Peeling and Anti-freezing

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Synopsis

Peeling derivations, an essential property of Nanosyntax (e.g. Starke (2009), Caha (2009), Baunaz et al. (in press)), involve stranding the higher layers of a constituent under upward movement. For example, a structure [C [B [A]]] base-generated low in the clause can undergo C stranding and then B stranding to the effect that its subconstituent A ends up higher in the clause:

(1) **Peeling:**   A . . . [B [A]] . . . [C [B [A]]]

What constitutes a challenge to the Peeling Theory of Movement is the Freezing Condition (Wexler & Culicover 1980, Corver, in press, a.o.):

(2) **Freezing Condition (strong version)**
     A moved constituent becomes an island for extraction.

Anti-freezing derivations in Polish

Against (2), there are at least 4 classes of constructions in Polish which are derived by extractions from fronted constituents:

- extractions from subjects of *żeby*-clauses
- extractions from topicalized NPs
- left branch extractions of wh-words from fronted WhPs
- the derivation of OVS sentences (proceeds according to the scenario in (1))

Peeling

There are two existing classes of evidence in favor of peeling: (i) conversion of bigger to smaller structures under movement and (ii) spell-out of peels, i.e. lexicalization of layers of structure stranded by movement as (parts of) morphemes.

Bigger (containing) to smaller (contained) case conversion

Spray-load alternations in Polish include a change in the case-marking of the NP from a bigger to smaller case according to the case fseq from Caha (2009) in (3):

(3)

(4) INST>GEN>ACC>NOM: the Figure NP *trawa* 'grass' changes its case under upward movement:

a. Jan   załadował   wóz   traw-**ą**   **INST**
    Jan.NOM loaded   cart.ACC grass-INST
    'Jan loaded the cart with grass.'

b. załadowa-nie traw-**y**   na wóz   **GEN**
    load-ING   grass-GEN   on cart.ACC
    'the loading of the grass on the cart'

c. Jan   załadował   traw-**ę**   na wóz   **ACC**
    Jan.NOM loaded   grass-ACC   on cart.ACC
    'Jan loaded grass on the cart.'

d. Traw-**a**   została   załadowana   na wóz   **NOM**
    grass-NOM   was   loaded   on cart.ACC
    'The grass was loaded on the cart.'

Spell-out of peels

Case layers which are stranded by extraction are spelled out as (parts of) other morphemes in the clausal fseq. For instance, Taraldsen Medová & Wiland (in press) argue that accusative case peels spell out as part of the **L**-morpheme in Polish and Czech, which explains why only unaccusative verbs can form adjectival **L**-passives, as in:

(5) a. *unaccusative*   b. *unergative*   c. *transitive*
     zmar-**ł**-y   król   *ziew-**ł**-e   przeciągnięcie   *kop-**ł**-a   piłka
     dead-L-AGR king   yawn-L-AGR stretch   kick-L-AGR ball
     'dead king'   'a yawned stretch'   'a kicked ball'

Freezing problem for peeling?

Despite its explanatory potential, the Peeling Theory of Movement violates the ban on movement out of moved constituents, i.e. the Freezing Condition in (2). Exceptions to freezing have been reported to be either apparent (cf. Corver, in press) or have been argued in Bošković (to appear) to form a class of their own. Contrary to this view, there exist at least 4 constructions in Polish which are derived by extractions from fronted constituents: (i) **extractions from subjects of *żeby*-clauses** and (ii) **from Topicalized NPs**, (iii) **LBE from fronted wh-phrases**, and (iv) **OVS sentences**. Moreover, OVS sentences in Polish are derived exactly according to the peeling scenario in (1).

I. Extractions from subjects

A class of examples often put forward in favor of freezing is based on the idea that subject raising from the Θ to the surface ("EPP") position induces the Subject Island Condition, the effect observed also with extractions from the subjects of passives in (6b):

(6) a. ?*I wonder [CP who₂ [DP friends of t₂]₁ [vP t₁ hired Mary]]
     b. *Which cars₂ were [[the tires of t₂] punctured t₁ by the road's rough surface]?

In contrast, extractions from raised NP-subjects of tensed subjunctive clauses headed by the complementizer *że-by* 'that-mood' in Polish are well-formed:

(7) a. [NP Zawodnicy [WhP której drużyny]]   *pro* chciałeś   [CP żeby tNP wygrali mecz]?
        players-NOM   which team-GEN   wanted.2SG COMP   won.3PL game-ACC

     b. [WhP Której drużyny]   *pro* chciałeś   [CP żeby [NP zawodnicy tWhP] wygrali mecz]?
         which team-GEN   wanted.2SG COMP   players-NOM   won.3PL game-ACC
         'Players of which team did you want to win the game?'

II. Extractions from fronted NPs

Another argument often made in favor of freezing are blocked extractions from topicalized XPs in English (Lasnik & Saito 1992):

(8) a. I think [that [DP articles about vowel harmony]₁ you should read t₁ very carefully]
     b. ?*Vowel harmony₂, I think [that [DP articles about t₂]₁ you should read t₁ very carefully]

Yet, extractions of wh-possessors from topicalized NP objects are well-formed in Polish:

(9) a. Myślę, [CP że [NP zeznań   [tamtych świadków]₁   *pro* nie powinniśmy ignorować t₁]
         think.1SG COMP testimonies those   witnesses.GEN   not should.2PL ignore
         'I think that we should not ignore the testimonies of those witnessess.'

     b. Czyich₂ myślisz   [CP (*że) [NP zeznań t₂] *pro* nie   powinniśmy ignorować t₁]?
         whose think.2SG   COMP   testimonies   not   should.2PL ignore
         'Whose testimonies do you think we shouldn't ignore?'

III. LBE from fronted wh-phrases

In question formation, Polish allows for both pied-piping and left branch extraction of wh-words, including LBE from successive-cyclically fronted wh-phrases, as in (10b):

(10) a. Jaki₂ Paweł [WhP t₂ samochód]₁ kupił   swojej żonie   t₁ ?
         what Paweł.NOM   car.ACC   bought his   wife.DAT
         'What car did Paweł buy his wife?'

     b. Jaki₂ Paweł [WhP t₂ samochód]₁ chciał   [PRO kupić swojej żonie t₁]?
         what Paweł.NOM   car.ACC   wanted.3SG buy.INF his   wife.DAT
         'What car did Paweł want to buy his wife?'

Wiland (2010): (10b) is derived by successive cyclic WhP-fronting followed by wh-extraction, not by remnant WhP scrambling, since scrambling in Polish is strictly clause bound in finite clauses:

(11) Maria (*pieniądze) powiedziała [CP że (✓pieniądze) Paweł (✓pieniądze)
     Mary.NOM money.ACC said   COMP money.ACC   Paweł.NOM money
     oddał   (✓pieniądze) bratu   tNP]
     returned money.ACC   brother.DAT
     'Mary said that Paweł had returned his money to his brother.'

IV. OVS sentences

Another example of anti-freezing derivations in Polish are non-canonical OVS constructions (the unmarked word order in Polish is SVO). OVS sentences are derived by fronting of a large constituent above the surface position of the nominative subject plus a subsequent object-fronting to the left periphery (TopP or FocP, depending on the variant of the OVS construction). In other words, OVS constructions are derived in the way outlined in (1).

(12) **Derivation of OVS in Polish:**   [TopP/FocP O . . . [V [O]] . . . [S [V [O]]]]

Arguments in favor of the anti-freezing derivation of OVS in (12) given in Wiland (2016) include:

VP-external elements below O but above S

(13) Marii   **to by** **nie** oblał [nauczyciel od fizyki]   **O** PRT MOOD NEG **VS**
     Mary.GEN PRT MOOD NOT fail   teacher.NOM from physics
     'The physics teacher would not fail Mary.'

(14) Marii   **to zawsze** podobał **się** Jan.   **O** PRT Adv **V** CL **S**
     Mary.DAT PRT always   liked   CL   Jan.NOM
     'Mary was always attracted to Jan.'

Binding from sentence-final S

(15) a. [Nauczyciel, od fizyki] oblał wbrew swojej, woli Marię.   **SVO**
        teacher.NOM from physics failed against self   will Mary.ACC

     b. Marię   oblał wbrew swojej, woli [nauczyciel, od fizyki]   **OVS**
        Mary.ACC failed against self   will teacher.NOM from physics
        'The physics teacher, failed Mary against his, own will.'

Double objects

(16) Jan   wysłał Marii   list   miłosny.   **SVO**ind**O**dir
     Jan.NOM sent   Mary.DAT letter.ACC love
     'Jan sent Mary a love letter.'

(17) a. MARII   (to) list   miłosny wysłał Jan.   **O**ind PRT **O**dir**SV**
        Mary.DAT PRT letter.ACC love   sent   Jan.NOM

     b. LIST   MIŁOSNY (to) Marii   wysłał Jan.   **O**dir PRT **O**ind**SV**
        letter.ACC love   PRT Mary.DAT sent   Jan.NOM
        'Jan sent Mary a love letter.'

Conclusion

Extractions from subjects and topicalized NPs, left branch extraction from successive cyclically fronted WhPs, and the derivation of OVS sentences in Polish constitute new evidence against the universality of the ban on movement out of moved constituents. While it remains to be discovered why certain constituents allow for extraction after they are moved while others do not, moved constituents do not uniformly become extraction islands. This makes peeling derivations in principle legal.

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