

Deriving anaphoric co-argumenthood and predicate binding

Andrew Kato

University of California, Santa Cruz

UC SANTA CRUZ

Binding and Minimalism

The classical method for deriving antecedent-anaphor relations in narrow syntax is via the Binding Theory (à la Chomsky, 1981), or at least a variety of it:

- Reflexive distribution:
Condition A: An anaphor must be bound locally.

Among other structurally syntactic approaches, e.g., predicate marking (Reinhart & Reuland, 1993), stipulated rules/constraints are generally still set aside for anaphors.

However, developments of strong minimalist approaches (Chomsky, 1995 et seq.) have since supplied the search for structural primitives as a primary basis for contemporary linguistic pursuits. While much research continues to take Binding Theory related data prima facie, minimalist motivations have seen heavy reduction of Conditions A-C as a consequence.

Approaches to Decomposing Binding

Notable takes on delimiting anaphor distribution *without* specific binding conditions include:

- Movement:** Antecedents initially merge with anaphors, and raise (e.g., Zwart, 2002).
- Agreement:** φ -features transmitted via Agree (Reuland, 2011; Hicks, 2009; Ke, 2019).
- Movement + Agreement:** Binding as a composite operation in syntax (Diercks et al., 2020).

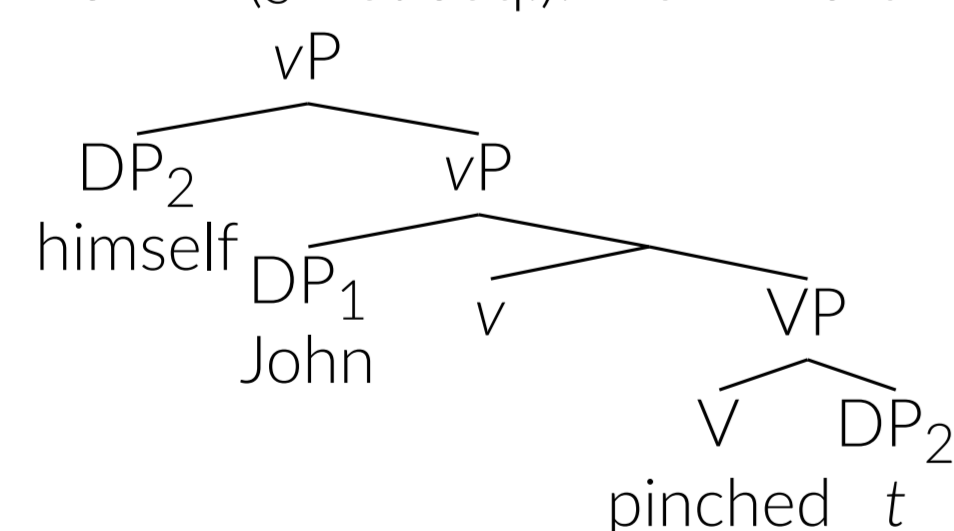
Binding-as-Agreement (BAA)

The notion of feature-matching is a fundamental intuition shared among deriving anaphors.

- John ... himself ...
 - Zhangsan ... taziji ...
 - Taroowa ... zibun ...
 - ...

Rooryck & Vanden Wyngaerd (2011; R&VW) account for this by arguing for a *direct* Agree relation between antecedents and anaphors on the basis of valuation status. This direct interaction seeks to account for covariance as in (2), whether overt (2a-b) or covert (2c).

- John_i pinched himself_i.
- R&VW (§4 et seq.): Downward Agree



- Assumptions:
 - Agree is a strictly downward operation between a probe \mathcal{P} and a goal \mathcal{G} .
 - Reflexives enter a given derivation \mathcal{D} with unvalued, interpretable features.
 - Over the course of \mathcal{D} , a reflexive Y must enter into Agree with an antecedent X , where $\mathcal{P} \rightarrow Y$ and $\mathcal{G} \rightarrow X$.

Behaving as a floating quantifier/intensifier, complex reflexives move to the edge of the vP to c-command their antecedents to Agree (3-4). The corresponding form is inserted post-syntactically. Diercks et al. (2020) refer to this as a composite operation of (Int.) Merge + Agree.

Refining Argument Distinctions

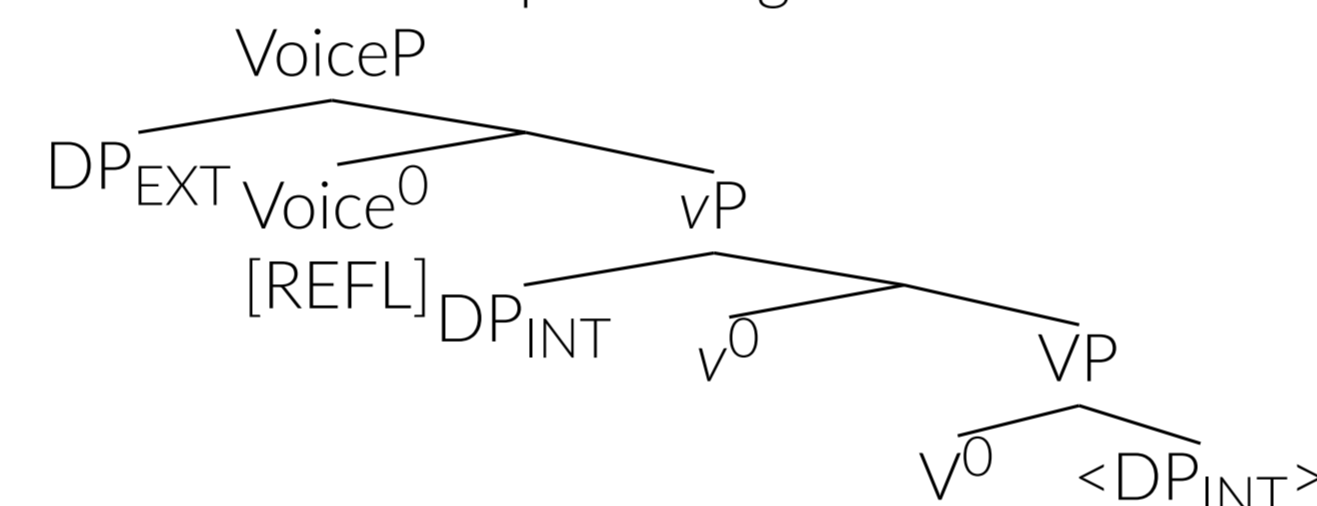
As demonstrated most recently in Ershova (2023) with West Circassian, R&VW's analysis is largely too simple in the grand scheme of argument structure. Anaphoric Agree also remains out of place in approaches that stipulate agreement as a relation involving a functional head. And, no motivation for adjoining to vP is provided by R&VW besides to feed downward Agree.

Constructing a Derivation

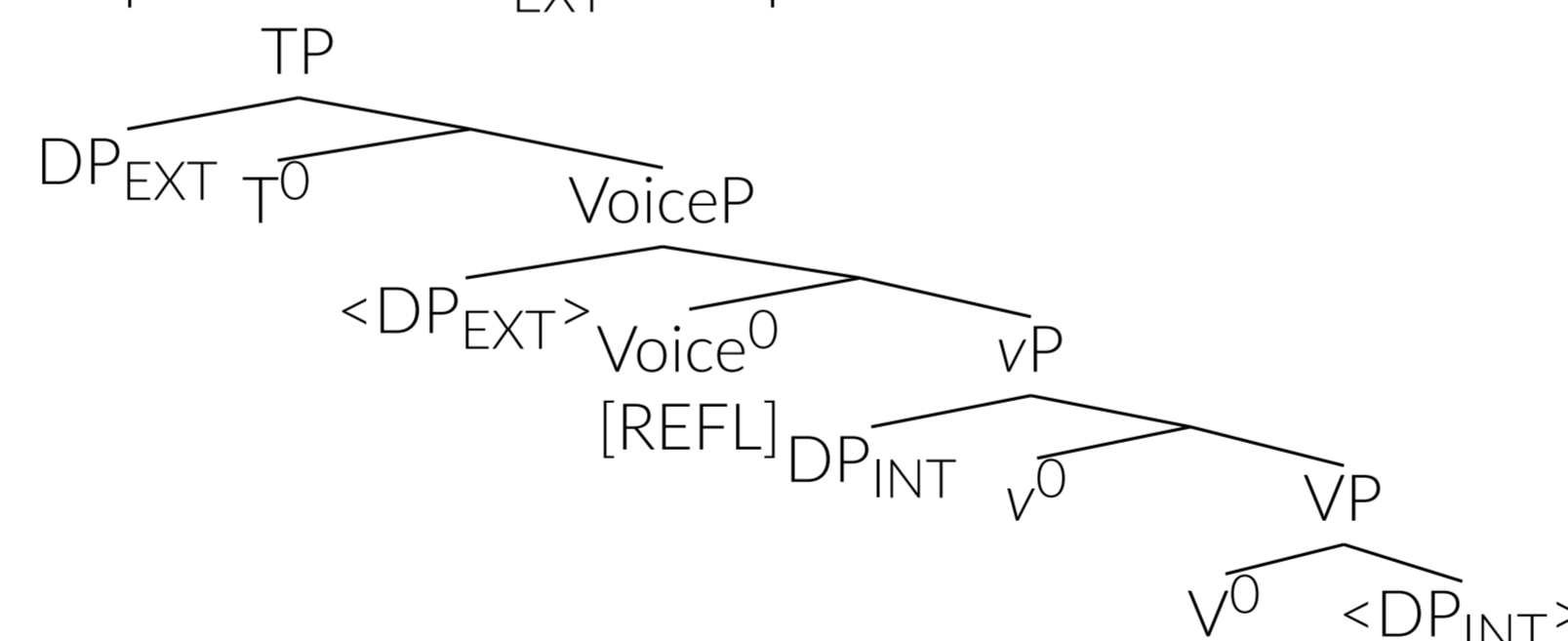
Taken up here, the derivation of anaphors is still an agreement relation, but it develops through multiple operations early on involving Voice.

- Verbal Complex:** Taking on a fine-grained approach to the verbal domain (e.g., Harley 2013, 2017), raising to vP would not c-command external arguments that lie in [Spec, VoiceP].
- Voice⁰ mediates anaphoric agreement:** Ahn (2015)'s reflexive Voice, provides an effective starting point for distributing the burden of anaphoric feature-matching to a functional head (Ershova, 2023; Paparounas & Akkuş, To Appear).
- Cyclic Agree.** Movement of the reflexive to the phase edge feeds cyclic Agree, not strict downward Agree, with Voice⁰.

- Revisions on Anaphoric Agree:



- T⁰ probes for DP_EXT as expected:



Sketching a Reflexive Voice in BAA

This analysis is developed from observations of voice systems seen in various ergative/absolute constructions (Mandar: Brodtkin, 2022; Chuj: Brodtkin & Royer, 2021):

Like object shift, **the internal argument moves to the edge of vP**, which is also predicted by R&VW.

However, more along the lines of Ershova (2023; West Circassian) and Paparounas and Akkuş (To Appear; Turkish), **Voice⁰ still intervenes after initial movement**. Brodtkin (2022) describes this structure as low object shift in Mandarin, which is motivated by [+EPP].

Voice⁰, as a probe, searches for a goal and finds DP_INT instead of any other DPs, since it has already raised to the vP edge.

The operation fails to succeed due to the unvalued features on DP_INT. Both items proceed to share features, and **the external argument in [Spec, VoiceP] values them via cyclic Agree**.

The verb left behind head-moves to Voice⁰/T⁰, and the DP_EXT is able to move to [Spec, TP] once T⁰ is merged. Linear order is reached.

Implications on Co-Argumenthood and Locality

The privilege of argumenthood, i.e., that PP adjuncts introducing DPs often fail to participate in morphological agreement, is attributed here to the late-merge distinction for adjuncts.

In terms of locality:

- The very nature of deriving binding with *agreement* precludes DPs introduced in late-merged adjuncts, unless late merge is still regulated by phases.
- Logophors as non-local anaphors are merged with pre-valued features, as expected in R&VW.
- Interpretations of ditransitives may vary based on which arguments (S, DO, IO) interact in the aforementioned reflexive-voice agreement, e.g. *John introduced Jack to himself*.

Discussion

A fully-fledged analysis of how case theories supplement/detract from BAA is well-needed. Moreover, does BAA in so-called 'agreement-less' languages differ from morphology-rich ones? BAA appears relevant for decomposing the stipulations of Binding Theory, and the co-argumenthood relation between antecedents and anaphors can be attributed to a modified reflexive voice.

As a result, this work ultimately proves relevant for future research on anaphor distribution as a window into agreement — with promising proposals of binding as a non-primitive phenomenon.

References

Ahn, B. (2015). *Giving reflexivity a voice: Twin reflexives in English*. Doctoral dissertation, University of California, Los Angeles.

Brodtkin, D. (2022). Two steps to high absolutive syntax: Austronesian voice and agent focus in Mandarin. *Journal of East Asian Linguistics*, 31, 465–516.

Brodtkin, D., & Royer, J. (2021). Ergative anaphors and high absolutive syntax. In: de la Cruz-Sánchez, G. (Ed.), *Proceedings of WWCFL 39*.

Chomsky, N. (1981). *Lectures on government and binding*. Dordrecht.

Chomsky, N. (1995). *The Minimalist Program*. The MIT Press.

Diercks, M., van Koppen, M., & Putnam, M. (2020). Agree probes down: Anaphoric feature valuation and phase reference. In: Smith, P., Mursell, J., & Hartmann, K. (Eds.), *Agree to Agree: Agreement in the Minimalist Programme*, 347–389. Language Science Press.

Ershova, K. (2023). Syntactic ergativity and the theory of subjecthood: Evidence from anaphor binding in West Circassian. *Language*, 99(2), 193–241.

Harley, H. (2013). External arguments and the Mirror Principle: On the distinctness of Voice and v. *Lingua*, 125, 34–57.

Harley, H. (2017). The 'bundling' hypothesis and the disparate functions of little v. In: D'Alessandro, R., Franco, I., & Gallego, Á. (Eds.), *The verbal domain*, 3–28. Oxford University Press.

Hicks, G. (2009). *The derivation of anaphoric relations*. Vol. 139, Linguistics Today, John Benjamins Publishing.

Ke, H. (2019). *The syntax, semantics, and processing of agreement and binding grammatical illusions*. Doctoral dissertation, University of Michigan.

Paparounas, L. & Akkuş, F. (To appear). Anaphora and agreement in the Turkish DP: Delimiting binding-through-Agree. *Natural Language & Linguistic Theory*.

Reinhart, T., & Reuland, E. (1993). Reflexivity. *Linguistic Inquiry*, 24, 657–721.

Reuland, E. (2011). *Anaphora and language design*. MIT Press.

Rooryck, J., & Vanden Wyngaerd, G. (2011). *Dissolving Binding Theory*. Oxford University Press.

Zwart, J.-S. (2002). Issues relating to a derivational theory of binding. In: Epstein, S. D., & Seely, T. D. (Eds.), *Derivation and explanation in the minimalist program*, 269–304. Blackwell.