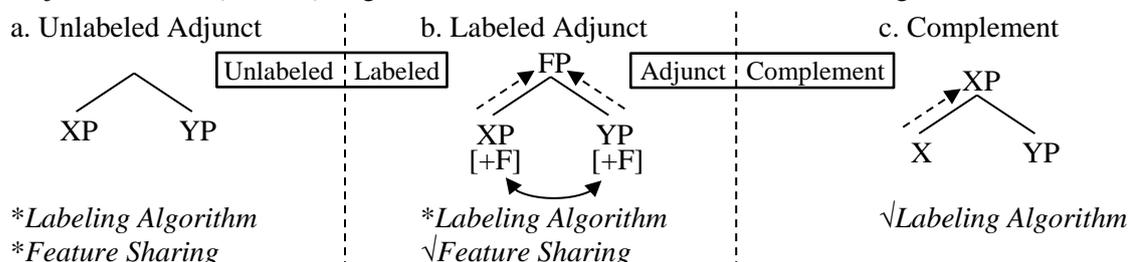


Bare Adjunction as “Two-Peaked” Structure

Synopsis: This paper explores phrase structure building of adjuncts. We propose that adjuncts have no labels (‘Unlabeled Adjunct’) due to inapplicability of *Labeling Algorithm* (LA; Chomsky 2008) to {XP,YP} generated by External Merge (EM), but they can be labeled (‘Labeled Adjunct’) via *Feature Sharing* (FS; Chomsky 2013). Specifically, given a natural assumption on Narrow Syntax that Merge targets labeled nodes only (Chomsky 2000), derivations including Unlabeled Adjunct inevitably result in a “two-peaked” structure (Epstein, Kitahara, and Seely (EKS) 2012), while ones with Labeled Adjunct a “one-peaked” structure. It will be shown that the proposed analysis is not only empirically strong but also theoretically desirable in that it can deduce various classic adjunct/complement asymmetries and possibly eliminate adjunct-specific operations/stipulations from syntax.

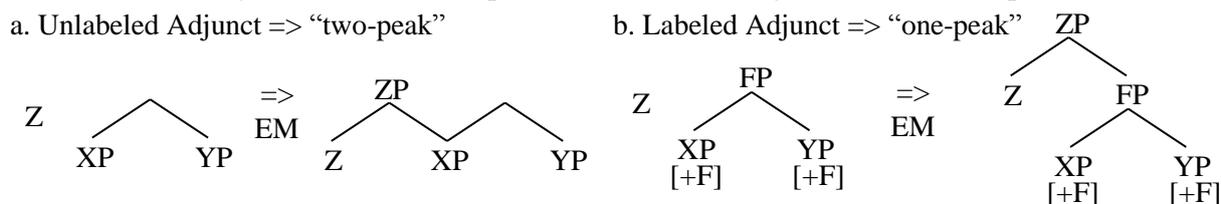
Proposal: The logic of our claim consists of three steps. First, since innovation of *Segment* (May 1985, Chomsky 1986), the defining character of adjuncts is {XP,YP} created by EM; e.g. {VP,PP}/{NP,PP}=verbal/nominal modifiers, {VP,CP}/{NP,CP}=adverbial/relative clauses. Second, since Chomsky’s (2008) LA has nothing to say about EMed {XP,YP} (LA: (i) In {H, α }, H an Lexical Item selected from Numeration, H is the label., (ii) If α is Internally Merged to β forming { α,β }, then the label of β is the label of { α,β }.), the resultant structure of adjunction remains unlabeled. Note here that the absence of labels for adjuncts has been explicitly defended in important work by Chametzky (1996, 2000), Hornstein and Nunes (2008), and Hornstein (2009), but our idea crucially differs from them in that unlabelability is strictly governed by LA and FS, not optionality of the independent operation *Labeling*. Finally, the label of EMed {XP,YP} can be determined iff two phrases share some prominent feature [+F] (Chomsky’s (2013) FS; see also Narita and Fukui (2012) for the relevant discussion of *feature prominence*). Our proposal is schematically summarized as in (1).

(1) Adjuncts (EMed {XP,YP} in general) are bare of labels due to LA but can get labeled via FS.



What does this difference in labeling yield? Now suppose that only labeled nodes are accessible to Merge (Chomsky 2000). Interestingly, given this natural assumption on Narrow Syntax, the next Merge of Z creates significantly different structures depending on the Unlabeled/Labeled partition. In (1a), on the one hand, since the unlabeled syntactic object is inaccessible to Merge, Z is combined with one of two phrases in accord with its selectional property, hence a “two-peaked” structure (EKS 2012). In (1b,c), on the other hand, a standard “one-peaked” structure is generated because Merge of Z can target the entire labeled syntactic object. This state of affairs is recapitulated in (2). Consider two different derivations below, in which X, Y, and Z can be instantiated by V, P, and T, respectively.

(2) Unlabeled Adjuncts result in “two-peak” while Labeled Adjuncts deliver “one-peak”.



In short, the proposed theory is a hybrid approach between Chomsky’s (2008, 2013) LA/FS and EKS’s (2012) “two-peaked” structure. Furthermore, it can be regarded as a natural extension of EKS’s analysis of subjects, which share {XP,YP} with adjuncts (Kayne 1994, Uriagereka 1999).

Explanandum: The target of explanation is adjunct/complement asymmetries such as island, reconstruction, intervention, scrambling/ellipsis, etc. The proposal can unify the seemingly unrelated asymmetries based on the Unlabeled/Labeled bifurcation in (1). The descriptive generalization that adjuncts in some feature transaction are visible to Narrow Syntax will be discussed.

Island: Huang (1982) originally proposes the *Condition on Extraction Domain* (CED) that complements do not constitute an island (3a) while non-complements like adjuncts do (3b).

- (3) a. **Who** did you believe [that John saw *t*]? b. *?**Who** did John get jealous [after I talked to *t*]?

However, there are interesting exceptions to CED. Borgonovo and Neeleman (2000) and Miyamoto (2012) observe that some adjuncts are transparent for extraction in English (4a) and Japanese (4b).

- (4) a. **What** did John arrive [whistling *t*]? (√Extraction)
 b. **Kinoo toochaku-shita-yori** kyou gakusei-ga [*t* oozei] toochaku-shita. (√Extraction)
 yesterday arrive-did-than today student-Nom many arrive-did
 ‘Today more students arrived than *e* arrived yesterday.’

Their generalization is that islandhood of adjuncts disappears iff they have an Asp-feature-transaction with the clausal spine (cf. Truswell 2007). Crucially, for the present discussion, this Asp-feature is relevant for labeling adjuncts via FS. We contend here that extraction out of Unlabeled Adjunct/“two-peak” is banned because the Probe in the left periphery cannot c-command/Agree with the Goal in YP (2a,3b), whereas there is no problem with extraction out of Labeled Adjunct/“one-peak” (2b,4). The correlation between extraction and feature-transaction is further verified with overt morphology in Czech (Boeckx 2003), Hungarian (Den Dikken 2009), and Tagalog (Rackowski and Richards 2005).

Reconstruction: Speas (1990) find an asymmetry in reconstruction between two types of adjunct (5).

- (5) a. In **Ben_i**’s office, **he_i** is an absolute dictator. b. *In **Ben_i**’s office, **he_i** lay on his desk.

She suggests that only φ/θ -checked adjuncts are visible to Condition C/c-command as in (5b), not (5a). Assuming that φ/θ -formal features count as prominent for the purpose of FS, this reconstruction data also fall under the proposed analysis because visibility of adjuncts relies on the existence of labels.

An apparent problem with our claim is the adjunct/complement asymmetry documented by Lebeaux (1988). This is because, while both Nominal Complement Clauses (NCC) and Relative Clauses (RC) are a strong island (Complex NP Constraint), only RCs are assumed to show anti-reconstruction (6).

- (6) a. Which story [_{RC} that **John_i** wrote] did **he_i** like? (√Condition C/*Extraction)
 b. *Whose claim [_{NCC} that **John_i** is nice] did **he_i** believe? (*Condition C/*Extraction)

Nevertheless, our biconditional prediction about extraction/reconstruction is actually borne out. In this respect, Lasnik (1998) argues against Lebeaux (1988) that NCCs are reconstructed if pragmatically controlled (7). Moreover, Donati and Cecchetto (2011) maintains that NCCs are in fact an adjunct because of islandhood, θ -Criterion exemption, and constituency.

- (7) How many arguments [_{NCC} that **John_i**’s theory was correct] did **he_i** publish? (√Condition C)

The impossibility of extraction/reconstruction in RCs and NCCs, both of which are {NP,CP}, is correctly predicted under the current proposal that adjuncts with no FS are invisible to c-command.

Intervention: Haegeman (2013) uses functional heads to analyze intervention in adjunct/argument asymmetries. On the assumption that Spec-Head agreement is recaptured by FS/Criteria (Rizzi 2013), Haegeman’s paradigm is explained with Labeling and Relativized Minimality.

Scrambling/Ellipsis: Bošković and Takahashi (1998) treats the fact that adjunct scrambling in Japanese is possible only when anchored by features like Neg and Wh. This follows from FS without acyclic LF-lowering. Under Oku (1998), the same logic extends to argument ellipsis.

Theoretical Implications: If our analysis is tenable, we may (i) eliminate syntactic operations specific to adjuncts such as *Late-Merge* (Fox and Nissenbaum 1999, Stepanov 2001) or *Pair-Merge/Simplification* (Chomsky 2004), keeping Merge simplest; Merge (α,β) => { α,β }, (ii) capture Chomsky’s (2004) original insight that adjuncts are “on a separate plane”, (iii) derive inertness of adjuncts regarding Locality of Selection/c-command without *Segment*-levels, and (iv) show that labeling through set-intersection is allowed by UG as one logical possibility (Citko’s 2008 *Project Both*; see Chomsky 1995, Ch.4 for the contrary view). These are a theoretically welcome result under the tenet of Minimalist Program, especially *Bare Phrase Structure* (Chomsky 1994).

Selected References: Chomsky, N. 2008. On Phases. *Fundamental Issues in Linguistic Theory*, 134-166, MIT Press.; 2013. Problems of Projection. *Lingua* 130, 33-49.; Citko, B. 2008. Missing Labels. *Lingua* 118, 907-944.; Epstein, S., H. Kitahara, and D. Seely. 2012. Structure Building that Can’t Be. *Ways of Structure Building*, 253-270, OUP.; Hornstein, N. 2009. *A Theory of Syntax*. CUP.