

THE A'/A SIGNATURE: SYSTEMATIC PATTERNS IN COMPOSITE A'/A PROBING

• **Synopsis:** I present a syntactic-comparative investigation of composite A'/A probes, the movement chains they trigger and how they relate to the classical A'/A distinction. I show that cross-linguistically, the mixture of A'/A properties in composite probing is highly systematic, and becomes predictable when replacing the binary A'/A distinction with a more fine-grained, tripartite system. I suggest that the "classical" A'/A properties (table (1)) in fact tie to three different factors: i) the actual movement chain (A' or A), ii) the features of the probing head ([A'], [A] or [A'/A]), and iii) the location of the probe in the functional spine. Different combinations of i)-iii) render language- and construction-specific mixtures of A'/A properties, labeled the *A'/A signature*. While on the one hand allowing for a more flexible understanding of the A'/A distinction, i-iii) simultaneously predict (im)possible clusters and correlations of A'/A properties, thus a finite set of A'/A signatures in natural language; a prediction that is borne out in the empirical landscape of composite A'/A- (as well as bare A'- and A-) configurations. Only a featural account to phrasal movement can capture the A'/A signature (cf. van Urk 2015).

• **The A'/A distinction and composite probes:** In the last years, the A'/A distinction (table (1)) has been subject to ongoing discussion, the main focus of which was how it can (not) capture cross-linguistic variation. The introduction of a featural implementation of the A'/A distinction (van Urk 2015; [ϕ /D] trigger A-movement, [foc/top/wh/rel] trigger A'-movement) allowed for **composite A'/A probes** to enter the field, yielding constructions that exhibit "mixed" properties within a single derivation.

TABLE 1 A-movement	A'-movement
case-related, restricted to nominals, cannot cross CP, no WCO, new antecedents for anaphors, no reconstruction effects, no parasitic gaps (PG), feeds further A-movement (BIM), no information-structural effects	not case-related, not restricted to nominals, can cross CP, WCO, no new antecedents for anaphors, obligatory reconstruction effects, parasitic gap (PG) licensing, does not feed further A-movement (BIM), information-structural effects

Composite A'/A probes are used extensively as explanatory tool whenever a derivation does not strictly classify as either A or A' (*a.o.* Longenbaugh 2016, Erlewine 2018, Mursell 2021, Scott 2021, Lohninger et al. 2022, F. Chen 2023). A'/A probes are primarily criticised for generating a seemingly anything-goes syntax by dissolving the A'/A distinction as a language universal and thereby suspending an important syntactic tool. I show that, when viewed through a comparative lense, composite A'/A configurations neither depict an anything-goes assembly of A'/A properties, nor do they force us to give up A'- vs. A-movement. The opposite is the case: they allow us to better understand the A'/A distinction.

• **A syntax for A'/A probes:** I present a unified syntactic approach to A'/A probing, consisting of the following ingredients: i) **A'/A probes search for a fully fitting goal and are not sensitive to intervening, partly fitting goals** (a par to *Multitasking*; van Urk & Richards 2015 and *Conjunctive Probing*; Scott 2021). I argue against a defective intervention account for A'/A probes (contrary to Coon, et al 2021, Branam & Erlewine 2022, Keine & Zeijlstra t.a.). Apparent minimality differences in the languages under investigation fall from a combination of VoiceP phasehood and the option for Voice to carry [A'/A], enabling successive-cyclic movement mediated via [A'/A] (van Urk & Richards 2015). The lack of defective intervention becomes best visible when investigating A'/A probes on Voice, allowing to skip partially fitting DPs in favour of a lower, fully fitting A'/A goal (e.g. ditransitive, long-distance extraction). ii) movement chains are always of type A (abstracting over individuals) or A' (abstracting over choice functions; cf. Sauerland 1998, Ruys 2000, van Urk 2015, Zeijlstra & Keine 2019), **"composite A'/A movement" does not exist. An A'/A probe can trigger either A'- or A-movement**, depending on which of its features is merged as a movement-inducing, strong probe. iii) **A'/A probes can be located on phasal C and/or Voice heads**. Their distribution (only on Voice, only on C, on both) varies depending on the language, the specific construction and the origin of the A'/A probe (entering the structure via parametric (under)inheritance (Miyagawa 2010) or derivational head/phrase-fusion). Different locations of A'/A probes account for successive-cyclic movement (both through VoiceP and non-locally through CP) which, in some cases, might obscure A'/A-minimality effects (e.g. if C but not Voice carries [A'/A], it can only see as far as Voice, thereby only attract elements in SpecVoiceP). The analysis suggests that not all properties listed in table (1) track the type of movement chain; instead, they tie to three different syntactic factors (**movement chain, probing head, location thereof**), which, to some degree, can be modified independently from each other.

- i. movement chain:** A' or A \Rightarrow *case-marking, WCO, PGs, feeding A-mvt, (reconstruction effects)*
- ii. probing head:** A', A, A'/A \Rightarrow *restriction to nominals, minimality, info.-struct. effects, ϕ -agreement*
- iii. location of probe:** C, T, Voice \Rightarrow *locality (can cross CP), successive-cyclic movement*

Crucially, the properties tying to one and the same factor (i-iii) cluster together in their values. If, for example, a movement chain is of type A (independent of whether it was induced by a bare [A] or a composite [A'/A] probe), it interacts with case, obviates WCO, does not license PGs, can feed further A-movement and does not need to reconstruct into its base-position for interpretation (although reconstruction is subject to language-specific variation, thus only listed in parentheses).

• **Systematic patterns of A'/A configurations:** I argue that cross-linguistically, composite A'/A derivations depict a systematic mixture of A'/A properties, highly predictable and not subject to a random mix-and-match distribution. I draw on data from unrelated languages that have been analyzed as involving [A'/ ϕ] probes: promotion to pivot in Dinka, Balinese, Malagasy (van Urk 2015, Erlewine et al 2017), Mandarin BEI passives & low topics/foci (F. Chen 2023), Khanty passives (Colley & Privoznov 2020), Hyperraising in Braz. Portuguese, Buryat, Cantonese, Janitzio P'urhepecha, Japanese, Korean, Mongolian, Nez Perce, Romanian, Turkish, Vietnamese (Lohninger et al. 2022), and finite long-distance agreement in Innu-Aimûn, Passamaquoddy, Tsez (Mursell 2021). Since all derivations involve [A'/A], probing is restricted to nominals, in-sensitive to intervening partial fits, whilst simultaneously triggering information structural effects and ϕ -agreement. The movement chain the A'/A probe induces can be of type A or A'; rendering uniform values with respect to WCO, PGs, further A-movement, case-assignment and, to some degree, reconstruction effects. If the A'/A probe is located on C, it allows movement to leave the CP phase (= PIC), irrespective of whether it is an A'- or A-chain. If [A'/A] is located on Voice, it enables successive-cyclic (A-)movement through VoiceP. Which of the two heads (Voice and C) carries an A'/A probe is not dependent on each other; all combinations are attested. Contrasting [A'/A] probes with bare [A'] and [A] probes, we predict the possible combinations in table (2); the prediction is borne out given the empirical landscape of composite A'/A (as well as bare A' and A) derivations. The important observation of this study is that even in A'/A probing, the A'/A properties from table (1) do not randomly mix and match. The properties tracking the movement chain cluster together in their values, and so do the properties tracking the probing head.

	<i>probe</i>	<i>mvt type</i>	case	WCO	PG	feeds A-mvt	info-struct.	restr. to nominal	ϕ-agree	mini-mality	cross CP
i)	A'	A'	×	✓	✓	×	✓	×	×	A'	✓
ii)	A'/A	A'	×	✓	✓	×	✓	✓	✓	A'/A	✓/×
iii)	A	A	✓	×	×	✓	×	✓	✓	A	×
iv)	A'/A	A	✓	×	×	✓	✓	✓	✓	A'/A	✓/×

TABLE 2 = Movement type (A' or A) = Probe type (A', A or A'/A) probe on C

- i) English wh-extraction, topicalization, focalization, relativization [A'] on C
- ii) Long-distance agreement [A'/A] on C
- iii) English raising to subject, passivization [A] on T
- iv) Dinka, Balinese, Malagasy promotion to pivot [A'/A] on C+Voice
Mandarin BEI passives & low topics/foci, Khanty passives [A'/A] on Voice/T
Hyperraising to subject/object [A'/A] on C

• **The A'/A signature:** This work suggests that the (English-based) two-way A'/A-distinction (table (1)) is too coarse as a language-universal. Instead, A'/A properties tie to three syntactic factors, allowing for different combinations of property-clusters: i) the type of movement chain (A or A'), ii) the probing head (A', A or A'/A), iii) the location of the probe. The pattern of i)-iii) in English is just one option out of many: other languages allow for other combinations, labeled the language-specific *A'/A signature*. Cross-linguistically, there is only a finite number of possible A'/A signatures which becomes evident only from a comparative perspective, taking into account configurations with and without composite A'/A probes. In all four A'/A signatures in table (2), it is evident that the properties tying to the movement chain exhibit consistent values; we thus do not need to refrain from A'- vs. A-movement as a possible language-universal, not even in languages with composite probes. We only need to be clearer which properties really track the movement chain, and which do not. Last, the A'/A signature is a further argument for a featural implementation of movement, as it cannot be captured in a positional framework.