The Prolepsis—Hyperraising scale: Evidence for a hierarchy of composite probes

Synopsis • This paper argues, based on the cross-linguistic distribution of Prolepsis and cross-clausal A-dependencies [CC$\mathfrak{A}$], that composite probes (probes containing two types of probing elements) show a hierarchy of dependence between the two sub-probes. As a result, three probing mechanisms arise, which we show are responsible for the cross-linguistic variation involved in the constructions ranging from Prolepsis to Hyperraising.

Domain $\mathfrak{A}$ • Case, agreement, and A-movement dependencies across finite clause boundaries, such as Hyperraising [HyR] (to subject [RtS] or object [RtO]) or Long-distance case/agreement [LDA], are available in many typologically diverse languages. The research on such dependencies typically distinguishes between cross-linguistically restricted true A-dependencies across finite clauses, CC$\mathfrak{A}$, and generally available binding-like A′-dependencies as found in Prolepsis. In this paper, we investigate both types of configurations in parallel, defined as domain $\mathfrak{A}$ in (1), which includes Prolepsis since the dependence with an embedded pro(noun) is obligatory in these configurations (cf. *I know about Alicia that Will brought #(her) flowers yesterday*).

(1) Domain $\mathfrak{A}$: Configurations in which a matrix A-element (argument (position), Case assigner, agreement head) is in an obligatory dependency (Agree, movement, binding, predication) with another element (operator, argument (position), obligatorily bound pronoun, gap) situated in an embedded finite clause.

Characteristic properties • Many of the specific diagnostics to distinguish $\mathfrak{A}$-configurations vary across languages; however, we have isolated four characteristic properties: A) whether the construction is restricted by matrix predicate selection, B) whether movement in the embedded clause is involved, C) whether the dependency shows locality restrictions (in particular, A-Minimality), and D) whether there are semantic restrictions on the relevant DP. By combining different values of the characteristic properties, we show, differently from previous approaches, that the $\mathfrak{A}$-domain does not simply consist of two types of configurations (e.g., Prolepsis and HyR), but that the empirical landscape represents a continuum of five $\mathfrak{A}$-constructions.

Characteristic properties of $\mathfrak{A}$-configurations		①	②	③	④	⑤
A	Restricted matrix predicates (c-/l-selection)	no	yes	yes	yes	yes
B	Movement of DP.$\mathfrak{A}$ within the embedded clause	no	no	yes	yes	yes
C	A-Minimality (highest A-DP)	no	no	no	yes	yes
D	Semantic restrictions of DP.$\mathfrak{A}$ (e.g., topic, focus, Major Subject)	yes	yes	yes	yes	no

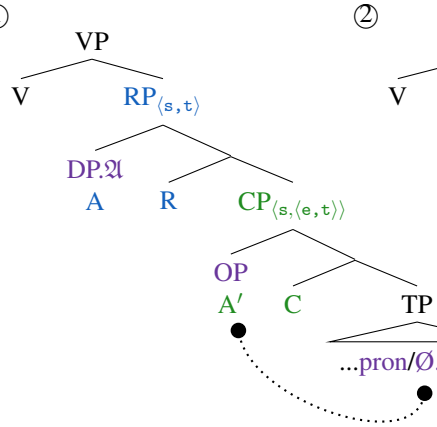
① Prolepsis: Buryat, Croatian, English, German, Japanese, Korean, Madurese, Mongolian, Nez Perce, Puyuma, Romanian...
② HyR (RtS, RtO), LDA, High Topic: Brazilian Portuguese, Passamaquoddy
③ Major Subject/Object, RtO: Japanese, Korean
④ HyR (RtS, RtO, LDA): Romanian, Tsez, Turkish
⑤ HyR (RtS, RtO): Brazilian Portuguese, Buryat, Mongolian, Nez Perce, Zulu, ?Uyghur

Common component R • We suggest that the unifying property of all $\mathfrak{A}$-configurations is a predicational R(ELATOR) head (den Dikken 2006, 2017), which relates its specifier and complement via predication, similarly to argument-introducing heads (Kratzer 2009). In constructions ②–⑤, R fuses with the embedded C, forming a composite probe (Aldridge 2004, 2008, 2017, Coon and Bale 2014, Legate 2014, van Urk 2015, Bossi and Diercks 2019, Brannon and Erlewine 2020), which consists of both A- (due to the predicational nature of R) and A′-properties (due to the features of C, e.g., topic, force). A composite A′/A-probe triggers agreement/movement/Merge of mixed A′/A-quality and resolves the (often arbitrary) assumption that the A′/A-distinction is tied to structural positions, but ties it to feature content instead.

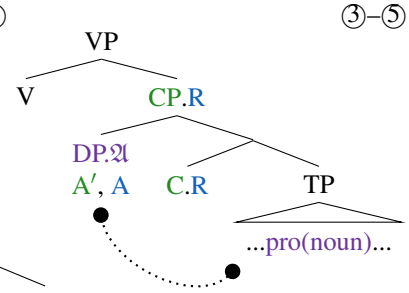
The structures for the $\mathfrak{A}$-configurations are given in (2). In Prolepsis ①, RP is directly above the embedded CP, which is turned into a predicate by a base-generated operator in Spec,CP

(den Dikken 2017, Salzmann 2017, Landau 2011). The operator identifies with a pro(noun) via unselective binding, which accounts for the lack of embedded island-sensitivity and (limited) connectivity effects in Prolepsis. DP.𝔄 occurs in Spec,RP and is predicated over by the embedded clause. It is not necessarily a matrix argument, but may acquire argument-status by further language-specific RtO. In CC𝔄 ②, DP.𝔄 is base-generated as a topic in the embedded Spec,CP (Nunes 2008, 2010, Martins and Nunes 2010), followed by HyR to the matrix clause. There is no embedded movement, hence no embedded island restrictions and connectivity effects. Finally, CC𝔄 ③–⑤ involve movement of DP.𝔄 from a base-generated TP-internal position to Spec,CP, followed by an A-dependency (HyR or LDA) with an element of the matrix clause. This type of CC𝔄 thus shows island-sensitivty and connectivity effects. In all 𝔄-configurations, DP.𝔄 (i.e. the DP that saturates the (C)R-complement predicate) behaves like an argument in an A-position and is hence visible for further A-dependencies.

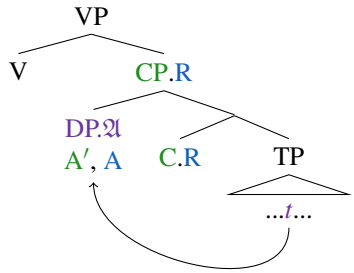
(2) ①



②



③–⑤



Hierarchy of composite probes • The difference between ③–⑤, we propose, is the result of different structures of the composite probes, (3): the two sub-probes can form a unit, probing simultaneously, ③; they can be separate but still be dependent on each other, ④; or they can be completely independent, ⑤, which renders three types of probing (Scott 2021, Deal 2015).

(3) dependent ⇐ ③: [A′+A] — ④: [A′/A] — ⑤: [A′][A] ⇒ independent

Under *conjunctive satisfaction*, ③ [A′+A], the composite probe behaves like a single probe and only sees goals which carry both matching features. DPs that lack one of the features can be skipped without violating A-Minimality. The semantic restrictions of type ③ CC𝔄 follow from the content of C combining with R. Under *independent satisfaction*, ⑤ [A′][A], the two sub-probes act entirely separately and may agree with different goals. Searching only for an argument, the R-probe targets the closest DP in line with A-Minimality. The A′-probe may attract the same DP (if it has the relevant property), a different element (e.g., in Mongolian, topicalization of a DP different from DP.𝔄 is possible), or may be ignored (Preminger 2009, 2014). Thus, CC𝔄 of type ⑤ can be semantically neutral. Lastly, *dependent satisfaction*, ④ [A′/A] (Coon and Bale 2014, Deal 2015) involves a probe consisting of two segments and combines separate probing with conjunctive satisfaction. As in ⑤, the two segments separately find the closest suitable goal for their needs, with A-Minimality confining R's search. But as in ③, the two segments are still dependent on each other in that they must also succeed as a whole, which is only possible if they target the same goal, otherwise a Feature Gluttony scenario arises (Coon and Keine 2020). This dependency between R and C is again responsible for the semantic restrictions.

Broader consequences • In addition to the relevance of predication, the structure and probing mechanisms of composite probes, this work shows that single languages may display more than one CC𝔄-configuration and provides the tools for disentangling them.