

*A B and

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Introduction In this paper, we address a problem in the domain of coordination, namely, that no language allows conjunctions of the following form: **A B and_J*, (where _J is the _J coordinator of Mitrović and Sauerland (2014)). We propose an analysis that ties this generalization to the selection/projection properties of *and_J*, (a coordinator is never *the* head of coordination) and relies on particular assumptions about linearization, which is (in part) determined by projection.

The generalization The **A B and_J* pattern seems to be a stable cross-linguistic generalization, crucially *independent* of head-directionality, e.g., in rigid head-final languages, like Turkish:

- (1) a. [vazo] ve [çay-dan-lık] masa-nın üzer-in-de TURKISH
vase **and_J** tea-ABL-NZR table-GEN on-3-LOC
- b. * [vazo] [çay-dan-lık] ve masa-nın üzer-in-de
vase tea-ABL-NZR **and_J** table-GEN on-3-LOC
'The vase and the teapot are on the table.'

The generalization holds across the following sample of languages (these are languages for which it has been made sure that we are talking about _J-coordination rather than _μ-coordination or 'with', aka comitatives): (i) *English, Russian, Hungarian* with head initial clauses and noun phrases; (ii) *Mandarin Chinese* with head initial clauses and head final noun phrases; (iii) *Farsi, Georgian* with head final clauses (or VPs) and head initial noun phrases; (iv) *Bengali, Turkish* with head final clauses and noun phrases. Two apparent exceptions that we have found (Japanese *-to* and Latin *-que*) are explained by independent factors (Japanese *-to* being interpreted as a comitative rather than 'and_J', and Latin *-que* being _μ rather than _J coordination in terms of Mitrović and Sauerland (2014, 2016)).

ConjP hypothesis The fact that this ordering does not emerge in any head-final language (to the best of our knowledge), shows that the standard analysis where 'and_J' heads a ConjP of its own, cannot be on the right track (why are there head final VPs, for example, but no head final ConjPs?). Additional evidence comes from the fact that, as outlined by Neeleman and Tanaka (2020), the ConjP hypothesis faces a several other problems. For one, the Conj head does not seem to select. It can basically take any XP in its complement position, unlike any other head in the clausal or nominal spine. Moreover, a ConjP must be categorically different from its conjuncts. But strikingly, if the conjuncts are of the same type, say all DPs, the coordination also has the distribution of a DP. In fact, even in cases where the conjuncts aren't likes, as in (2) (taken from Bruening and Khalaf, 2020) it will have the distribution of both a DP and an AP, but not of anything else. This would only be possible if the features of both conjuncts would project, not of the coordinator. But then ConjP would no longer be a projection of Conj.

- (2) Danny became [[_{DP} a political radical] and [_{AP} very antisocial]].

We therefore reject the ConjP hypothesis and argue that the **A, B and_J* constraint must instead receive a different explanation.

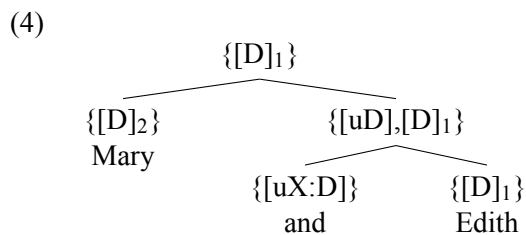
Projection and selection As a starting point, we build on Zeijlstra (2004), who argues that to account for these distributional and selectional properties of conjunctions, we need a hypothesis on how selectional and non-selectional features project in syntax. Zeijlstra (2020) makes the following assumptions. First, there are two type of features: independent features ([F]s) and dependent features ([uF]s, sometimes also noted as [*F*]s). Second, a root is not grammatical if it carries a dependent feature. Third,

every feature percolates to the next higher node, unless one daughter carries a feature [F] and her sister a feature [uF]. If they do, these features do not project, provided that every node still carries (at least) one independent feature. Fourth, underspecified/unvalued features get specified/valued under sisterhood.

This mechanism allows us to compute the feature sets of a daughter if we know the features sets that her mother and sister carry. For example, [*and Edith*] in (3a), must carry {[D],[uD]}, since its mother ([*Sue [and Edith]*]) carries {[D]} and its sister (*Sue*) also carries {[D]}. Intuitively, this is correct, as [*and Edith*] can only survive when merged with another DP (assuming some version of a coordination of the likes):

- (3) a. I saw [Sue [and Edith]].
 b. *I saw [and Edith].

But if a constituent like [*and Edith*] carries the feature set {[D],[uD]} and *Edith* carries the feature set {[D]}, what is the feature set that *and* carries? Here, we propose that *and* actually contains an unvalued feature [uX:␣]. Upon Merge with, for instance, [D], [uX:␣] gets valued for D, yielding [uX:D], which is notationally equivalent to [uD]. The entire tree of [*Mary [and Edith]*] thus looks as in (4). First, *and* merges with *Edith* and values its [uX:␣] feature as [uX:D] (= [uD]). Second, both *and* and *Edith* project their [uD] and [D]₁ features respectively, because otherwise the mother node ([*and Edith*]) would have no independent features. Third, *Mary* merges with [*and Edith*], *Mary*'s [D]₂ feature and [*and Edith*]'s [uD] feature don't project (since it's effectively a case of selection: [F] and [uF]), but [*and Edith*]'s [D]₁ feature does project:



The result is thus that coordination (of two conjuncts) is effectively a projection of the categorial feature of the second conjunct, which must match the first one (otherwise the dependent [uD] feature will get projected, meaning that a selectional restriction won't be satisfied).

Linearization Given the head directionality parameter (see, e.g., Chomsky, 1981), any linearization theory has to have access to projection of independent categorial features. Our proposal is built on the linearization theory from Privoznov (to appear), which ties the linearization mechanism to projection and prosodic heaviness. It is based on the following assumptions. First, the linearization mechanism is separate from narrow syntax (as in Kayne, 1994), but (unlike Kayne, 1994) the linearization mechanism determines the linear order between sisters rather than terminals. In other words, for each branching node $\gamma = \{ \alpha, \beta \}$, the linearization mechanism returns $\alpha \prec / \succ \beta$ (meaning "all terminal nodes that α reflexively dominates precede/follow all terminal nodes that β reflexively dominates"). Second, the linear order between sisters is determined by (i) their prosodic heaviness (a heavier sister comes after a lighter one); and (ii) projection (a sister that projects its independent categorial feature comes after a sister that doesn't). Third, heaviness is parameterized across languages and determined for each maximal projection lexically (e.g., DPs can be heavy, TPs can be heavy etc.; non-maximal projections are assumed to be always lexically marked as light). By maximal projection we mean here any node that carries only independent categorial features. Fourth, crucially, if a node α dominates another node β and β is heavy, then α is heavy (no matter what the parameters say).

In this system, *and* in (4) will always precede *Edith*, regardless of whether DPs are heavy (as in head initial VP languages) or light (as in head final VP languages). If DPs are heavy, then *and* will precede *Edith*, as *Edith* is heavy (being a DP) and *and* is light (being a non-maximal projection). If DPs are light, then again *and* will precede *Edith*, because *Edith* projects its independent categorial feature ([D]₁) and *and* doesn't (in fact, *and* doesn't have an independent categorial feature of its own).

In addition, *Mary* in (4) will always precede [*and Edith*], regardless of whether DPs are heavy (as in head initial VP languages) or light (as in head final VP languages). If DPs are heavy, then [*and Edith*] is heavy (because it dominates *Edith* and *Edith* is heavy, being a DP). *Mary* is also heavy (being a DP), so *Mary* and [*and Edith*] are equally heavy. Then *Mary* precedes [*and Edith*], because [*and Edith*] projects its independent categorial feature ([D]₁) and *Mary* doesn't. If DPs are light, then *Mary* and [*and Edith*] are both light (*Edith* is light, and *and* is always light). In this case, again, *Mary* precedes [*and Edith*] due to projection: [*and Edith*] projects its independent categorial feature ([D]₁) and *Mary* doesn't.

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