

Review of “On Phases”

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1. Introduction

1.1. Dual Semantics

- (1) Strong Minimalist Thesis (SMT)
Language is an optimal solution to interface conditions that FL (faculty of language) must satisfy. UG is restricted to properties imposed by interface conditions.
- (2) Edge-Feature (EF)
An LI (lexicon) has a feature that permits it to be merged to enter into a computation.
- (3) Two Types of Merge
 - a. EM (external merge) – Y is not part of X
 - b. IM (internal merge) – Y is part of X
- (4) In accord with SMT, the two types of Merge should have different effects at the interfaces.
 - a. Phonetic interface – IM yields the ubiquitous displacement phenomenon
 - b. Semantic interface – Two types of Merge correlate well with the duality of semantics
- (5)
 - a. EM (external merge) yields generalized argument structure (theta roles, the “cartographic” hierarchies, and similar properties).
 - b. IM (internal merge) yields discourse-related properties such as old information and specificity, along with scopal effect.

1.2. Available Relations

- (6) A single designed element should contain all relevant information to further computations: the *label*. The label selects and is selected in EM, and is the *probe* that seeks a *goal* for operations internal to the SO: *Agree* or IM.
- (7) Two Syntactic Relations
 - a. Set-membership based on Merge yields the notions term-of and dominate.
 - b. Probe-goal relations, including Multiple-Agree (the probe agrees with goals in its domain as far as a goal with no unvalued features, which block further search)
 - c. C-command does not play a role within the computation to the C-I interface.
- (8) Binding Theory (Outer edge of the C-I interface)
 - a. Condition (C) could be formulated as a probe-goal relation, taking the c-commanding pronoun X to be the label of {X, SO}, hence a probe.
 - b. Condition (A) does not involve c-command, but rather Agree. (cf. Reuland (2001))

2. T is not a Phase

2.1. Feature Inheritance

- (9) Transfer operations
- a. Phonological component SM (sensory-motor) interface
 - b. Semantic component C-I (conceptual-intentional) interface
- (10) A phase is CP or *v*P, but not TP or a verbal phrase headed by H lacking ϕ -features not entering into Case/agreement checking; neither finite TP nor unaccusative/passive verbal phrase is a phase.
(Chomsky 2000: 106-107)
- (11) Phase-Impenetrability Condition (PIC)
In phase α with head H, the domain of H is not accessible to operations outside α , only H and its edge are accessible to such operations.
(*ibid.*: 108)
- (12) a. Phases (CP, *v**P) are the same for both Transfer operations.
b. Along with Transfer, all other operations apply at the phase level. (IM should be driven only by phase heads (C, *v**).)
- (13) It seems to be T that is the locus of the ϕ -features that are involved in the Nominative- agreement system, and raising of the external argument subject or unaccusative/passive object to SPEC-T.
- (14) C selects T_{comp}; V selects T_{def}. (T_{comp} = ϕ -complete T, T_{def} = defective T)
(*ibid.* 2001: 8)
- (15) T manifests ϕ -features and tense if and only if it is selected by C. Agree- and Tense- feature are inherited from C, the phase head.

2.2. Subject Condition

- (16) a. it was the CAR (not the TRUCK) of which [they found the (driver, picture)]
b. of which car did [they find the (driver, picture)]
- (17) a. *it was the CAR (not the TRUCK) of which [the (driver, picture) caused a scandal]
b. *of which car did [the (driver, picture) cause a scandal]
- (18) a. it was the CAR (not the TRUCK) of which [the (driver, picture) was found]
b. of which car was [the (driver, picture) awarded a prize]
- (19) a. C [T [α [the (driver, picture) of which] [*v** [V XP]]]]
b. C [T [*v* [V [the (driver, picture) of which]]]]
- (20) A as well as A'-movement must be triggered by probes in C.
- a. The edge-feature EF that is automatically available for an LI attracts the *wh*-phrase to the edge of C.
 - b. The Agree-feature (ϕ -features), inherited by T, attracts the DP, but only as far as T, with which it agrees.

- (21) Something embedded in the external argument is not in the search domain of the label/ probe v^* .
SPEC-to-SPEC movement is always impossible.

2.3. Raising to Object

- (22) Transmission of the Agree-feature should be a property of phase-heads in general. Hence v^* should transmit its Agree-feature to V, and probe of an object with structural Case by v^* should be able to raise it to SPEC-V.

(23) Binding

- a. the DA proved [two men to have been at the scene of the crime] during each other's trials
b. $?^*$ the DA proved [that two men were at the scene of the crime] during each other's trials

(Lasnik 2003: 147)

(24) Whether inheritance is obligatory or optional

- a. C-T universality of EPP, mechanisms of agreement
b. v^* -V obligatory?

(25) Scottish Gaelic

Chunnaic Iain Màiri
see-[PAST] Iain Màiri
"Iain saw Màiri."

(Adger 2003: 236)

(26) Scope interaction

the slave_i expected [(the picture, the owner) of him_i] to be somewhere else

- (27) a. Thin, John hammered the metal.
b. $*^*$ Thin, the joggers ran the pavement.

(Ishikawa 2005: 38)

- (28) a. John hammered the metal_i [_{AP} *t_i* thin]
b. The joggers ran [_{AP} the pavement thin]

(29) Icelandic

- a. Hann hljóp sig haltan.
he ran self-ACC limp-ACC
"He ran himself limp."
b. Hann oeskradhi sig haasan.
he shouted himself-ACC hoarse-ACC
"He shouted himself hoarse."

(Ishikawa 2005: 3)

3. A- and A'-Distinction

3.1. Chains

- (30) ①who was never seen, ② $*^*$ who was there never seen
a. A-chain formed by A-movement of the *wh*-phrase to SPEC-T
b. A'-A chain formed by A'-movement of the subject to SPEC-C
c. $*^*$ A'-A-A chain formed by successive cyclic raising of the *wh*-phrase

- (31) a. who saw John
 b. C [T [who [v* [see John]]]]
 c. who_1 [C [who₂ [T [who₃ v* [see John]]]]] A-chains = {(who₂, who₃), (who₃)}
- (32) a. who arrived
 b. C [T [v [arrive who]]]
 c. who_1 [C [who₂ [T [v [arrive who₃]]]]] A-chains = {(who₂, who₃), (who₃)}
- (33) a. The Agree-feature of C-T forms the A-chain headed by SPEC-T, at which point the edge feature EF of C raises who₂ to SPEC-C. ((17) vs. (18) ×)
 b. The edge-feature of C extracts the *wh*-phrase from its base position.
 c. The SPEC-T position is impenetrable (or invisible) to EF.
- (34) Inactivity Condition
 a. The head of and A-chain (which always has any uninterpretable features valued) to be invisible to Agree.
 b. A-chain becomes invisible to further computation when its uninterpretable features are valued.
- (35) A- and A'-positions
 a. An A'-position is attracted by an edge-feature of a phase head. Others are A-positions.
 b. Successive cyclic A'-movement creates a uniform A'-chain. Intermediate positions do not induce binding effects or have other A-position properties.
- 3.2. A'-Movement
- (36) The edge-feature of the phase heads is indiscriminate: it can seek any goal in its domain, with restrictions (about remnant movement, proper binding, etc.) determined by other factors. There are no intervention effects.
- (37) The moved phrase is labeled by an interpretable interrogative *wh*-feature and has to reach the right position in the left periphery for interpretation.
- (38) There should be no superiority effect for multiple *wh*-phrases; any can be targeted for movement.
- (39) a. C [T [who [v* [see what]]]]
 b. Who saw what?
 c. *What did who see?
- (40) a. Who did John see?
 b. C [T [who [John [v* [V who]]]]]
 c. [who C [John T [John [v* [V who]]]]]

4. Successive Cyclicity

4.1. Successive Cyclic A-Movement

- (41) a. *it was the CAR of which [the (driver, picture) [t caused a scandal]]
 b. *of which car did [the (driver, picture) [t cause a scandal]]
- (42) a. it is the CAR of which [the (driver, picture) is likely [t to [t cause a scandal]]]
 b. of which car is [the (driver, picture) likely [t to [t cause a scandal]]]
- (43) of which car did they believe the (driver, picture) to have caused a scandal

4.2. EPP-Feature

- (44) EF can be inherited from the phase head along with the Agree-feature. This extends to all T's in the phase by some kind of feature spread.
- (45) C [T ... [T ... [T ...]]]
 | ^ ^ ^ ^
- (46) a. If there is no accessible NOM, then T will have default morphology. (Icelandic and the Slavic constructions)
 b. If nothing is raised, then the inherited edge feature of T must be satisfied by EM, necessarily of an expletive since no argument role can be assigned.
- (47) *there will [a student [v* [take the class]]]

5. Weak Phases

- (48) [...] we take CP and vP to be phases. Nonetheless, there remains an important distinction between CP/v*P phases and others (vP); call the former strong phases and the latter weak.
 (Chomsky 2001: 12)
- (49) The strong phases are potential targets for movement; C and v* may have an EPP-feature, which provides are potential targets for XP-movement, [...].
 (ibid.)

5.1. Two Types of CP Phase

- (50) a. *Sam, who I know when you said you saw t, ...
 b. Sam, who I know when to try to see t, ...
 (Frampton 1990: 69)
- (51) French
 Jean a promis à Marie de partir.
 Jean has promised to Marie DE to-leave
 "Jean promised Marie to leave."

- (52) a. I have attempted/hope/sought [to answer t_1] for many years [the most difficult questions that Chomsky presented]₁.
b. *The editor has hated/love [to publish t_1] for many years [a harshly critical review of Chomsky's exciting book]₁
(Hirai 2004: 250)
- (53) a. Bill attempted/hoped/sought/wanted to write a play, but he couldn't.
b. Bill didn't hate/love/loathe to leave early. (= Bill did leave early.)
- (54) a. If CP interpreted as irrealis is selected, it is a weak phase (C^wP).
b. If CP interpreted as realis is selected, it is a strong phase (C^*P)
(*ibid.*: 253)
- (55) a. *They tried all to leave.
b. They seemed all to be happy.
(Baltin, 1995: 200)
- (56) PRO appears in VP-internal position, rather than in Spec *to* [...]
(*ibid.*: 244)
- (57) a. I want PRO to visit Sally.
I wanna visit Sally.
b. Who do you want t to t visit Sally?
*Who do you wanna visit Sally?
(*ibid.*: 244)
- (58) PRO must be assigned null Case from infinitival element or the head of *Ing* of gerundive nominals.
(Chomsky and Lasnik 1993)
- (59) a. Movement of EA or unaccusative/passive object to SPEC-T is driven by EF, inherited by T.
b. T inherits only Agree-feature and it does not inherit EF when it is selected by C^w .
- 5.2. Unaccusative and Passive vPs**
- (60) [...] unaccusative and passive VPs are phases as well. (VP = vP or VP selected by v_{def})
(Legate 2003: 506)
- (61) a. [At which of the parties that he_1 Mary₂ to] was every man₁ \surd introduced to her₂ *?
b. *[At which of the parties that he_1 invited Mary₂ to] was she₁ * introduced to every man₂ *?
(*ibid.*: 508)
- (62) a. Every organizer₁'s embarrassment escaped Uribe-Etxebarria₂ at the conference where he_1 mispronounced her₂ name.
b. *Every organizer₁'s embarrassment escaped her₂ at the conference where he_1 mispronounced Uribe-Etxebarria₂'s name
c. [At which conference where he_1 mispronounced Uribe-Etxebarria₂'s name] did every organizer₁'s embarrassment \surd escape her₂ *?
d. *[At which conference where he_1 mispronounced Uribe-Etxebarria₂'s name₂] did it₂ * escape every organizer entirely *?
(*ibid.*: 508)

- (63) The raised goal must reach the probe by means of local steps, passing through intermediate positions where it leaves copies. For A'-movement, these local steps could turn out to be as small as every category.

References

- Adger, D. 2003. *Core Syntax: A Minimalist Approach*. New York, NY.: Oxford University Press.
- Baltin, M. 1995. "Floating Quantifiers, PRO, and Predication," *Linguistic Inquiry* 26, 199-248
- Baltin, M. 2002. *The Null Content of Null Case*. Ms. New York University, New York, NY.
- Chomsky, N. 2000. "Minimalist Inquiries: The framework," in Martin, R. and J. Uriagereka, eds., *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, 89-155. Cambridge, MA.: MIT Press.
- Chomsky, N. 2001. "Derivation by Phase," in M. Kenstowicz, ed., *Ken Hale: A Life in Language*, 1-52. Cambridge, MA.: MIT Press.
- Chomsky, N. 2004. "Beyond Explanatory Adequacy," in A. Belletti, ed., *Structures and Beyond*, 104-131. Oxford: Oxford University Press.
- Chomsky, N. 2005. *On Phases*. Ms. MIT, Cambridge, MA.
- Frampton, J. 1990. "Parasitic Gaps and the Theory of WH-Chains," *Linguistic Inquiry* 21, 49-77.
- Lasnik, H. 2003. *Minimalist Investigations in Linguistic Theory*. New York, NY: Routledge.
- Legate, J. A. 2003. "Some Interface Properties of the Phase," *Linguistic Inquiry* 34, 506-516.
- Hirai, D. 2004. "Control Infinitives and Two Types of CP Phase," *English Linguistics* 21: 2, 241-264.
- Hornstein, N. 1999. "Movement and Control," *Linguistic Inquiry* 30, 69-96.
- Hornstein, N. 2001. *Move! A Minimalist Theory of Construal*. Oxford: Blackwell.
- Ishiakwa, Y. 2005. *Syntactic Analysis of Intransitive Resultatives: Null DP and the Maximization Principle*. Master's Thesis. Osaka University, Osaka.
- Postal, P. 1974. *On Raising: One Rule of English Grammar and its Theoretical Implications*. Cambridge, MA.: MIT Press.