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.
(Chomsky, 2000: 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)
(Chomsky, 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 [$_{\alpha}$ [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$_1$ expected [(the picture, the owner) of him$_1$] 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$_1$ [$_{AP}$ t_1 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."

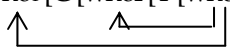
(Ishikawa, 2005: 3)

3. A- and A'-Distinction

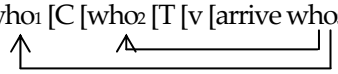
3.1. Chains

(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 [who$_2$ [T [who$_3$ v* [see John]]]]]　A-chains = {(who$_2$, who$_3$), (who$_3$)}



(32) a. who arrived
b. C [T [v [arrive who]]]
c. who$_1$ [C [who$_2$ [T [v [arrive who$_3$]]]]]　A-chains = {(who$_2$, who$_3$), (who$_3$)}



(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 who$_2$ 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, [...].

(Chomsky, 2001: 12)

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)

(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)

(Hirai, 2004: 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* [...]

(Baltin, 1995: 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?

(Baltin, 1995: 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: 1)

(61) a. [At which of the parties that he$_1$ Mary$_2$ to] was every man$_1$ √ introduced to her$_2$ *?
b. *[At which of the parties that he$_1$ invited Mary$_2$ to] was she$_1$ * introduced to every man$_2$ *?

(Legate, 2003: 3)

(62) a. Every organizer$_1$'s embarrassment escaped Uribe-Etxebarria$_2$ at the conference where he$_1$ mispronounced her$_2$ name.
b. *Every organizer$_1$'s embarrassment escaped her$_2$ at the conference where he$_1$ mispronounced Uribe-Etxebarria$_2$'s name
c. [At which conference where he$_1$ mispronounced Uribe-Etxebarria$_2$'s name] did every organizer$_1$'s embarrassment √ escape her$_2$ *?
d. *[At which conference where he$_1$ mispronounced Uribe-Etxebarria's name$_2$] did it$_2$ * escape every organizer entirely *?

(Legate, 2003: 4)

(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.

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