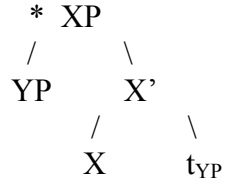
LOCALITY AND ANTI-LOCALITY IN A MERGE-BASED SYSTEM

Ángel J. Gallego
Centre de Lingüística Teòrica / Universitat Autònoma de Barcelona

1. Goal: This paper argues that "anti-locality" fails to be conceptully motivated in a system that dispenses with labels (cf. Collins 2002, Chomsky 2008) and takes Merge to be 'free', not subject to feature-checking/criteria satisfaction (*pace* Pesetsky & Torrego 2006, Rizzi 1997). Since Merge (both external and internal) is unbounded/free/unconstrained, nothing can plausibly preclude comp-to-spec movement during computation. We suggest to recast alleged anti-locality effects (the immobility of VP/TP) from a theory of feature splitting proposed by Obata and Epstein (2008).

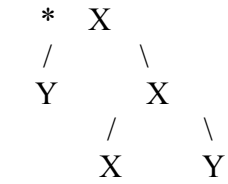
2. Anti-locality: the conceptual argument. In Abels (2003), the main conceptual argument for the *Anti-locality Constraint* (see (1)) follows from the GB-based interpretation of Chomsky's (1986, 1995) Last Resort, which was rooted in the idea that movement must involve feature-checking.

(1) Anti-Locality Constraint:



There are two possible ways to understand (1). The first one, as said, involves feature checking: if one assumes that all applications of Move are feature driven (as in Chomsky 1986, 1995), then YP will not be allowed to move to [Spec, X], as the first merger between X and YP, giving rise to a head-complement dependency, should suffice for all the features of these dependents to be checked. A second way of interpret (1) is more configurational: if X-bar theory notation is dispensed with, then the structure in (1) is actually as in (2), where—as can be seen—the same configuration is created after Y (YP) is moved:

(2) Bare Phrase Structure of (1):



Under the quite reasonable idea that all operations must have an effect in the output, providing something that 'wasn't already there' (cf. Chomsky 1995), (2) should indeed be barred.

3. Anti-locality: the empirical evidence. In the context of Phase Theory, the Anti-locality Constraint is supposed to derive the effect of Chomsky's (2000) *Phase Impenetrability Condition* (PIC), which has been invoked to capture two big facts about human language syntax: successive cyclic movement and island/subjacency effects. The role of Chomsky's PIC is to restrict locality so that movement can only target dedicated specifiers, the so-called "edges" [Spec, v] and [Spec, C]. As noted by different scholars (cf. Abels 2003, Boeckx 2007) the problem for the PIC is that it is far from easy to come up with a good reason why only edges are available for movement within a phase. The goal Abels' (2003) *Anti-locality Constraint* is precisely to derive the PIC from locality, adopting the logic of Chomsky's Last

Resort: given that comp-to-spec movement is illegitimate, phase inmates will be forced to move to [Spec, P] (where P is phase head). This is shown in (3), where the internal argument *Mary* will not be able to move to [Spec, V]:

(3) a. *[$_{v*P}$ John v* [$_{VP}$ <Mary> V loves <Mary>]] (barred because of anti-locality)
b. [$_{v*P}$ <Mary> [John v* [$_{VP}$ V loves <Mary>]]

For this very reason—Abels (2003) argues—VP will never be able to move, since it would have to use [Spec, v*] as a escape hatch first, which is not possible.

(4) *[$_{v*P}$ <[$_{VP}$ loves Mary]> [John v* <[$_{VP}$ loves Mary]>] (barred because of anti-locality)

Empirically, anti-locality is taken to derive an observation made by Chomsky (2001): phase heads cannot be stranded. Abels (2003) provides evidence that this holds for CP, v*P, and PP phases, which results in TP, VP, and DP (selected by P) failing to move, as the data below show:

(5) a. *Weil [$_{VP}$ ihm dieser Turm morgen zu besichtigen] empfohlen wurde. (German)
because him this tower tomorrow to visit recommended was
'…because it was recommended to him that he visit the tower tomorrow'
b. *[$_{TP}$ Maria sé að lesa] heldur Jón að. (Icelandic)
Maria is to read believes Jon that
'Jon believes that Maria is to read'
c. *[$_{DP}$ Hoevel geld] had ze op gerekend? (Dutch)
how-much money has she on counted
'How much money has she counted on?'

[taken from Abels 2003: 141, 117, 187]

4. Empirical and conceptual problems. However appealing and intuitively sound, the logic of anti-locality goes away the moment two assumptions are dispensed with: (i) movement is feature-triggered (under a feature-based interpretation of Last Resort), and (ii) labels exist (configuration-bases interpretation of Last Resort). We believe that there are grounds to cast doubt on both (i) and (ii). That labels can be dispensed with as has been shown by Collins (2002) and Chomsky (2004, 2008), so we will assume it without argument—there is no operation in Bare Phrase Structure that yields "γ" in {γ, {α, β}} from Merge (α, β), assuming that Merge only manipulates "α" and "β"—.

Consider next the more interesting (and controversial) hypothesis that movement should not be thought of in terms of feature-checking, which has been shown to be correct at least in cases of long-distance Agree (cf. Chomsky 2000, 2001). Such a hypothesis clearly departs from feature-based approaches to Merge, where Merge is said to be 'motivated' or 'licensed' by means of feature-checking (cf. Pesetsky & Torrego 2006, Rizzi 1997), and embraces Chomsky's (2004, 2008) claim that both Merge and Move (the same operation, external or internal) is free.

Empirically, there are also problems for the anti-locality account of stranding effects. As Abels (2003) himself notes, complements of P can be stranded in some languages (e.g., English).

5. An alternative. Even if (1) can be ruled out on conceptual grounds, we need to provide an explanation of why, in some circumstances, some elements cannot be moved—most pressingly, within Phase Theory, the complements of v* and C—. We would like to present an account of these fact that recasts the Richards-Chomsky analysis of φ-feature inheritance in terms of feature splitting. Recall that, according to Chomsky (2008) and Richards (2007),

the φ-features generated in v* and C must be passed down to V and T respectively, as shown in (7). The main goal of this step is that φ-features are in the complement domain of phases by the time deletion-via-transfer applies:

(7) $[_{v*P}$ DP v*φ $[_{VP}$ V DP]] → $[_{v*P}$ DP v* $[_{VP}$ Vφ DP]] → $[_{v*P}$ DP v* ~~$[_{VP}$ Vφ DP]~~]

Consider (7) from a different perspective now. In particular, suppose that v* and V start the derivation together, a claim that we would also entertain for C and T, assuming, with Rizzi (1997) and Stowell (1981), that these units are actually one and the same (a 'discontinuous' category). As just noted, given the logic of Chomsky's and Richards' approach to feature valuation, the φ-features of the complex unit v*-V will have to end up in the complement domain of the phase. For these authors, this is achieved through φ-feature inheritance, but here we would like to entertain the idea that it is by means of Obata & Epstein's (2008) 'feature splitting'. In particular, v* and V start the derivation together, but by the time Spell-Out has to apply, v* moves leaving 'the garbage' (V, actually the 'φ-part' of the v*-V cluster) behind. If this possibility is tenable (Obata & Epstein 2008 show its advantages for improper movement), then one way to regard the "VP" is as a non-existing or virtual projection, with no head: The head was v*, but after splitting we only have "Agr", which is not a lexical item (cf. Chomsky 1995). As a consequence of feature splitting, at the end of the phase, we end up with two head-less projections (TP and VP, to be read as φPs), which therefore cannot move.

6. Conclusions. This paper has argued that there are conceptual reasons to cast doubt on the version of anti-locality in (1). If Merge (external or internal) is free, then it cannot be subject to syntax-internal checking requirements, as in the GB-based interpretation of Last Resort. There is, however, an empirical residue of (1): VP and TP movement. We have argued that the immobility of these units follow sfrom the fact that, after feature-splitting, the VP is actually not a *bona fide* category, but an agreement projection of sorts. If "Agr" is not a lexical item, then one cannot speak of VP. Still problematic is the fact that the complement of P can move in some languages: instead of parametrizing P, we would like to suggest that P is not a phase head. This not only solves the problem, but it is further consistent with the lack of uninterpretable φ-features on P (this head assigns inherent Case). Finally, notice that if there is no "VP/TP", we can derive one other important empirical observation: the fact that movement is punctuated. If after feature-splitting applies, there is no "TP" proper, then there is no [Spec, T] either, which may explain why movement to this position (and thus reconstruction) fails. The major empirical problem for this comes from the EPP: subjects move to (and stay in) [Spec, T]. The only way out, given our assumptions, is that this step takes place before splitting: this falls into place if subject/object raising is related to φ-features, which act as soon as possible.

SELECTED REFERENCES: Abels, K. 2003. Successive cyclicity, anti-locality, and adposition stranding. PhD dissertation, Uconn. **Boeckx, C. 2007.** *Understanding minimalist syntax: Lessons from locality in long-distance dependencies*. Oxford: Blackwell. **Chomsky, N. 1986.** *Knowledge of language. Its nature, origin, and use.* New York: Praeger. **Chomsky, N. 2004.** "Beyond explanatory adequacy". In *Structures and beyond. The cartography of syntactic structures (vol. 3)*, A. Belletti (ed.), 104-131. Oxford, NY: Oxford University Press. **Chomsky, N. 2008.** "On phases". In *Foundational issues in linguistic theory. Essays in honor of Jean-Roger Vergnaud*, C. Otero et al. (eds.), 134-166. Cambridge, MA: MIT Press. **Collins, C. 2002.** "Eliminating labels". In *Derivation and explanation in the minimalist program*, S. Epstein and T. Seely (eds.), 106-132. Malden, MA: Blackwell. **Obata, M. and Epstein, S. 2008.** "Deducing improper movement from phase-based C-to-T phi-transfer: Feature-splitting internal merge". Talk given at *Ways of structure building*, University of the Basque Country, Vitoria-Gasteiz, November 13-14 2008. **Pesetsky, D. and Torrego, E. 2006.** "Probes, goals, and the nature of syntactic categories". In *Proceedings of the seventh Tokyo conference on psycholinguistics*, Y. Otsu (ed.), 25-60. Tokyo: Hituzi Syobo Publishing Company. **Richards, M. 2007.** "On feature inheritance: An argument from the phase ompenetrability condition". *Linguistic Inquiry* 38: 563-572.