POLISH OPTIONAL MOVEMENT[*]

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1. *Introduction*

In current Minimalism Move/Attract α is considered to be a Last Resort operation driven by the need to eliminate features unreadable at the PF or LF interfaces (see, e.g., Chomsky 1995). Crucially, if elements move because they are forced to, then there should be no language exhibiting a structure with the same Numeration and yet with different linear orders.[1] Consequently, optional movement poses a problem for current Minimalism. In this paper I will discuss certain properties of various word orders in Polish and will attempt to propose a minimalist account of Polish optional movement. As a starting point, I will assume the minimalist framework proposed in Chomsky (1995, Chap.4) and later modified in his MIT 1997 lectures.

2. *Polish simple clauses and the Head Parameter*

In simple transitive clauses such as (1) Polish exhibits free word order:

(1) *Adam   zobaczył   Roberta.*
    Adam-NOM   saw   Robert-ACC
    "Adam saw Robert."

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[1] I will abstract here from X^0 Optional Movement and will assume that *John impressed Mary* and *Mary impressed John* involve distinct numerations.

Six word orders are allowed (SVO, SOV, OSV, OVS, VSO, VOS), all of which can be produc ed with the same non-Topic/Focus stress pattern. [2] The various possible surface orders can be base generated or result from movement. The second possibility raises the question:which order is derived from which?[3] In attempting to establish the basic word order of Polish, traditional grammarians, like Klemensiewicz (1949), assume that Polish has an SVO basic order (studies were based on cor pus data where 75% of sentences have a Subject preceding the predicate).[4] Bartmiński (1973) also notes the large asymmetry in Subject and Object positions in Polish. In the majority of cases (about 80%), the Subject precedes the Object. This is regardless of whether they have morphological markings distinguishing them.[5] Bartmiński (1973:90) reports that 91% of native speakers' judgements are that (2a) has the interpretation as in (i). However, the judgements for some native speakers change when given a structure as in (2b), and the interpretation in (ii) becomes available to more speakers.

(2)   a. *Kurczę widzi cielę.*   b. *Kurczę cielę widzi.*
          chick   sees   calf   chick   calf   sees
          (i) The chick sees a/the calf.
          (ii) The calf sees a/the chick.

Consequently, there seems to be a preference for an SVO order over any other. This preference, together with the fact that Polish is a prepositional language (see 3 below), indicates that Polish is head-initial.[6]

(3)   a. *Janek poszedł do Marysi.*   b.**Janek poszedł Marysi   do.*
          John   went   to Mary   John   went   Mary   to

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[2] I assume that Topic/Focus manifests itself by having a special stress pattern. Some of the variations of (1) are more natural with special Topic/Focus stress patterns.

[3] Bošković & Takahashi (1995) propose that in Japanese the different word orders are created via Merge and the relevant features of the displaced Subje ct, Object, etc., are checked at LF through feature lowering which is triggered by the need to assign θ-roles to arguments which have been optionally merged in a non-θ role assigning position. I will assume that Polish OM is overt movement since it exhibits island effects and can result in feature checking.

[4] Interestingly, the order within the predicate, as noted by Willim (1989) is usually VO, with the OV order usually present in certain locative constructions. This might point to an analysis of locative inversion along the lines of Collins (1997).

[5] This does not imply that Polish is head-initial, since the crucial position is that of the verb.

[6] Willim (1995) also argues that in adjectival and nominal phrases there is a strong tendency for a complement position to follow a head and proposes that other orders are derived. Note that the notion of Head Parameter only makes sense if we reject the proposals in Kayne (1994). I will not   discuss these   issues   here,   since   I   will   assume that Polish exhibits a SPECIFIER –HEAD –COMPLEMENT order which can be account ed for in terms of Kayne's (1994) LCA or the Head Parameter.

3. *The domain of Polish O(ptional) M(ovement)*

Let us assume that Polish has optional overt synt actic movement (OM) which is responsible for at least some of the alternations in (1).[7] OM seems not to be limited to simple clauses. It can extract phrases from complements in tensed subjunctive and infinitival clauses (4), but not, following Willim(1989), from tensed indicative clauses, especially with an overt matrix Subject(5).[8]

(4) a. [*Ten dom*]$_i$ *Jan   chce   kupić t$_i$.*
      [this house]   John   wants   to buy
      "John wants to buy this house."

    b. [*Ten dom*]$_i$ pro *chcę żeby$_9$ Jan obejrzał t$_i$.*
      [this house]   want SUBJ John see
      "I want John to see this house."

(5) a.?[*Ten dom*]$_i$ pro *wiem że   Jan kupił   t$_i$.*
      [this house]   know   that   John bought
      "I know that John bought this house."

    b.*?[*Ten dom*]$_i$ *ja   wiem   że   Jan kupił t$_i$.*
      [this house]   I   know   that John bought
      "I know that John bought this house."

Willim (1989) on the basis of examples of *wh*-island violations like those in (7) and (8) shows that P olish OM and *wh*-movement are constrained by Subjacency, that is by similar locality conditions.[10] However, OM is marginal in examples like (7) since, as I have shown above, OM is worse out of tensed indicative clauses (5b). However, examples in (6) show t hat when OM is allowed, a weak *wh*-island violation is still visible. Example (6c) shows that OM out of a subjunctive clause across a *wh*-word in SpecCP is worse than examples

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[7] VSO orders might result from verb raising to C^0. Unfortunately, for reasons of space, I will set aside the issues connected with optional X^0 movement in Polish. However, I will assume that Polish has overt raising of V to T, since Polish exhibits a rich agreement paradigm (Vikner 1997). I will use the term 'OM' and not 'scrambling' since it is not clear at this stage if Polish has scrambling as opposed to different kinds of topicalisation. However, this raises the question whether topicalisation can be optional.

[8] The judgements are the same with factive verbs like "believe".

[9] Here and elsewhere in this article SUBJ glosses 'Subjunctive' for occurrences of *(że)by*. (Ed.)

[10] I assume that *wh*-island effects, and probably other Subjacency effects, can be considered to be MLC violations in current Minimalist frameworks (see Chomsky 1995, Collins 1997).

without any OM (6d).[11] Interestingly enough, *wh*-island effects disappear (in *wh*-movement and OM) when the *wh*-word is not in SpecCP, as in (6a,b).

(6) a. *Janowi_i oni chcieli żeby co   sprzedać t_i?*
    John   they wanted SUBJ what sell
    "What did they want to sell John?"

    b. *Komu_i oni chcieli żeby   co   sprzedać t_i?*
    whom   they wanted SUBJ what sell
    "Whom did they want to sell what?"

    c. ?? *Janowi_i oni chcieli co   żeby   sprzedać t_i?*
    John   they wanted what SUBJ   sell
    "What did they want to sell John?"

    d. ? *Oni   chcieli co żeby sprzedać Janowi?*
    they   wanted what SUBJ sell   John
    "What did they want to sell John?"

(7) ? *Jana_i oni zastanawiali się   kto odwiedził t_i?*
    John they wondered   REFL who visited
    "Who did they wonder visited John?"

(8) ? *Kogo_i oni zastanawiali się   kto odwiedził t_i?*
    who   they wondered   REFL who visited
    "Who did they wonder who visited?"

The above properties have been usually analysed in terms of Move α within the GB frameworks.[12] Hence I will assume that Polish OM is a result of movement.[13] However, it is unclear what is its nature. Is it overt syntactic or PF (non-syntactic) movement (if one assumes that Subjacency can be a PF condition, see Huang 1990)?

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[11] The relative unacceptability of (6d) is probably due to the fact that the subjunctive marker has a tendency to encliticize to the matrix verb (see Szczegielniak 1997).

[12] Also, Witkoś (1993:168) argues that both OM and *wh*-movement produce parasitic gaps.

    (i) *Studenta_i ona przysłała do mnie t_i nie uprzedziwszy e_i o konsekwencjach.*
    student   she sent   to me   t not warning   e about consequences
    "She sent me a student without warning him (me) about the consequences."

    (ii) *Ona przysłała do mnie studenta_i nie uprzedziwszy e_i o   konsekwencjach.*
    she sent   to me   student not warning   e about consequences
    "She sent me a student without warning him (me) about the consequences."

However, (ii) indicates that the parasitic gap argument is not very convincing since there seems to be a gap regardless of whether a phrase has been scrambled or not (Željko Bošković p.c.).

[13] Željko Bošković also pointed out to me that the above data could still be handled by analysing OM as derived via Merge (Bošković & Takahashi 1995). A ban on extraction out of *wh*-islands seems to be the most reliable diagnostic for movement.

4. *Crossover properties of Polish OM and* **wh-*movement***

Similarly to Japanese and German (see Hoji & Saito 1983, Grewendorf & Sabel 1996), Polish OM as well as clause internal *wh*-movement do not exhibit Weak Crossover (WCO) effects as shown in examples (9b) and (9e). However, *wh*-movement differs from OM in cases of long distance movement. The former violates WCO (9f), whereas OM does not (9c,g).[14]

(9) a. *Jego$_i$ przyjaciele podziwiają Jana$_i$.*
          his   friends   admire   John
          "His$_i$ friends admire John$_i$."

   b. *[Jana$_i$]$_k$ jego$_i$ przyjaciele podziwiają t$_k$.*
          John   his   friends   admire
          "His$_i$ friends admire John$_i$."

   c. *[Jana$_i$]$_k$ jego$_i$ przyjaciele chcą zaprosić t$_k$.*
          John   his   friends   want invite
          "His$_i$ friends want to invite John$_i$."

   d. *[Jana$_i$]$_k$ jego$_i$ przyjaciele chcą żeby Robert zaprosił t$_k$.*
          John   his   friends   want SUBJ Robert invite
          "His$_i$ friends want Robert to invite John$_i$."

   e. *[Kogo$_i$]$_k$ jego$_i$ przyjaciele podziwiają t$_k$?*
          who   his   friends   admire
          "Who$_i$ do his$_i$ friends admire?"

   f. **[kogo$_i$]$_k$ ty chcesz by   jego$_i$ przyjaciele podziwiali t$_k$.*
          Who   you want   SUBJ his   friends   admire
          "Who$_i$ I want his$_i$ friends to admire."

   g. *[Jana$_i$]$_k$ ty chcesz by jego$_i$ przyjaciele podziwiali t$_k$.*
          John   you want SUBJ his   friends   admire
          "I want his$_i$ friends to admire John$_i$."

This would seem to indicate that Polish OM is A-movement. However,

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[14] WCO effects arise when an operator A'-binds both a trace and a pronoun contained in an argument XP that c-commands the trace (see Lasnik & Stowell 1991, where they argue that scrambled elements are not true operators). OM and *wh*-movement exhibit, however, Strong Crossover effects:

(i) **Kogo$_i$ on$_i$ lubi?*   (ii) **Janka$_i$ on$_i$ lubi.*
        who$_i$ he$_i$ likes   John$_i$ he$_i$ likes

WCO can also be violated in German (Webelhuth 1992, Sauerland 1996) although according to Grewendorf & Sabel (1996) there is evidence indicating that German scrambling is A-bar movement. Following Saito (1989, 1992), they propose that scrambling does not create a semantically significant operator-variable relation, hence it is not real A-bar movement (for similar proposals see Lasnik & Saito 1991). Another possibility in accounting for the above facts is to assume that *jego* "his" can be linked by *Jan* "John" but not by the *wh*-phrase *kogo* "who".[15] I will not discuss here the various possible accounts of the data in (9). For our purposes it is enough to say that the lack of WCO effects in Polish OM does not imply that OM is A-movement.

The lack of WCO effects in examples involving clause-internal movement of *wh*-phrases seems to pattern together with the lack of   *wh*-island effects of clause-internal *wh*-movement. I will argue that this is because *wh*-phrases can undergo OM clause-internally.

4.1 *Restructuring and Polish OM*

Similarities between *wh*-movement and OM have led many linguists (see Willim 1989, Witkoś 1993) to consider Polish OM to be A-bar movement. One typical property of such movement is its ability to undergo reconstruction, which following Chomsky 1995, I will assume that only A-bar movement can undergo. Hence, (10) is not a Condition A violation (see Saito 1992, Grewendorf & Sabel 1996).[16] Polish optionally moved elements also undergo reconstruction as shown in (11).

(10) a. [*Which pictures of himself$_i$*]$_k$ *does Roger$_i$ hate t$_k$*]
     b. [*Himself$_i$*]$_k$, *John$_i$ hates t$_k$.*
     c. [*An article about herself$_i$*]$_k$ *he suggested that she$_i$ write t$_k$ tomorrow.*

(11) a. [*Sobie$_i$*]$_k$ *Jan$_i$ nie ufa   t$_k$.*
        self   John   not trust
        "John$_i$ does not trust himself$_i$."

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b. [*Siebie$_i$*]$_k$ on chce by Jan$_i$ nienawidził t$_k$.
   self   he wants SUBJ John hate
   "He$_i$ wants John to hate himself$_i$."

c. [*Artykuł o sobie$_{i/j}$*]$_k$ Jan$_i$ kazał t'$_k$ Marii$_j$ PRO$_j$ napisać t$_k$.
   article about self   John told   Mary   write
   "Jan$_i$ told Mary$_j$ PRO$_j$ to write an article about himself$_i$/herself$_j$."

The fact that none of the above examples are Condition A violations, shows that OM in cases like (11) can be undone at LF.[17] Note that the optionally moved phrase does not have to necessarily reconstruct to its base position. The binding facts just indicate that it has to reconstruct to a position where it is c-commanded by the Subject. This seems to indicate that Polish OM behaves like A-bar or PF style movement.[18] (11c) is interesting, since it shows that a DP optionally moved out of an infinitival clause reconstructs to its base or intermediate position, where the anaphor either has the main clause Subject or PRO as the antecedent.[19]

4.2 *Possible OM landing sites*

Consequently, there is evidence supporting the idea that the final landing site of Polish OM exhibits A-bar properties as far as Binding Conditions are concerned. However, I will sharpen the A/A-bar distinction and assume Chomsky's (1995) proposals that there are two types of possible landing sites for overt movement: L-related and non-L-related.[20] The former are Spec, or complement positions projected by lexical items. For our purposes, the set of lexical items is restricted to V, *v* and T.[21] All other positions are non-L-related. I will adopt this division for Polish, however, I will show that the only relevant distin-

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[17] The three Conditions of Binding Theory are as follows, following Harbert (1995:182):

    i. Condition A: An anaphor must be A-bound within its local domain D;
    ii. Condition B: A pronoun must be A-free within its local domain;
    iii. Condition C: An R-expression must be A-free,

where D=Tense in Polish (see Willim 1989). I will assume that Binding Conditions are not subject to parametric variation (unlike D). This in not an uncontroversial assumption. David Pesetsky (p.c.) has pointed out to me that there is some evidence that Slavic languages might have different Binding Conditions. This would obviously be problematic for my proposals.

[18] See Grewendorf & Sabel (1996) for an alternative discussion on on Conditions A and B.

[19] Willim (1989) points out that Polish anaphors can only be Subject-bound. I will assume that both readings of (11c) are grammatical since the reflexive is either bound by the main clause Subject or by PRO which is controlled by the matrix Object.

[20] Although I will use sometimes terminology like A vs A'-movement.

[21] Assuming that there is no separate AGR head.

ction for Polish OM is that between a feature checking and non-feature checking positions. Consequently, an element can be in SpecTP and not checking features of T, but has to reconstruct (to the first feature checking position), thus behaving as if it were occupying a non-L-related position.[22] However, the availability of multiple specifiers raises the question whether all Spec positions of a given lexical head like T are L-related. I will modify the definition of L-relatedness assuming that it is the function of the features that are checked in a given Spec position. Elements which check values for Case, Agreement, EPP, or are θ-marked, are in L-related positions, other feature checking configurations are non-L-related.[23] The adopted definition of L-relatedness predicts that if we assume that functional heads can license non-feature-checking positions (I will argue for this in sections 8-10), these should have properties which differentiate them from feature checking positions. Some properties of non-feature checking movement will make it similar to A or A-bar movement. For example, the lack of WCO effects would make non-feature checking movement more similar to A-movement, on the other hand reconstruction effects would make it look like A-bar movement.[24]

However, we still cannot be certain as to the nature of OM in Polish. Conceivably, it still could be a PF phenomenon, but then its similarity to A-bar movement would remain a mystery. It could be that Polish OM is essentially like English topicalisation. This would account for their similarity (compare (10) with (11)) as far as reconstruction effects are concerned. Reconstruction effects, especially if they are obligatory as in languages like Japanese (see Saito 1992), could also point to the possibility that OM is semantically vacuous, thus additionally providing evidence that OM could be an instance of PF movement. One problem any account of OM has to address concerns the fact that in the minimalist model there is no place for overt syntactic optional movement. Of course, one could resort to postulating the existence of special formal or semantic features whose presence on various functional heads is optional. However, such an approach runs the risk of simply restating the problem but in a more technical fashion. One plausible solution is to assume that optional word orders are gener-ated in overt syntax but that they are a reflex of Merge, the only

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[22] Chomsky (1995:196) proposes that there might be also a broadly L-related position which roughly corresponds to an adjoined position (see Webelhuth 1992 and Mahajan 1990).

[23] When T raises to C, SpecCP will be an L-related position if T features get checked.

operation which linguists like Fukui & Saito (1996) assume to be reprieved from Last Resort. The following section will discuss in more detail such a proposal.

5.   *Polish OM and the Head Parameter*

Fukui (1993) and Fukui & Saito (1996) assume that there is a direct relationship between the ability to undergo optional movement and the value of the Head Parameter (HP) in a given language. HP is supposed to characterise the linear ordering of elements within a clause. It allows to map c-command relations into linear ones. It predicts that languages should be either head-final or head-initial. Fukui (1993) indicates that the parameter is set in a local domain and once the value is set, the linear order of the head and complement is extended to all domains, even non-local ones. Fukui calls this a Canonical Precedence Relation (CPR). Hence, Polish, a prepositional language, is head-initial. Fukui (1993) and later Fukui & Saito (1996) propose that scrambling is sensitive to HP. This results from the fact that there is a Parameter V(alue) P(reservation) M(easure), which following Fukui (1993:400) states:

(12)   *PVP Measure*: A grammatical operation (Move α, in particular) that creates a structure that is inconsistent with the value of a given parameter in a language is costly in the language, whereas one that produces a structure consistent with the parameter value is costless.

PVP allows us to have three kinds of movement. Last Resort movement (in the sense of Chomsky 1995), i.e., movement which is forced for some reason (feature checking), OM which is costless and not feature checking, and, finally, costless feature-checking movement. Japanese is head-final and is correctly predicted to have leftward OM. It follows that Polish OM cannot destroy CPR, hence it should be like English Rightward Movement, for example, extraposition given below (Fukui 1993:410):

(13)   a.   *I read a review of John's book today*
       b.   *I read a review t_i today [of John's book]$_i$*

Fukui's account assumes that the PP has moved rightward past the adjunct. This kind of movement does not violate the CPR and hence is cost-free. However, Polish OM can be leftward (see examples (1-7)), although it is a head-initial language. A possible account of the OM data which would be con-sistent with the Fukui & Saito (1996) model would involve the assumption that Polish has two kinds of OM: one feature-checking which violates HP and one which, like Japanese scrambling and Heavy NP Shift, is not feature-checking but is an

instance of structure building Merge which has as its output a n ordered set of elements and is assumed to be cost-free and not subject to Last Resort. However, I will try to show in later sections that Polish OM is not feature-checking.

6. ***The nature of Polish OM***

Polish OM has Strong Crossover effects (see n.13, above) however, Willim (1989) notes that OM can also allow elements to "escape" Condition C effects.

(14) a.**Ona pokazała mu$_i$ zdjϱcie Janka$_i$ z   Pary$\dot{z}$a wczoraj*.
      she showed   him picture John-GEN from Paris   yesterday
      "Yesterday she showed him$_i$ John's$_i$ picture from Paris."

   b. *Zdjϱcie Janka$_i$ z   Pary$\dot{z}$a ona pokazała mu$_i$ wczoraj*.
      picture   John-GEN from Paris   she   showed   him   yesterday
      "John's$_i$ picture from Paris she showed him$_i$ yesterday."

   c.**Zdjϱcie Janka$_i$ z   Pary$\dot{z}$a on$_i$ pokazał jej wczoraj*.
      picture   John-GEN from Paris   he   showed   her yesterday
      "John's$_i$ picture from Paris he$_i$ showed her yesterday."

Although example (14c) shows that reconstruction of optionally moved phrases is obligatory (o therwise (14c) would be grammatical), the contrast between (14a) and (14b) is pro   blematic to a framework where optional movement obligatorily undergoes reconstruction. Example (14b) should be just as ungrammatical as (14a) which is a Condition C violation. This, at first glance, indicates that the effects of OM must be allowed not t o be undone at the LF interface. However, our discussion of Polish OM Condition A effects seems to contradict the idea that optionally moved phrases do not reconstruct. [25] On the basis of the contrast in   (14) Polish OM seems to be just as problematic as German, Hindi or Japanese, where numerous authors have proposed that OM is

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[25] Grewendorf & Sabel (1996:13) pose a similar question and argue, following Belletti & Rizzi (1988) that Condition A can be satisfied at any point of the derivation. I w ill not go into the details of this proposal, however, it does account for examples like (i) where A-moved elements do not seem to induce Condition A effects:

(i) [*Each other's$_i$ pictures*]$_k$ *seem to the men$_i$* [$_{IP}$ t_k' *to be* t_k *the most beautiful*]

If this turns out to be correct, the argument (bas   ed on examples like 11) that P olish OM resembles A-bar movement, as far as reconstruction is concerned, w ould be undermined. However, Noam Chomsky (p.c.) has pointed out to me that examples like (i) seem to be similar in status to constructions like:

(ii) *Pictures of each other$_i$ hit the men$_i$ on their$_i$ heads*
(iii) *Pictures of each other$_i$ fell on their$_i$ heads^t*

Additionally, it seems that an interruption with focal stress improves such examples.

either A or A-bar movement or a mixture of both (see, for example, Hoji 1985, Mahajan 1990, Saito 1992, Webelhuth 1989, as well as Poole 1996).

Let us consider one possible structure of (14a) and (14b) depicted as (15a) and (15b) respectively, and see if they really involve no reconstruction.

(15)   a.*[$_{TP}$ *Ona* [$_T$ *pokazała$_j$*][$_{vP}$ [$_v$ *t$_j$'*][$_{VP}$[$_{DP}$*mu$_i$*][$_V$*t$_j$*][$_{DP}$ *zdjęcie Janka$_i$ z Paryża*]]]]
        she   showed   him$_i$ picture John-GEN from Paris
        "She showed him$_i$ John's$_i$ picture from Paris."

        b. [*Zdjęcie Janka$_i$ z Paryża*]$_k$ [$_{TP}$ *ona*[$_T$ *pokazała$_j$*][$_{vP}$ *t$_k$'* [$_v$ *t$_j$'*[$_{VP}$*t$_k$*[$_V$ *t$_j$*][$_{DP}$*mu$_i$*]]]]]
        picture John's from Paris   she   showed   him
        "John's$_i$ picture from Paris she showed him$_i$."

In Larson's (1988) account of double object constructions, we can see that (15a) is not the base structure from which (15b) is derived. [26] Thus, even if the direct object were reconstructed to its base position, (15b) would still remain grammatical. We can account for the ungrammaticality of (15a) by assuming that the indirect object *mu* "him" is optionally moved to Spec of *v*, where it checks Case and thus cannot reconstruct to its base position. This would entail that OM can lead to feature checking in L-related positions.[27] Another possible solution is that *mu* is merged structurally higher than the direct object which does not raise above *mu* and thus will always be c-commanded by it. Following Koizumi (1995), we can assume that both objects check case in separate SPEC-head configurations and that the indirect object checks case above the direct one. In such an account (15a) has no movement (case checked at LF), whereas (15b) has raising of the direct object through its case checking position to a position above the subject (the indirect object checks case at LF).[28]

Let us assume that OM always reconstructs to the last feature checking L-related position. Thus we can assume that it is a combination of two kinds of movement: feature checking movement to an L-related position and movement that reconstructs which can either be topicalisation like A-bar movement or non-

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[26] However, see Pesetsky (1995) for a discussion concerning the problems connected with double object constructions.

[27] I want to avoid statements that Condition C applies at S-structure, since following Chomsky (1995), I assume that there is no S-structure.

[28] Noam Chomsky (p.c.) has also pointed out to me that the contrast in (15) could be similar to the one between (i) and (ii):

   (i) *She showed his picture to him*.   (ii) *She showed him his picture*.
   The only difference would be that the Polish equivalent of (i) has an empty Preposition. Hence, it might turn out that the account involving OM to an L-related position in not correct.

feature-checking movement. Both approaches will allow us to account for the reconstruction effects of (11) and for the contrast in (14). The core assumption is that OM is a combination of two kinds of movement: A-movement which is feature checking and non-feature checking or A-bar move ment that involves reconstruction.

Thus in examples like (15b), Iwill argue that the DP object undergoes overt feature-checking movement in order to check Case features before it raises further (an thus reconstructs to that case checking position).[29] This is similar to object *wh*-movement in English, where, following Ura (1996), Iwill assume that functional heads can be parametrically specified to pe rmit violations of Procrastinate. Thus the object DP in (16) has to check Case in Spec$v$P before it can raise to SpecCP (see also Chomsky 1995).

(16)   *Whom$_i$ did you* [$_{vP}$ t_i' [$_{VP}$ *impress t$_i$*]]

Let me discuss a similar proposalwhere it is assumed that A-bar movement is always preceded by A-movement and that the former always reconstructs to the last L-related position.

6.1 *The Reconstructing Properties of CLLD Constructions and Polish OM*

Cecchetto (1997) proposes an analysis of clitic left dislocation phenomena (CLLD) in Romance where the topicalised DP undergoes a two-stage move-ment.[30] The first stage is A-movement and istriggered by the necessity to check ɸ-features. The next step is topicalisation which is A-bar movement. I will not discuss the details of Checchetto's proposals, the crucial assumption for me is that the XP undergoes a two-step movementand the intermediate landing site is Spec of F, where F^0 is the functional projection hosting the clitic and the ɸ-features which are checked by the DP and forceDP-clitic agreement.[31] This two stage movement analysis allows Cecchetto to predict thatthe topicalised DP will behave at LF as if it werein SpecFP, since reconstruction only applies to the A-

[29] Bošković (1997) has a similar proposal where he argues on the basis of superiority effects that Bulgarian objects pass through their Case checking position before raising any further.

[30] CLLD constructions contain a left-dislocated object and a clitic co-indexed with it (following Cecchetto 1997).

  (i)   *Beppe, l'ho   visto   ieri*.
         Beppe him-have-1SG   seen   yesterday
         "I have seen Beppe yesterday."

[31] Cecchetto propos es that after checking agreement in F^0 the clitic checks   Case via incorporation with the verb. H e also proposes that in cons tructions where there is no overt topicalised DP, there is *pro* in the object position which later rises to Spec of F at LF.

bar part of the clitic movement. Consider the following Italian examples (from Cecchetto 1997:8-9):

(17) a. *[*L'opera prima di* [*uno scrittore*]$_i$]$_k$ pro$_i$ *la scrive t$_k$ sempre (volentieri).*
           the first work   of   a   writer$_i$ he$_i$ it writes   always with pleasure

      b. [*L'opera prima di* [*uno scrittore*]$_i$]$_k$ t$_k$ *la scrive sempre lui$_i$ (volentieri).*
          the first work   of a writer   it writes always he   with pleasure
          "He$_i$ writes the first work of a writer$_i$ always with pleasure."

Example (17a) could involve reconstruction to the ar gument position t$_j$. However, example (17b) shows that the object DP may reconstruct to a position higher than that of the post-verbal subject, otherwise the structur e would be a violation of Condition C, like example (17a) with *pro* being co-indexed with "a writer". Cecchetto assumes that t he position of post-verbal subjects is always lower than that of pre-verbal subjects. I will not discuss the problem of Italian subject positions here (see Cardinaletti 1995 for a somewhat different approach). What is crucial for my analysis of Polish OM is that Italian topicalisation is treated as a c ombination of A and A-bar movements exhibiting A-bar recon-struction properties but only to the last A-position.

Let us propose that optionally DPs in Polish also undergo a two-st ep movement. If the second stage is non-feature check ing (violates Last Resort), then it is always optional and has to reconstruct (as far as violations of Procrastinate I will adopt an account in Ura 1996). Of course, it could be that the second stage of Polish OM is in fact feature checking movement, something like topicalisation. Regardless of the nature of this second stage of O M, following Chomsky (1995), I will assume that movement must proceed through all possible landing sites.[32] From the above discussion, we know that the reconstruction

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[32] The tacit as sumption being that there is no downward LF movement, hence an optionally moved object would not be able to check its Case features in Spec of *v* at LF. This is a reflex of the Minimal Link Condition which requires movement through all possible landing sites. This also does not preclude further recons truction resulting from the fact that the las t feature checking position is a non-L-related one. For example, a *wh*-phrase can be scrambled out of a embedded clause:

(i) *On myśli   że Jan   jak   chciał   by   Jurek zaśpiewał.*
     he thinks   that John how wanted SUBJ Jurek sing
     "He thinks how John wanted Jurek to sing."

The *wh*-word "how" *jak* can have scope in the most deeply embedded clause or it can have scope over the two embedded clauses, in which case the example is ambiguous (it can either have the answer: "John wanted very much for Jure k to sing" or "John wanted Jurek to sing loudly").

effects would remain the same. However, in section 8 I will try to provide some evidence that Polish OM is not triggered by feature checking.

Returning to the reconstruction effects of Polish OM, the examples in (18) seem to provide further evidence that scrambled elements do not behave as if they have undergone full reconstruction.

(18) a. *On_i kazał mu_j* PRO$_j$ *przeczytać* [*jego $_{i/*j}$ książkę*]]
      he told   him   read   his-ACC   book -ACC
      "He told him to read his$_{i/*j}$ book."

     b. [*Jego$_{i/?j}$ książkę*]$_k$ *on$_i$ kazał mu_j* PRO$_j$ *przeczytać* t_k
      his-ACC   book-ACC   he   told   him   read
      "He told him to read his book."

The above contrast shows that the object "his book" scrambled out of the complement infinitival phrase in (18b) cannot be reconstructed to its   base position in (18a). If it were, then the scrambled pronoun should be barred from being co-indexed with PRO, as is the case in (18a).[33] The question is what could be the possible intermediate feature checking site for the object DP. Examples involving the Genitive of negation constructions (see Franks 1995) allow us to establish where the Case of the embedded object is checked.

(19) a. *On nie   kazał   mu przeczytać   jego   książki.*
      he not   tell   him read   his-GEN   book-GEN
      "He did not tell him to read his book."

     b. *Jego książki   on   nie kazał   mu   przeczytać.*
      his-GEN book-GEN he   not tell   him   read
      "He did not tell him to read his book."

In (19) the matrix verb is negated and the complement of the infinitival verb in the subordinate clause changes Case from accusative to genitive. The genitive of negation is common in Polish and it is reasonable to assume that in (19b) and (18b) the scrambled DP passes through Spec of *v* of the matrix verb in order to check case. The assumption that Polish OM reconstructs to its last feature check-ing position thus correctly predicts that in example   s like (18b) full reconstruction of the DP to its base position is impossible.[34]

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[33] Richard Kayne (p.c.) has pointed out to me that according to this account (18b) should be grammatical with both readings of the pronoun *jego*. I have no account for this contrast.

[34] The binding judgements in (19) are the same as in (18). Howard Lasnik (p.c.) has pointed out to me that this indicates that LF Move/Attract F does not change binding relations, otherwise there should be no contrast between (18a) (object checks case at LF as in (19a) and (18b)).

6.2 *The landing site of Polish OM*

Koizumi (1995) argues that the fact that multiple *wh*-constructions do not violate MLC can be accounted for if we assume that multiple *wh*-words are in multiple Specs of C^0. Polish has multiple *wh*-movement, as well as multiple instances of OM and topicalisation.[35]

(20) a. *JANKA   MARYSIA   zaprosiła.*   b. *Janka Marysia zaprosiła.*
          John-EMPH Mary-EMPH invited   John   Mary   invited
          " Mary invited John."   "Mary invited John."

(21) a. *Kto kogo zabił?*   b. *Komu   co Jan chciał by kto dał?*
          who whom killed   to-whom what John wanted SUBJ who give
          "Who killed whom?"   "John wanted who to give what to whom?"

Example (20a) shows that topicalisation can apply recursively and so can OM (20b). Example (21) shows that Polish has multiple *wh*-movement. In (21b) the *wh*-phrases raised out of the subordinate clause should pass through the embedded SpecCP (in order not to violate MLC which requires that movement proceeds through every possible landing site, see Chomsky 1995). Thus we would have to assume that Polish has multiple SpecCP positions.

However, as discussed in previous sections it is not clear if the examples in (21) actually involve *wh*-movement to CP or if they are just instances of OM of wh-phrases, or a combination of *wh*-movement and OM. However, regardless of the exact nature of the structures in (21), we can assume that Polish functional heads license multiple Spec positions, thus allowing OM to move elements to functional heads like Tense, *v*, Comp and Focus. Note that the way I defined L-related and non-L-related positions allows me to have A-bar movement to the outer Spec of T to check some topicalisation feature, for example. This is because L-relatedness is a function of the features that are checked and not of the functional head itself.

Before I present arguments that OM is in fact non-feature checking movement, let me discuss an example where elements which have undergone OM are allowed to check EPP features and thus behave like A-movement.

7. ***Optional movement and feature checking: The nature of the EPP***

Willim (1989) notes the interesting contrast below: (22a) is ungrammatical with an overt or a null subject, (22b) is fully acceptable with a *pro* subject alone.

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[35] Richards (1997) assumes that Polish multiple *wh*-movement patterns like Serbo-Croatian and hence is in fact an instance of multiple adjunction to IP. See also Rudin (1988).

(22)   a.*On_{i}/pro_{i} uznał książkę, którą Jan_{i} przeczytał wczoraj za najlepszą.
          he/pro regarded book   which John   read   yesterday as best
          "He_{i} regarded the book that $John_{i}$ read yesterday as the best."

       b. *Książkę, którą Jan_{i} przeczytał   wczoraj, *on_{i}/pro_{i} uznał   za najlepszą.*
          book   which John read   yesterday he/pro regarded as best
          "The book that $John_{i}$ read yesterday, he_{i} regarded as the best."

It seems that in (22b) the scrambled DP [*book which John read*] need not reconstruct below the subject position occupied by *pro*.[36] A natural assumption would be to consider the mov   ement in (22b) as feature checking, like Sauerland's (1996) proposals concerning German scrambling which he considers to be a form of topicalisation. However, if we assume that (22b) involves topicalisation we would have to account for why OM in (22b) is disallowed.

Example (22b) shows that the scrambled DP reconstructs above *pro* but below the overt pronominal subjects. I will argue that the ungrammaticality of (22b) when it involves an overt pronominal results from the fact that the EPP in T attracts primarily phonologically overt pronominals. Consequently, the EPP can be satisfied by optional movement of a phonologically overt DP to SpecTP instead of having *pro* there. I assume that this can be formalised in terms of Attract (as defined in Chomsky 1995), where Polish T can attract any element within VP which can check the features in T. As far as   EPP is concerned, an overt pronominal is preferred over a null one. However, an overt subject DP is preferred over an overt non-subject DP   (probably because the subject can automatically check ϕ and case features) and hence the contrast in judgements. This assumption predicts that the EPP is unlike any other for   mal/semantic feature, since it seems to be also sensitive to PF properties. Note that the raised object cannot check case or agreement features of T since it has accusative case and does not agree with the verb. This seems to confirm the proposals in Ura (1996) where Subject properties are a function of checking ϕ features in T. This correctly predicts that an optionally moved DP cannot control PRO in (23b):

(23)   a. *Ty_{i} chciałeś* [PRO$_{i}$ *zaprosić   Janka*]
          you   wanted   PRO   invite   John-ACC

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[36] Željko Bošković (p.c.) has pointed out to me that the contrast in (22) might be a reflex of the Avoid Pronoun Principle (APP). However, the case here would involve not a general preference for *pro* over overt pronouns but wo uld only exclude overt *co-indexed* pronouns. Moreover, APP violations do not give rise to strong ungrammaticality judgements.

b.*[*Janka$_i$*]$_k$ *chciałeś*   [PRO$_i$ *zaprosić* t$_k$]
   John-ACC   wanted   PRO   invite
   "You wanted to invite John ."

Example (23b) also shows that the EPP is separate from case and agreement features, provided one assumes that the raised DP *Janka* is in SpecTP. The moved object does not agree with the verb and cannot control PRO which is a typical subject property. Neve rtheless, we can assume that its presence in SpecTP satisfies the EPP. Consequently, the preference for an overt subject DP over an object DP can be captured by the fact that subject raising checks more T features than object raising, since the latter can only satisfy the EPP. However, it seems that the EPP cannot be satisfied by phonologically null elements if there is a possibility of having a phonologically overt DP, hence the object DP in (22b) is in SpecTP and satisfies the EPP and is thus blocked from reconstruction. Note, however, that in examples like (23b) PRO in the subordinate clause satisfies the EPP. Furthermore, Collins (1997) proposes an analysis of locative inversion in English as in (24) where the raised PP satisfies the EPP:

(24) *Down the hill rolled John.*

Consequently, I will assume that the optionally moved elements in Polish (like the DP object in (22b)) can satisfy EPP or check features, provided they are in the correct configuration. This is however different from proposing that OM is driven by a separate feature (see Grewendorf & Sabel 1996, Sauerland 1996).

8. *The scrambling feature in Polish*

Up until now I have allowed the possibility that Polish OM involves non-feature driven movement without providing any arguments for such an assumption. In this section I will argue that Polish OM does not exhibit the typical properties of feature driven movements argued by Sauerland (1996) to indicate that German and Japanese scrambling is feature driven. His proposals are centred around the slightly modified proposals made in Pesetsky (1982), where a distinction is proposed between Nested and Crossing paths:[37]

(25) a. [*Jaki*   *temat*]$_1$ *ty*   *chcesz* [*komu*]$_2$ PRO *przedstawić* t$_1$ t$_2$?
      what   subject you   want   who   present
      "What subject do you want to present to who ?"

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[37]An anonymous reviewer has pointed out that (25a) should be an MLC violation. I have no account for its grammaticality.

b. [*Komu*]$_2$ *ty*   *chcesz* [*jaki*   *temat*]$_1$ PRO *przedstawić* *t$_1$* *t$_2$?*
      who   you   want   what   subject   present
      "To whom do you want to present what subject?"

The Polish structural counterparts of the English examples do not exhibit the same contrast. Polish *wh*-movement seems to allow both Crossing (25b) and Nested (25a) paths.[38]

Sauerland proposes a classification of syntactic movements into surfing and diving.[39] A surfing path is created when first a superphrase together with a subphrase moves and later that subphrase is moved above the superphrase.[40]

(26) [*Którego studenta*]$_1$ *Jola prosiła* [*który obrazek t$_1$*]$_2$ *by*   *powiesić t$_2$?*
      which   student   Jola asked   which picture   SUBJ put up
      "Which picture of which student did Jola ask to put up?"

The above kind of movement seems grammatical in Polish. Div ing Paths involve the movement of the subphrase o   ut of the superphrase and the subsequent raising of the superphrase (together with the trace of the subphrase) above the extracted subphrase (example 27 is for some speakers ungrammatical-I have no account for this variation).

(27) [*Który obrazek t$_1$*]$_2$ *Jola prosiła* [*którego studenta*]$_1$ *by*   *powiesić t$_2$?*
      which picture   Jola   asked   which   student   SUBJ put up
      "Which picture did Jola ask which student to put up?"

Sauerland argues that crossing and diving paths are ill-   formed if both movements are of the same type, the exception being crossing scrambling. Let us examine the possible combinations of both movements in Polish:[41]

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[38] The original examples taken by Sauerland from Pesetsky (1982) were:
  (i) *What subject$_1$ do you know who$_2$* PRO *to talk to t$_2$ about t$_1$*
  (ii) *Who$_1$ do you know what subject$_2$* PRO *to talk to t$_1$ about t$_2$*
  However, Polish has to have the prepositions pied-piped in *wh*-movement, hence the slight difference in the examples . Nested and Cros sing paths basically arise if one of the moved phrases dominates the other moved phrase.

[39] These roughly correspond to Nested and Crossing paths, but see Sauerland (1996:4,n.2).

[40] All the examples are English or German structural translations from Sauerland (1996).

[41] Example (29a), proposed to me by Richard Kayne (p.c.), is a modification of the original example in Sauerland (1996) listed in (31b), since in Polish it is possible to have optional X^0 movement of the infinitival verb.

(28) a. [Komu]$_1$ [pytanie]$_2$ wydawało   się t_1 być t_2 zbyt łatwe?
      whom   question   seem   REFL   be   too   easy
      "To whom did the question seem too easy?"

  b. [Jak bardzo kochana t_1 przez Jana]$_2$ [Maria]$_1$ wydawała   się   być t_2?
      how much loved   by   John Mary   seemed   REFL be
      "How dearly loved by John did Mary seem to be?"

(29) a. [Komu]$_2$ [łazienkę]$_1$ Jola t_1 [wyczyścić t_i] obiecała?
      who   bathroom Jola   clean   promised
      "Who did Jola promise to clean the bathroom?"

  b. [t_1 Za pomocą szczoty wyczyścić]$_2$ Jan [łazienkę]$_1$ nieudolnie próbował t_2.
      with help brush   clean   J. bathroom unsuccessfully tried
      "John tried unsuccessfully to clean the bathroom with a brush."

(30) a. Że [Janowi]$_2$ wczoraj [Martę]$_1$ Adam próbował obiecać zabawiać t_1.
      that John   yesterday Martha Adam tried   promise entertain
      "That Adam tried yesterday to promise John to entertain Martha."

  b. Janek [podarowa ć książkę t_1]$_2$ nieudolnie   [Marysi]$_1$ próbował t_1.
      John   give   book   unsuccessfully Mary   tried
      "John tried unsuccessfully to give a book to Mary."

Polish allows combinations of NP/Operator crossing (28a) and diving (28b)
movement, it also allows a combination of scrambling/operator crossing (29a)
and diving (29b) movements and, most interestingly, it allows a combination of
scrambling/scrambling crossing (30a) and divin g (30b) movements.[42] Hence,
Polish differs from German and Japanese in that neither German nor Japanese
allow scrambling/scrambling diving movement (see Sauerland 1996:8).

(31) a.*[Hanako-ga t_1 yonda to]$_2$ [sono-hon-o]$_1$ Taroo-ga t_2 itta.
      Hanako-NOM   read   that   that book-ACC Taroo-NOM   said
      "Taroo said that Hanako read that book."

  b.*Danny hat [t_1 zu putzen]$_2$ vergeblich [das Bad]$_1$ t_2 versuscht.
      Danny has   to clean   unsuccessfully the bathroom   tried
      "Danny has tried unsuccessfully to clean the bathroom."

Sauerland (1996) accounts for the Japanese and German facts by proposing,
following among others Koizumi (1995) and Müller (1996), that PMG can be
accounted for if we assume that movement is feature driven and is an instance
of Attract. He (p.8) adopts the following definitions of Attract and Cyclicity:

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[42]For some speakers of Polish (30a) is not possible without an adverbial at the end. I have no
account for this variation.

i. *Shortest Attract*: X attracts Y, if Y is the closest phrase that can satisfy a requirement of X, where Y_1 is closer than Y_2 to an X that c-commands Y_1 and Y_2 if Y_1 c-commands or dominates Y_2.

ii. *Cyclicity*: If X is structurally lower than Y, the requirements of X must be satisfied prior to those of Y.

In the case of diving paths the subphrase is moved out of a superphrase (32a) which consequently raises above that subphrase.

(32) a. $[_{XP} [_{XP} [_X X] [_{ZP} [_Z Z][_{KP} [_K K]]]]]$
        b. $[_{XP} [_{XP} [_X X] [_{WP} [_{ZP} [_Z Z]] [_{WP} [_W W]] [_{KP} [_K K]]]]$

Let us assume that X attracts a scrambling feature [S]. Let us further assume that both KP and ZP can check this feature, consequently KP should raise first because of cyclicity, but ZP should raise first because of shortest Attract. This is why diving movement forced by the same feature is ungrammatical. Crossing movement triggered by the same feature is also ungrammatical for the same reasons, the difference being that in the latter case one phrase c-commands the other (32b). The ungrammaticality of scrambling/scrambling diving movement is hence assumed to indicate that scrambling is feature driven. Consequently, the grammaticality of (30b) compared to its Japanese and German counterparts seems to argue in favour of assuming that Polish OM is not feature driven.

The grammaticality of crossing paths in Polish   *wh*-movement can be accounted for if we assume that C^0 in Polish licenses multiple specifiers. The embedded C^0 then provides an escape hatch by attracting one wh-phrase to its first specifier and the other *wh*-phrase to its second specifier. Note that once the initial *wh*-phrase has raised to $Spec_1 CP$, it is outside the checking domain of the other *wh*-phrase and hence, provided C^0 has multiple [+wh] to check, the other *wh*-phrase can raise to the higher $Spec_2 CP$.[43]

9. *Semantic effects of Polish OM*

Polish OM shows some interesting scope properties of multiply-quantified sentences. All the examples below mean "Each boy kissed a few girls".

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[43] See Sauerland's (1996) discussion on grammaticality.

(33) a. *Każdy   chłopiec   pocałował   kilka   dziewczyn.* (SVO)
        each   boy   kissed   several girls

    b. *Kilka   dziewczyn   pocałował   każdy   chłopiec.* (OVS)
        several   girls   kissed   each   boy

    c. *Kilka   dziewczyn każdy   chłopiec   pocałował.* (OSV)
        several girls   each   boy   kissed

    d. *Pocałował   każdy   chłopiec   kilka   dziewczyn.* (VSO)
        kissed   each   boy   several girls

    e. *Pocałował   kilka   dziewczyn   każdy   chłopiec.* (VOS)
        kissed   several girls   each   boy

    f. *Każdy   chłopiec   kilka dziewczyn pocałował.* (SOV)
        each   boy   several girls   kissed

(33a-f) can have a reading wher e the subject or the object DP has a wide scope, with the exception of (33e). (34) gives the possibl e corresponding LFs:

(34) a. [Every boy]$_\alpha$ [few girls]$_\beta$, α kissed β
      b. [Few girls]$_\beta$ [every boy]$_\alpha$, α kissed β

Example (33e) seems to prefer strongly the reading in (34a). I do notreally have any account of this, however,it could be that (33e) involves VP raising and not OM of the object DP and hence the difference in judgement.

If we assume that the scope relations of multiply quantified structures are established at LF, then we must assume that the inability of OM to disambiguate the above structures implies that the effects of OM at LF are undone. This in itself does not imply that there is no 'scrambling' feature. However, together with the fact that Polish allows multiple instances of OM, whe ther diving or surfing, it seems to indicate that the lack of LF effects in Polish OM is a result of the fact that there is no semantic or formal feature which triggers optional movement.[44]

The above discussion indicates that Polish OM is not feature driven in the sense German and Japanese OM is. Moreover, it does not induce any scope effects. This seems to exclude a semantic feature as the trigger for Polish OM.

10. *A Tentative local economy account and conclusions*

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[44] An anonymous reviewer has pointed out that t he examples in (33) have different preferred readings depending on discourse and topic/focus stress patterns. However, what is crucial for my argument is that movement alone does not disambiguate these structures.

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The account presented here assumes that Polish OM is not feature checking in the sense of Chomsky (1995). This faces the problem why optional movement exists in Polish. It does not seem to be feat ure checking, hence it violates Last Resort and should not take place.

A possible account would be to assume, following Ura (1996), that funct-ional heads are parametrically specified as to how many violations of Procrast-inate they allow during feature checking movement. In Polish, this notion would have to be taken one step further: functional heads would also have to be able to permit economy violations, ev en if the movement is not feature checking. Furthermore, Polish functional heads can license Spec positions, even if these are not feature-checking, thus allowing also optional Last Resort violations.

Let me assume that the ability to violate economy is an inherent property of functional heads which either have this option in a given language or they don't. This property is in fact a manifestation of the feature properties of that head. Let me assume that functional heads have a feature ξ that is responsible for licensing Specs positions. ξ is a -*Interpretable* formal feature and it can appear in different configurations with other formal/semantic features. In languages where there are no violations of Procrastinate, ξ is bundled only with strong features. In cases where heads are parametrised to allow optional violations of Procrastinate, ξ can be bundled with weak features. A third possibility is that ξ is not bundled with any feature. This I will argue is the case of Polish OM. Crucially, I will argue that ξ is not a feature which can be checked. Its existence is manifested solely by the projection of Spec positions. Hence, the difference between Polish and German and Japanese OM. Note that in this system head movement which is feature checking is a n instance of movement to a head which has to have a feature checked which is not bundled with ξ. The account presented h ere provides an argument for a model where non- feature checking movement is possible within the minimalist program. The analysis of Polish OM also shows that there is no need to postulate the existence of broadly L-related positions. It also predicts that non-feature checking movement should obligatorily reconstruct but only to the last feature checking position. I crucially assume that optionally moved elements have t o check feat ures in all possible feature checking configurations that they pass through. This supports the argument that movement is driven locally and that cyclicity can be derived from a local account of Last Resort (see Collins 1997).

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