

Weak pronouns, object shift, and multiple Spell-Out: Evidence for phases at the PF-interface

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What are the constraints that regulate the distribution of weak pronominal elements across the Germanic languages, and what do these constraints tell us about the nature of the syntax-phonology interface?

0. AIM & OUTLINE

This paper aims to show that the *phase* of Chomsky 1998 (et seq.) constitutes a phonological as well as a syntactic unit, a hypothesis that can be stated as in (1).

- (1) *Maximal φ Condition*
 A phonological phrase φ (... ω , etc.) can be no larger than a phase.

This condition, when applied to the domain of pronominal Object Shift (OS) in Germanic, allows a full and simple account of the distribution of weak-pronominal objects, one which lends further, syntax-external support to Chomsky's identification of the phase with the categories C and v^* .

1. THE DATA: OBJECT DISPLACEMENT IN NORTH AND WEST GERMANIC

- (2) Core data (based on Thráinsson 2001)
- a. *Der Student las (es/das **Buch**) nicht (das **Buch**/*es)* [German]
 b. *Nemandinn las (**hana**/**bókina**) ekki (**bókina**/***hana**)* [Icelandic]
 c. *Studenten læste (**den**/***bogen**) ikke (**bogen**/***den**)* [Danish]
 The-student read (it/the-book) not (the-book/it)
 "The student didn't read it/the book"
- d. *Der Student hat (es/das **Buch**) nicht (das **Buch**/*es) gelesen* [Ger]
 e. *Nemandinn hefur (***hana**/***bókina**) ekki lesið (**bókina**/**hana**)* [Icel]
 f. *Studenten har (***den**/***bogen**) ikke læst (**bogen**/**den**)* [Dan]
 The-student has (it/the-book) not read (the-book/it)
 "The student hasn't read it/the book"

(3)

	Pronouns (weak)	Full DPs	Nonfinite main verb
Mainland Scandinavian	<i>Obligatory</i>	<i>No</i>	<i>No</i> (HG)
Icelandic	<i>Obligatory</i>	<i>Optional</i>	<i>No</i> (HG)
German/Dutch ('scrambling')	<i>Obligatory</i>	<i>Optional</i>	<i>Yes</i>

- **Question:** Why is pronominal OS obligatory in those languages in which it occurs whereas full-DP OS is merely optional?
- In other words, whatever our theory of (full-DP) OS, what are the extra conditions on the placement of weak pronouns?

Previous accounts in the minimalist literature include:

- *Holmberg 1999*: Movement of an inherently [-Foc(us)] element out of the focus domain (= VP) to a position where it can be governed by a “phonologically visible” [+Foc] element (“[-Foc] must be governed by [+Foc]”, p.25). Icelandic full DPs are only optionally [-Foc]
- *Chomsky 1999*: Movement to the EPP position of v^*P to escape the interpretive complex *Int'* (=new/focussed/nonspecific) semantics assigned to the “phonological border” of v^*P in [+OS] languages (applies to pronouns and full DPs alike)
- *Grohmann 2000*: Movement at LF of a ϕ -deficient element (“covert, LF-clitic”) to a higher functional head in order to supply the missing (“deficient”, “underspecified”) features

Possible problems:

- None of these analyses is able to account for *all* of the facts in (2)/(3): Holmberg 1999 and Chomsky 1999 work well for VO but less well for OV languages, whilst Grohmann 2000 handles only the OV Germanic data
 - All of these accounts approach the issue from the perspective of the **LF** properties of weak pronominals (pseudosemantic [Foc] features, LF-interpretive complexes, LF-cliticization, etc.), neglecting perhaps the most salient property of these elements – their *prosodic* deficiency (inability to bear stress, etc.), which remains mysterious/incidental on these approaches
 - All of these accounts arguably make assumptions and stipulations that fall short of the level of “principled explanation” now strived for under the Strong Minimalist Thesis as conceived in Chomsky 2001, 2004. These include [Foc] features, government, OS/Int parameters, Greed-driven movement, covert cycles, none of which seem *necessarily* imposed by the interfaces or reducible to general principles of computational efficiency, etc.
- **Proposal:** A much simpler, arguably more natural account of the facts in (2)/(3) is located at the interface with PF (not LF). This will allow us (a) to take seriously the prosodic deficiency of weak pronouns, and (b) to appeal to just a single theoretical (“conceptually necessary”) device: the phase.

2. PHASE INTEGRITY

According to the multiple spell-out model of Chomsky 1999, the syntactic derivation is composed of a number of smaller units (phases, identified with the categories C and v) which represent points at which the syntactic object is accessed and evaluated by the interface components, thereby rendering the (domain of the) previous phase inaccessible to further operations in the syntax in accordance with the Phase Impenetrability Condition (PIC):

(4) Phase Impenetrability Condition (Chomsky 1998, 1999, 2001)

$[_{ZP} Z \dots [_{HP} \alpha [_H YP]]]$

- Z and H head strong phases
- HP phase is spelt out (interpreted/evaluated) when Z (next strong phase) is merged, rendering the *domain* of H (= YP) inaccessible to further operations

- (8) a. *The point is not to scare the public*
 b. [[The point is not] [to scare the public]]
 c. [[The point is] [not to scare the public]]
 d. *The point isn't to scare the public*
 e. <is not> → <isn't> / (_ _)_ω

Assuming the contracted form *n't* to be a clitic that forms a single phonological word (ω) with its host, it follows from *Top-Down* (6) that the cliticization schematized in (8e) is only possible if *is* and *not* are in the same phonological phrase (φ). This suggests that (6) is at least a necessary condition on *not*-contraction at PF.

- (9) *[[The point [_T is [_{VP} *v*_{def} ... V [_{CP} C [[n't] T ...]]]]]]
 (// ...)_φ
 ↑ φ-boundary forced at merge of matrix *v*_{def}¹

2.2.2 ECM in English versus French (cf. Kayne 1981)

Neeleman & Weerman (1999) propose a PF analysis of ECM constructions such that the matrix verb and ECM subject have to appear in the same φ (for reasons of the ECP and case-licensing at PF, not relevant here).

- (10) a. *John believes Bill to be stupid*
 b. **Jean croit Robert être stupide*
 John believes Robert to-be stupid
 c. *Le garçon que je croyais être stupide*
 The boy that I believed to-be stupid

- (11) a. English (no V-to-T; ECM verb selects T_{def} complement)
 John believes Bill to be stupid
 [_{VP} ... V ... V [_{TP} [Subj] T_{def} ...]]
 ()_φ

- b. French (V-to-T; verb selects only CP complement)
 *Jean croit Robert être stupide
 [_{VP} ... V ... V [_{CP} C [[Subj] T ...]]
 (//)_φ

↑ φ-boundary forced at merge of matrix *v*

- c. Le garçon que je croyais t_i être stupide
 [Subj]_i ... [_{VP} ... V [_{CP} [t_i] C [[t_i] T ...]]
 ()_φ
 (Embedded CP-edge accessible until matrix C merged)

2.2.3 Null complementizer distribution

Bošković & Lasnik (2003) [B&L], following Pesetsky 1992, propose that the null complementizer in English is a PF-affix requiring an adjacent (+V) host. However, to

¹ See Legate 2001 for arguments that defective *v* is a (strong) phase.

account for the data in (12), B&L still have to make additional stipulations, such as category-sensitivity at PF (the host must be a [+V] category, except copulas):

- (12) a. *It seemed at that time [_{CP} Ø [_{TP} David had left]]
 b. *What the students believe is [_{CP} Ø [_{TP} they will pass the exam]]
 c. *Mary believed Peter finished school and Bill [_{CP} Ø [_{TP} Peter got a job]]
 (Bošković & Lasnik 2003: 529 (3a,b,d))

These extra stipulations are unnecessary given the Phase Integrity Condition in (7). PF-affixation, as in (13), should be subject to (7) since V (host) and C (null affix) must be in the same ϕ in order to form a single phonological word (by (6)).

- (13) $\langle V C \rangle \rightarrow \langle [V-C] \rangle / (_ _)_{\omega}$

Adjacency alone will therefore be insufficient whenever a phase boundary intervenes between null C (which we can take to be an enclitic element) and left-adjacent host ([+V] or otherwise). This allows us to explain the ungrammaticality of (12) without the need for syntactic subcategorization at PF or stipulations about copulas. Copula *be* fails as host in (12b) since it occupies the matrix T position: PIC inserts a ϕ -boundary between matrix phase-head v and its complement VP, thus separating matrix T from the null C head (the same applies for *Bill* in matrix spec-TP and the null C head in (12c)). (12a) is then ruled out if adjuncts are separate phases/spell-out domains (cf. Chomsky 2001, Uriagereka 1999).

3. WEAK PRONOUNS AS PF-CLITICS

The data in (2) point to the following rough generalization:

- (14) A weak pronoun is spelt out *in the same phase* (CP/ v P) as the lexical verb (cf. Svenonius 2000)

Recall the salient characteristic of weak pronouns: their prosodic deficiency.

- (15) A weak pronoun is not an autonomous prosodic word (ω), hence its inability to bear stress²

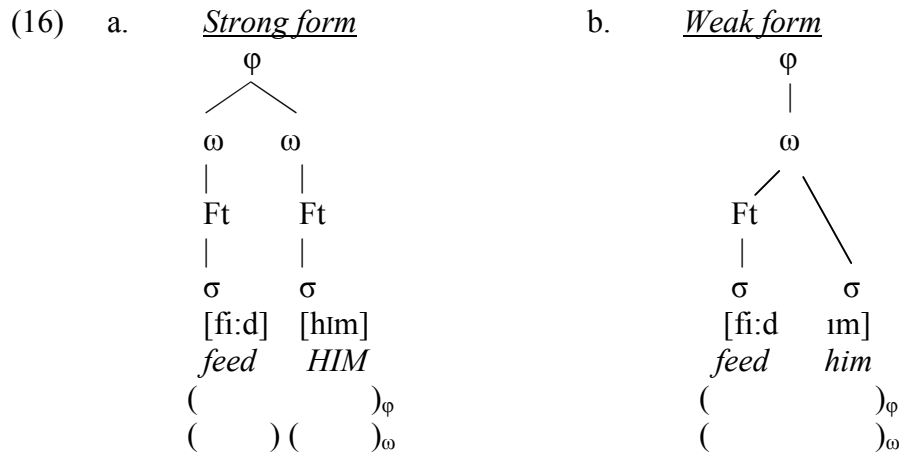
Thus weak pronouns differ from strong pronouns³ in being prosodically deficient elements that require hosting by a preceding word at PF. That is, they are PF-clitics/affixes (cf. the null complementizers of section 2.2.3).

Thus a strong pronoun may have the prosodic structure in (16a) – it is an autonomous, stress-bearing unit – whilst a weak pronoun must be realigned as part of the prosodic structure of its host ω (16b).⁴

² That is, it is smaller than a foot. Since a stressed syllable is the head of a foot (the minimal stress-bearing unit), and every foot must be dominated by (i.e. contained in) a ω for prosodic wellformedness, no ω can be smaller than a foot.

³ See Cardinaletti & Starke (1996), Grohmann (2000), Laenzlinger (1998) for further details on the three-way (strong/weak/clitic) typology of pronouns in Romance and Germanic.

⁴ The structures in (16) are based on Selkirk (1995). (16b) is Selkirk's "internal clitic".



➤ **Prediction:** Given (16b), the distribution of weak pronouns is subject to (7)

Generalization (14) can now be restated as (17), which in turn derives immediately from (7).

- (17) Weak pronouns as phasal affixes
A phase boundary cannot intervene between a weak pronoun and its host.

Since the PIC imposes a phase boundary between *v* and its complement (VP), the OS facts in (2a-d) now follow without further ado.

- (18) Icelandic (VO) (= (2b))⁵
- a. Unshifted pronoun
 *[CP [Nemandinn] [C' [las] ... [vP ekki [VP tv hana]]]]
 () () ()φ
- b. Shifted pronoun
 [CP [Nemandinn] [C' [las] ... [vP hana [vP ekki [VP tv tObj]]]]
 () ()φ

In a head-initial (VO) language, the pronoun will fail to find a phase-mate (thus φ-mate) host wherever the verb leaves VP and the pronoun remains unshifted (18a). OS is thus obligatory if the pronoun is to be interpreted as weak (i.e. a non-autonomous ω), thus deriving Holmberg's Generalization (HG) for pronominal OS (18b).

- (19) German (OV) (= (2d))
- a. Unshifted pronoun
 *[CP [Der Student] [C' [hat] ... [vP nicht [VP es gelesen]]]]
 (...) ()φ
- b. Shifted pronoun
 [CP [Der Student] [C' [hat] ... [vP es [vP nicht [VP tObj gelesen]]]]
 (...) ()φ

⁵ And identically for (2c). (2a) shares this analysis too, albeit with the base positions of V and O in (18a,b) switched around for OV order.

As shown for German in (19), the object inside a head-final VP is stranded without a left-adjacent phase-mate (ϕ -mate) host by the PIC (cf. (19a)). Hence OS is obligatory in an OV language even where the lexical verb is nonfinite and thus remains inside VP (cf. (19b)). We thus derive the well-known *lack* of HG effects in OV languages (cf. table (3), and (2d) versus (2e,f)).

4. CONCLUSIONS

- The present analysis provides direct evidence for the reality of Chomsky’s phases at the PF interface (and their equation with C and v) in the form of a maximal size restriction on prosodic constituents ((1)/(7)).
- This restriction finds empirical support in various domains, including weak-pronoun distribution in Germanic.
- The analysis offers the following advantages over previous minimalist accounts of the distribution of weak pronominal objects:
 - It cuts across the VO/OV divide without having to make special provisions for either word-order type. It makes the simple prediction that a weak pronoun cannot be the leftmost element inside VP – OS and Scrambling can therefore be treated as two sides of an identical (VO/OV) coin.
 - It explains the obligatoriness of weak-pronominal OS in OV languages (cf. (2d)) without the need to stipulate that such languages are always [+OS] (as Chomsky’s (1999) account would be forced to do) – indeed, the need for a separate OS/HG parameter is eliminated.
 - It does without making special allowances for vP-adjuncts (e.g. negation in (2)) such as their ability to govern [–Foc] (Holmberg 1999) or “invisibility” at PF (cf. Bobaljik’s *Morphological Merger*); adverbial hosts are barred in the same way as any other illegitimate adjacent host-candidate, *viz.* by the PIC.
 - It exploits the prosodic deficiency of weak pronouns rather than any inherent semantic properties (thus doing without the need for such features as [+–Foc] or stipulations about the positional assignment of interpretive complexes). Pronominal OS thus feeds cliticization at PF, in conformance with the requirement that the assignment of optional EPP-features to phase heads must “yield a new outcome” (Chomsky 1999:34). The obligatory absence of pronominal OS in (2e,f) follows since cliticization is available *in situ* (the optional EPP-feature would therefore not be motivated). Since pronouns always inherently encode old information (unlike nonpronominal DPs), it is not clear that “new outcomes” could ever be motivated via the LF-interface (i.e. if it is semantic rather than prosodic properties that drive pronominal OS).
 - This approach further dispenses with the extra notion of “phonological border” (and thus the stipulated association of particular positions with particular semantics), referring only to phases and the PIC, thus arriving at greater theoretical parsimony and a less redundant system. It therefore comes closer to the goal of explaining syntactic phenomena purely in terms of ‘natural’ interface conditions.

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