limited. Since sentential PPs in (17), preposed PPs in (18) (it is unclear, however, whether these are in COMP, ie Spec CP) and extraposed PPs in (19) are clearly in adjoined positions, extraction out of these PPs is independently excluded by Huang's (1982) Condition on Extraction Domain (CED), barring movement out of a non-lexically governed domain. In (23) where no P-stranding is involved a phrase is extracted out of a non-lexically governed domain, violating the CED. We can thus conclude that the impossibility of the examples in (17)-(19) is independent from P-stranding:

- (23) a. *What_i did John read the newspaper [before Bill wrote t_i]?
 b. *Which book_i did Fred meet the man [who bought t_i]
 c. *About who(m)_j did John claim (that) [books t_j]_i many people will buy t_i ?
 d. *?Whose friends_i is it obvious [that Mary likes t_i]?

The reanalysis account of P-stranding is also inadequate from a cross-linguistic point of view. As Hornstein and Weinberg (1981:68) noted, one must assume that languages like Romance, which do not allow P-stranding at all, have no syntactic rule of reanalysis. But if no other property is brought to bear on the lack of P-stranding, the assumption is simply a conceptually unsatisfying stipulation.

3. Government-theoretic accounts of P-stranding

Kayne (1984:115ff) pointed out that contrary to Hornstein and Weinberg's (1981) claim there is good reason to suppose that a syntactic rule of reanalysis of sorts exists in Romance, as evidenced not only in V-V causatives (cf. *faire lire* 'to cause to read', Rouveret and Vergnaud 1980), but also in V-N complex predicates (cf. *mettre fin de* 'to put an end to', Pollock 1979). He thus proposed a constraint on elements undergoing the reanalysis rule to the effect that they must govern in the same way. He argued that Vs and Ps govern in the same way in English in assigning structural case, whereas in French Ps do not govern and assign Case structurally like Vs. Consequently, Vs and Ps may be reanalyzed in English, but not in French.

²Van Riemsdijk (personal communication) pointed out that the contrast between (21) and (22) is consistent with the incorporation analysis if V is taken to incorporate (Roberts 1991) from the V+P complex when it undergoes verb-second. Even if this turns out to be true, the contrast still does not constitute independent evidence that V and P is a syntactic unit.

Kayne (1984) showed three differences between English and French in the structure in (24), where V selects CP as complement and C is filled with a preposition (**P-complementizer**), claiming that Ps govern differently in the two languages:

(24) ... V [_{CP} C [_{IP} XP ...

First, the English P-complementizer *for* allows a lexical subject in the XP position, but the French P-complementizer *de* does not (cf. *It would be a pity for something to happen to him* vs **Ce serait dommage de quelque chose lui arriver*). Second, French *de* permits a phonetically empty pronominal in the XP position, while English *for* does not (cf. *Ce serait dommage de PRO*/**Jean partir maintenant* vs **It would be a pity for John*/**PRO to leave now*). Third, English generally allows a lexical subject in an infinitival complement to Exceptional Case-marking (ECM) verbs, but French permits it only to the extent that the lexical subject undergoes *wh*-movement (cf. *I believe John to be the most intelligent of all* vs **Je crois Jean être le plus intelligent de tous* vs *Quel garçon crois-tu être le plus intelligent de tous?* ‘Which boy do you believe to be the most intelligent?’).

Kayne claimed that all these three differences between English and French would have a unified account if in French Vs govern structurally, but Ps govern NP only in the sense of subcategorization, while in English both Vs and Ps govern structurally. Along these lines, the reason why French *de* allows a phonetically null pronominal PRO but not a lexical one in the XP position in (24) is due to Ps not governing that position (cf. the PRO theorem, Chomsky 1981). Moreover, if ECM-complements are headed by a phonetically empty P-complementizer Φ in the C position, which assigns Case to the XP position by transmitting the Case from V in English but would fail to do so in French since it does not govern the XP position, then one can explain why French ECM constructions may not have a lexical subject staying in the XP position.

Despite its elegance, Kayne’s account for the differences between English and French Ps with respect to government only holds of the configuration in (24). In cases like (25), however, both V and P govern NP in the sense of subcategorization, and thus have the same government property; yet, P may be stranded in English, but not in French:

- (25) a. Which candidate_{*i*} have you voted [_{PP} for *t_i*]?
 b. *Quel candidat_{*i*} as-tu voté [_{PP} pour *t_i*]? (French)

Furthermore, the account would not work for the limited cases of P-stranding in German and Dutch (cf. the examples in (13) and (22)). In fact, Kayne (1984:116) noted that P-stranding in these languages might not involve reanalysis. It thus seems that the empirical coverage of the reanalysis account is confined to English and Romance.

Bennis and Hoekstra (1984:34) proposed a variant of the government-theoretic account for P-stranding, crucially without reanalysis. In particular, essentially following Kayne (1984), they suggested a gap condition according to which a gap must be linked to its antecedent by a connected g-projection of structural governors. G-projection is defined in terms of canonical government bearing on whether the language is VO or OV (eg, prepositions do not canonically govern their complements in OV languages). Koster’s (1987) account is also along these lines, except the link between the gap and the

antecedent is constrained by government harmony, requiring that the structural governors on the link govern in the same direction (cf. Kayne's constraint on reanalysis). Thus, with a categorial distinction between prepositions and postpositions, these two government-theoretic accounts can explain the grammatical contrast in (26):

- (26) a. Ik had er_i niet [_{pp} t_i op] gerekend. (Dutch)
 'I had not counted on it.'
 b. *Ik had hem_i niet [_{pp} op t_i] gerekend.
 'I had not counted on him.'

The gap in in (26a) is linked to its antecedent by a connected g-projection since the verb *gerekend* 'count' canonically governs the PP and the P *op* 'on' canonically governs the gap. By contrast, the gap in (26b) is not linked to its antecedent by a connected g-projection, the P *op* 'on' not canonically governing the gap.

A major problem with these accounts is that they give no genuine explanation for the lack of P-stranding in VO-languages like Romance. As Bennis and Hoekstra (1984:35, 41) noted, whether or not a specific category is a structural governor appears to some extent to be a language particular matter, at best a restatement of the facts. Moreover, for German and Dutch one must assume that what looks like the same P is in fact categorially distinct, one is a preposition and the other a postposition with different canonical government properties. Insofar as no independent property can be brought to bear on the distinction apart from word-order, one might wonder whether the notion of canonical government is warranted.

4. P-stranding and syntactic D-to-P-incorporation

I suggest to relate P-stranding to the independent property of syntactic incorporation of D into P, evidence for which is most clearly seen in suppletive forms of D+P. It is a noticeable fact about Romance and German that P sometimes coalesces with the following D into a suppletive form, as illustrated in (27)-(28):³

- (27) a. Jean a parlé du sujet le plus difficile. (French)
 Jean have talked about-the subject the most difficult
 'Jean talked about the most difficult subject.'
 Suppletive forms: du=de le, des=de les, duquel=de lequel, à les=aux, à le=au,
 desquels=de lesquels 'of the', à lequel=auquel, à lesquels=auxquels 'to the'
 b. Gianni ha parlato del soggetto più difficile. (Italian)

³I have no account for cases like (i) where Ps begin with a vowel. The leftmost R-pronouns are doubled with what looks like a pronoun *da* and the semi-vowel *r* (*dar* is preferably reduced to *r*):

- (i) a. Wo besteht er dar-auf? (German)
 what insist he it-on
 'What is he insisting on?'
 b. Da habe ich dar-an gedacht.
 it have I it-of thought
 'I have thought of it.'

As far as I can tell, the examples in (i) can be argued to involve movement of the R-pronoun *wo* or *da*, since the P may not lie inside a syntactic island (cf. Oppenrieder (1991) for an alternative view, however).

Gianni have talked about-the subject most difficult

'Gianni talked about the most difficult subject.'

Suppletive forms: al=a il, alla= a la 'to the', sul=su il, sulla=su la 'on the'

nel=in il, nei=in i 'in the', del=di il, dello=di lo 'of the', col=con il 'with the'

(28) a. Hans war am Schalter. (German)

'Hans was by the counter.'

b. Im Hause war keiner da.

'Nobody was there in the house.'

Suppletive forms: am=an dem 'by the', beim=bei dem 'at the', im=in dem 'in the', mit'm=mit einem 'with a', übers=über das 'about the', vom=von dem 'from the', etc. (Verschmelzungsformen 'fused forms', Schaub 1979)

Suppose the mapping between syntax and morphology is subject to the condition in (29):

(29) Syntactic constraint on suppletion

Elements undergo suppletive rules must form a syntactic unit X° .

then from this perspective the D+P suppletion facts in (27)-(28) imply that D must incorporate into P in overt syntax, resulting in the configuration in (30):

(30) $[_{PP} [P^\circ + D^\circ_i [_{DP} [t_i [_{NP} [N^\circ]]]]]]]]$

In this structure, the incorporated D and the following NP (or DP) do not form a syntactic constituent; consequently, P cannot be stranded by moving D+NP (or D+DP) (cf. Schwartz (1972) on constraints against moving non-constituents).

Notice that the condition in (29) does not require that elements forming a syntactic X° necessarily undergo suppletion. A verb with agreement and tense morphologies need not have suppletive forms, even though they sometimes do (cf. the suppletive forms *am*, *are*, *was* of English *be*). Thus, there is no requirement that a suppletive form exist whenever D incorporates into P. Unless there is evidence to the contrary, I assume the null hypothesis that all Ds incorporate into Ps in Romance and Germanic except English.⁴

Further facts about P-complementizers in Romance further support the claim that suppletion rules may apply only to elements forming a syntactic X° . As shown in (31), the French P-complementizers *de* and *à* (Huot 1977) do not coalesce with the following clitic pronoun *le* (homophonous with the determiner *le*):

(31) a. Je lui ai demandé [de le/*du lire] (French)

'I asked him to read it.'

b. Nous sommes prêts [à le/*au faire]

⁴This assumption might seem unmotivated for Dutch, which has no D+P suppletive forms. As Dutch shares with German a large number of syntactic properties (syntax of verbs, scrambling, impersonal passives, etc), it does not appear implausible that Dutch Ps may have the same properties as German Ps (cf. the motional interpretations of some Ps in the two languages). The lack of suppletive forms for D+P in Dutch is quite expected given the little morphology it has to put on other categories in the grammar, eg case morphologies on nouns, adjectives and determiners.

‘We are ready to do it.’

From the perspective of the constraint in (29), the impossible suppletions in (31) have a very simple explanation: the object pronominal clitics and the P-complementizers arguably do not form an X° . In finite clauses, an object pronominal clitic occurs between the subject and the finite verb, ie below IP (cf. French *Je le lis* ‘I read it’ vs **le je lis*). Hence, there is little reason to think that it appears in a still higher position in infinitivals. As a result, the object clitic is not in a position to incorporate into the P-complementizer to form a syntactic X° with it,⁵ and no suppletive form can arise since they do not meet the required syntactic condition for suppletion in (29).

If P-stranding correlates with the lack of D-to-P incorporation, then one should expect that P may be stranded when D does not incorporate into P, regardless of whether the complement of P is extracted under *wh*-movement or NP-movement (prepositional passives, henceforth **P-passives**). As we will see, the prediction is borne out.

4.1 Lack of P-stranding in Romance

As is well-known, Romance lacks P-passives, ie P may not be stranded under NP-movement:

- (32) a. **Le sujet a été parlé de.* (French)
 the subject have been talked about
 ‘The subject was talked about.’
 b. ... [PP [[de+le_i] [DP t_i [NP sujet]]]]

In (32b), the head D of the DP argument of the P incorporates into the P resulting in the suppletive form *du* (cf. *Il a parlé du sujet* ‘they talked about the subject’). Hence, the surface form in (32a) cannot be derived, since *le+sujet* is not a syntactic constituent.

On the assumption that *wh*-items like *que* ‘what’ *qui* ‘who’ and *quel* ‘which’ in French or *che* ‘what’ *cui* ‘who’ and *qual* ‘which’ in Italian are Ds, the lack of P-stranding under *wh*-movement in these languages follows immediately without further assumption:

- (33) a. **Quel sujet as-tu parlé de?* (French)
 ‘Which subject have you talked about?’
 b. ... [PP [[de+quel_i] [DP t_i [NP sujet]]]]

In (33b), the head D *quel* ‘which’ incorporates into the P *de*; consequently, the D+NP (or D+DP) non-constituent *quel sujet* ‘which subject’ may not be moved, stranding P.

⁵In Italian (and Spanish) object pronominal clitics follow the non-finite verb or occur above the complementizer in cases of clitic climbing (cf. Rizzi 1982:3-5), but it never appears in a position from which it can incorporate into the P-complementizer:

- (i) a. *Piero affermava di conoscer-la molto bene.* (Italian)
 ‘Piero stated that he knew her very well.’
 b. *Piero li venne a chiamare stazione.*
 ‘Piero came to call them at the station.’

4.2 P-stranding under *wh*-movement in German and Dutch

For German and Dutch, the lack of P-stranding by *wh*-movement has the same account as that for Romance. Again, one must assume that *wh*-items like German *wer* ‘who’ *was* ‘what’, *welche* ‘which’ or Dutch *wie* ‘who’ *wat* ‘what’, *welke* ‘which’ are of the category D:

- (34) a. *Welchem Kerl hast du mit gerechnet? (German)
 which guy have you with counted
 ‘Which guy have you counted on?’
 b. ... [_{PP} [[mit+welchem_i] [_{DP} [*t_i* Kerl]]]] ...

If we take R-pronouns, which appear to the left of P, to be in Spec PP (cf. van Riemsdijk 1978 and Corver 1990), from where it cannot incorporate into P (cf. Travis’ (1984) Head Movement Constraint), it then follows that they may move out of PP, stranding P:⁶

- (35) a. Wo_i hast du [_{PP} *t_i* [mit]] gerechnet? (German)
 what have you with counted
 ‘What have you counted on?’
 b. ... daß ich da_i nicht [_{PP} *t_i* [mit]] gerechnet habe.
 ‘... that I have not counted on it.’

Examples like those in (36) independently show that R-pronouns in Dutch are not incorporated into P. Here, an R-pronoun is separated by an adverbial from the P selecting it as argument (cf. van Riemsdijk 1978:87).⁷ It may move either together with the adverb and the P or by itself, stranding P:

- (36) a. Vlak er na, er vlak na. (Dutch)
 ‘right after it’
 b. [_{PP} er vlak achter]_i geloof ik dat Jan toen *t_i* stond.
 it right after believe I that then stood
 ‘I believe that Jan then stood right behind it.’
 c. Ik geloof dat Jan er_i toen [_{PP} *t_i* vlak achter] stond.
 d. Waar_i denk je dat Jan [_{PP} *t_i* vlak achter] stond?
 ‘Where do you think that Jan stood right behind?’

Exactly the same account can be given to cases like (13), repeated in (37), where P is stranded as a result of extracting a non-R-pronoun:

- (37) a. Welke boom_k klom Jan [_{PP} *t_k* in]? (Dutch)

⁶It is an independent issue whether R-pronouns originate in the Spec position or move from the complement position. On conceptual grounds, one might assume the latter so that all complements originate from the same position, but I see no empirical evidence for it. I will not pursue this issue in this paper, however.

⁷Note that the examples in (36) by themselves do not show that the R-pronoun *er* is in Spec PP; it might very well be in an adjoined position. What these examples do show, however, is that the R-pronoun does not incorporate into P, as mentioned in the text. My analysis of P-stranding need no modification if it turns out to be adjoined to PP.

- ‘Which tree did Jan climb into?’
- b. Ik geloof dat Jan de boom_k gisteren [_{PP} *t_k* in] *t_i* is geklommen.
‘I think that Jan climbed into that tree yesterday.’
- c. Welke boom_k zei je dat hij [_{PP} *t_k* in] *t_i* is geklommen?
‘Which tree did you say that he climbed into?’

4.3 Prepositional passives in Germanic

Completely different from Romance (cf. section 4.1), English allows P to be stranded under both *wh*-movement and NP-movement:

- (38) a. Which carpet_i did they step [_{PP} on *t_i*]?
b. The carpet_i has been stepped [_{PP} on *t_i*]

For German and Dutch, the impossibility of stranding a P under NP-movement has exactly the same explanation as that given for Romance. As shown in (39), the object of a P may not move to subject position, since D incorporates into P:

- (39) a. Es wurde völlig mit dem Kerl gerechnet. (German)
it became fully with the guy counted
‘The guy have been fully counted on.’
b. *Dem Kerl_i wurde völlig mit *t_i* gerechnet.
‘The guy has been fully counted on.’
c. ... [_{PP} [[in+dem_i] [_{DP} *t_i* Kerl]]]

As R-pronouns may move out of PP, one would expect that they not only can move out of PP, but also may occur in the position of *dem Kerl* in (39b), the expectation is borne out:

- (40) a. Es wurde da_i völlig [_{PP} *t_i* mit] gerechnet. (German)
‘It has been fully counted on.’
b. Da_i wurde völlig [_{PP} *t_i* mit] gerechnet.

Maling and Zaenen (1985) argued that cases like (40b) are not genuine P-passives but involve topicalization of the object of the P, ie *wh*-movement. They gave the Icelandic examples in (41) as evidence that the fronted objects of Ps are not in subject position, since they retain the case assigned to it in-situ, and exhibit no subject properties like raising, reflexivization and the locality for topicalization:

- (41) a. Þessa kona_i er oftast talað vel [_{PP} um *t_i*] (Icelandic)
that woman-ACC is usually spoken well of
b. Þennan ref_i hefur aldrei verið skotið [_{PP} á *t_i*]
that fox-ACC has never been shot at.

They thus concluded that P-stranding is not a unified phenomena and suggested that lexical reanalysis is needed to account for P-passives.

Agreement morphology on the finite verb further shows that the fronted object of the P is not in subject position. The German pronoun *da* may have a plural antecedent (cf. *einer davon* ‘one of them’), and yet may not agree with a finite verb; the same agreement facts hold in Icelandic as well:

- (42) a. **Da_i wurden völlig [pp t_i mit] gerechnet.* (German)
 they became-PL fully with counted.
 b. *Krakkana_i er/*eru oftast talað vel [pp um t_i]* (Icelandic)
 the kids-ACC is/are usually spoken well of

However, from the fact that the fronted object of the P is not in subject position it does not follow that P-stranding has no unified explanation and that P-passives require an independent account. What needs to be explained is why the fronted object of the P appears in subject position in English but not in other Germanic languages.

English is unique among the Germanic languages in not having impersonal passives (Vikner 1995:209):

- (43) a. ... *daß pro* getanzt worden ist. (German)
 b. ... *að Það* hefur verið dansað. (Icelandic)
 c. ... *at der er* blevet danset. (Danish)
 d. *... that there/it has been danced.

Suppose the passive morpheme varies from language to language in that it must or need not absorb case (Baker 1988:345ff, refining the case-theoretic accounts of NP-movement by Chomsky 1980 and Jaeggli 1982), then variations of impersonal passives can be related to the parametric choice of case absorption. Now, if the passive morpheme *-en* in English must absorb case, then the ungrammaticality of the example in (43d) follows directly since there is no (accusative) case for it to absorb. By contrast, the passive morpheme in other Germanic languages need not absorb case, hence the examples in (43a)-(43c) are possible.⁸ I claim that impersonal passives are in fact related to P-passives.

Consider the structure in (44a) for the example in (38b). Since the English passive morpheme *-en* on the thematic verb must absorb case, a case must be provided for. I propose that the case feature of the P moves to the thematic verb (cf. Move-F, Chomsky 1995:261-271) where it is absorbed by the passive morpheme. As a result, the object of the P must move to the subject position where it is assigned nominative Case:

⁸Vikner (1995: 209) suggested that the grammatical contrast in (43) be attributed to a condition on chains consisting of the expletive and the passive morpheme, requiring case-assignment by government. It is by no means obvious that a phonetically empty expletive is warranted for German, and there is no obvious chain containing an expletive in the Icelandic example in (ib):

- (i) a. *Ist (*es) getanzt worden?* (German)
 is it danced become
 ‘Has there been dancing?’
 b. *Hafur (*Það) verið dansað.* (Icelandic)
 has it been danced

and Germanic, the analysis also has the advantage of requiring no preposition vs postposition categorial distinction for Ps.

However, there are two conceptual problems that I am not able to resolve here. One is the issue of why R-pronouns may appear in Spec PP, but non-R-pronouns may not, and the other is whether one can relate an independent property distinguishing one type of languages from another (eg English vs French) to D-to-P incorporation. Unfortunately, I have to leave these problems for another occasion.

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References

- Allan, R., P. Holmes and T. Lundskær-Nielsen. 1995. *Danish, a comprehensive grammar*. London: Routledge.
- Anderson, Stephen. 1977. "Comments on Wasow," in *Formal syntax*, Peter W. Culicover, Thomas Wasow and Adrian Admajian (eds), 361-377. New York: Academic Press.
- Baker, Mark. 1988. *Incorporation*. Chicago: The University of Chicago Press.
- Bennis, Hans and Teun Hoekstra. 1984. Gaps and parasitic gaps. *The Linguistic Review* 4: 29-87.
- Chomsky, Noam. 1980. On Binding. *Linguistic Inquiry* 11: 1-46.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Corver, Norbert. 1990. The syntax of left branch extractions. Doctoral dissertation, Katholieke Universiteit Brabant, Tilburg.
- Emonds, Joseph. 1976. *A transformational approach to English syntax*. New York: Academic Press.
- Evers, Arnold. 1975. The transformational cycle in German and Dutch. Bloomington: Indiana University Linguistics Club.
- Hornstein, Norbert and Amy Weinberg. 1981. Case theory and preposition stranding. *Linguistic Inquiry* 12: 55-91.
- Huot, Hélène. 1977. Recherches sur la subordination en français. Thèse de Doctorat d'Etat, Université de Paris VIII.
- Huang, James C-T. 1982. Logical relations in Chinese and theory of grammar. Doctoral dissertation, MIT.
- Jaeggli, Osvald. 1982. *Topics in Romance syntax*. Dordrecht: Foris.
- Kayne, Richard. 1984. *Connectedness and binary branching*. Dordrecht: Foris.
- King, Ruth and Yves Roberge. 1990. Prepositional stranding in Prince Edward Island French. *Probus* 2: 351-369.
- Koster, Jan. 1987. *Domains and dynasties*. Dordrecht: Foris.
- Oppenrieder, Wilhelm. 1991. Preposition stranding im Deutschen? - Da will ich nichts von hören! In *Strukturen und Merkmale Syntaktischer Kategorien*, Gisbert Fanselow and Sascha Felix (eds), 159-173. Tübingen: Gunter Narr.
- Pollock, Jean-Yves. 1979. Réanalyse et constructions impersonnelles, *Recherches linguistiques* 8: 72-130.
- van Riemsdijk, Henk. 1978. *A case study in syntactic markedness*. Lisse: The Peter de Ridder Press.
- Rizzi, Luigi. 1982. *Issues in Italian syntax*. Dordrecht: Foris.

- Roberts, Ian. 1991. Excorporation and minimality. *Linguistic Inquiry* 22: 209-218.
- Ross, John Robert. 1967. Constraints on variables in syntax. Doctoral dissertation, MIT.
- Rouveret, Alain and Jean-Roger Vergnaud. 1980. Specifying reference to the subject: French causatives and conditions on representations. *Linguistic Inquiry* 11: 97-202.
- Schaub, Sybille. 1979. Verschmelzungsformen von Präpositionen und Formen des bestimmten Artikels im Deutschen. In *Phonologische Probleme des Deutschen*, Heinz Vater (ed), 63-104. Tübingen: Gunter Narr.
- Schwartz, Arthur. 1972. Constraints on movement transformations. *Journal of Linguistics* 8: 35-85.
- Travis, Lisa. 1984. Parameters and effects of word order variations. Doctoral dissertation, MIT.
- Vikner, Sten. 1995. Verb movement and expletive subjects in the Germanic languages. Oxford: Oxford University Press.
- Zribi-Hertz, Anne. 1984. Prépositions orphelines et pronoms nuls. *Recherches linguistiques* 12: 46-91.

