



1. Main Claim

- Concord in Archi is best analysed as feature copying in Harmonic Serialism.
An existing approach posits an unrestricted copy operation (Polinsky, 2016).
A parallel constraint based approach (SPOT) faces the sour grapes problem (McCarthy, 2009) and cannot derive gapped structures.
A Harmonic Serialism account avoids these problems by allowing opaque interaction of a local operation.

2. Data: Concord in Archi

- Gender concord in Archi (Nakh-Daghestanian, Russia) occurs on participles, numerals, demonstratives, and pronominal possessors.
It never occurs on quantifiers, nominal possessors and nominal adjectives.

- (1) čeh hiba-t:u-t adam
not.one be.good-ATTR-IV.SG person(IV)[SG.ABS]
'not one good person' (Bond & Chumakina, 2016b, 116)
(2) to-b ɬeju do:ʒu-b ʒoʃon
that-III.SG five<III.SG> be.big-ATTR-III.SG dress(III)[SG.ABS]
'those five big dresses' (Bond & Chumakina, 2016a, 56)
(3) ɬ:wak-du-t maʃarul duʒriqʃ
near-ATTR-IV Avar village(IV).LOC
'in the nearby Avar village' (Polinsky, 2016, 230)
(4) Pat'i dit:a<r>u da-qʃa
Pati(II).SG.ABS early<II.SG> II.SG-come.PFV
'Pati came early.' (Bond & Chumakina, 2016b, 113)

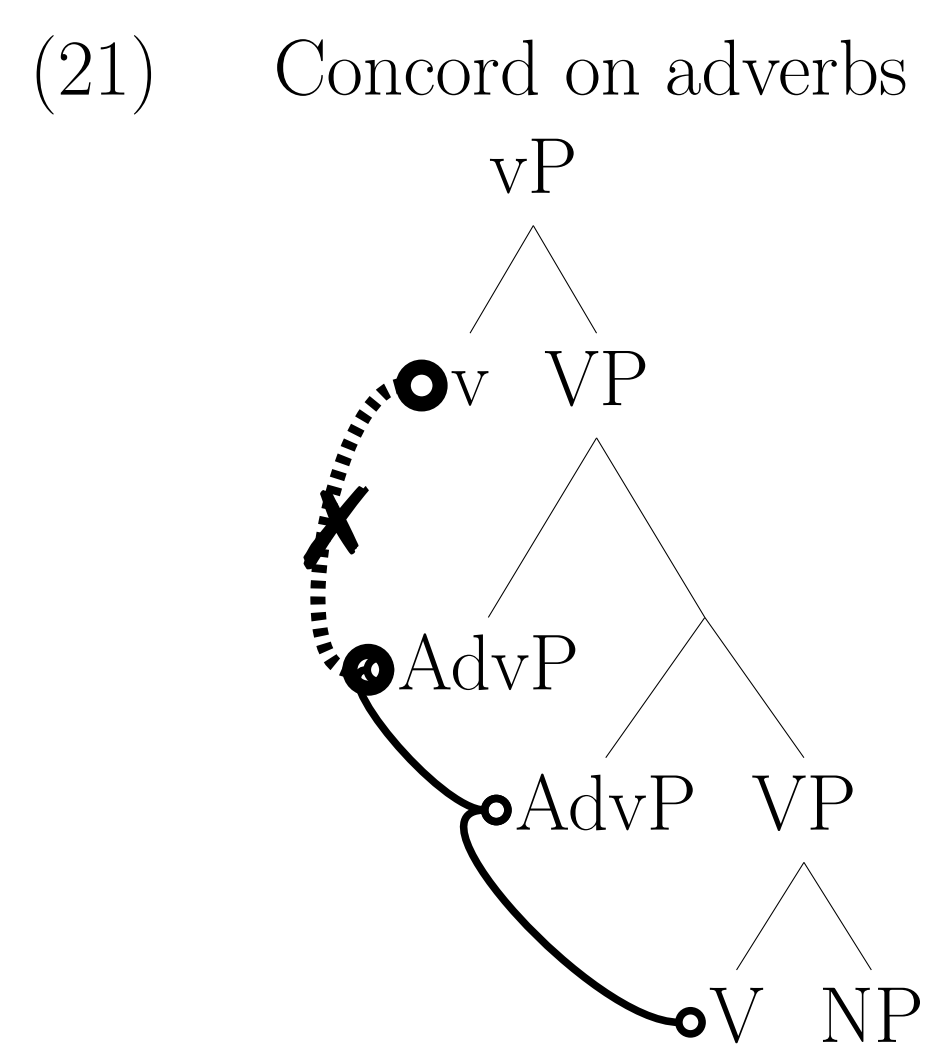
3. Assumptions: Serial Copying

- NP-over-DP structure with all modifiers as specifiers (Georgi & Müller, 2010)
Harmonic Serialism (McCarthy, 2010)/Extremely Local Optimization (Heck & Müller, 2007) with a local feature copy operation and general feature delete operation (cf. Breteler (2017)).
Feature cooccurrence constraints (Gazdar et al., 1985) and LEFT(γ,XP) as a trigger of concord.

- (5) Operations for nominal concord
a. COPY: A feature F with an index i on a head X is copied onto another adjacent head Y. This yields a feature F with an index i on head Y.
b. DELETE: A feature F with an index i on a head X is deleted from the head X. There is no feature F with an index i on head X anymore.
(6) Locality restriction on COPY (7) a. *γ/X: Count one violation for every head that bears a categorical feature X and a gender feature.
b. LEFT(γ,XP): The highest head in XP should bear a gender feature.

5. Extensions: Adverbs and beyond

- The account of the nominal concord can be extended to adverbial agreement.
Constraint against gender features on v and constraint requiring the highest head in the VP to bear gender features restrict agreement to lower adjectives.
Reranking of the constraints MAX(γ) and *γ/N yields a Bantu-like noun class pattern.
Other possible rankings predict i.a. no concord or full concord.



4. Analysis

- The local copy operation combined with serial evaluation allows for an iterative, bounded concord process, potentially including intermediate feature hosts.
The high ranked *γ/D constraint bounds the copy operation inside the NP.

(8) Bounded Copying tree diagram for NP with DP/D (čeh), PtcpP (hiba, t:u), and N (adam).
(9) Derivation of (1) - 1 table showing constraint rankings for NP PtcpP NIV.
(10) Derivation of (1) - 2 table showing constraint rankings for NP PtcpP IV NIV.
(11) Derivation of (1) - 3 table showing constraint rankings for NP DP [PtcpP IV N].

- Merge adds a new highest head to the NP, allowing LEFT(γ,NP) to trigger copying iteratively.

(12) Iterative copying tree diagram for NP with DP (empty), DemP (to), NumP (ɬej), and PtcpP (do:ʒ, zu).
(13) Derivation of (2) - 1 table showing constraint rankings for NP Ptcp NIII.
(14) Derivation of (2) - 3 table showing constraint rankings for NP NumP [Ptcp III N].
(15) Derivation of (2) - 4 table showing constraint rankings for NP DemP [NumP III [Ptcp III N]].

- Ranking *γ/NP below this constraint, allows for nominal adjectives to serve as intermediate hosts with their features deleted only after it has been copied to a higher position.

(16) Intermediate hosts tree diagram for NPj with DP (empty), PtcpP (ɬ:wak, du), NPi (maʃarul), and Nj (duʒriqʃ).
(17) Derivation of (3) - 1 table showing constraint rankings for NP NP NIV.
(18) Derivation of (3) - 2 table showing constraint rankings for NP NP IV NIV.
(19) Derivation of (3) - 3 table showing constraint rankings for NP Ptcp [NP IV N].
(20) Derivation of (3) - 4 table showing constraint rankings for NP Ptcp IV [NP IV N].

6. Discussion: Alternative Approaches

- The operation-based account in Polinsky (2016) needs a non-local unrestricted operation and thus massively overgenerates. Copying is iterative and disregards barriers (Polinsky, 2016, 229-230).
A global constraint based account has the sour grapes property and problems with gapped structures. Opaque interaction is not possible (McCarthy, 2009).
In contrast, the present account employs a local, iterative copy operation, bounded by feature cooccurrence constraint.
It uses serial evaluation and counterbleeding interaction to solve the problems mentioned above.

References

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