

CAN CLOSEST CONJUNCT AGREEMENT BE DERIVED IN THE SYNTAX PROPER?

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Based on the EMSS project, funded by the Leverhulme Trust
#emssproject

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OVERVIEW OF THE TALK

- Closest-Conjunct Agreement (CCA) in South Slavic: Experimental Evidence
- Modeling the basic patterns (closest-conjunct agreement and highest conjunct agreement)
- Distributed vs purely syntactic approaches to CCA
- Further constraining the theory: sandwiched agreement (two probes, one on each side)

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IS THE MAN WHO IS TALL HAPPY?

- Chomsky 1975: Syntax refers to hierarchical, not linear order; when it comes to auxiliary movement; learners prefer hierarchically-based generalisations
- Corbett 1983: South Slavic languages show cases of agreement based on linear order: when two noun-phrases are conjoined, the verb can sometimes agree with the linearly closest one
- Bock & Miller 1991: English speakers show cases of agreement based on linear order; called 'attraction', with the plural complement of noun phrases (e.g. *the key to the cabinets are*)
- How experimentally robust is linear conjunct agreement in South Slavic morphosyntax? Is it distinct from attraction?

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METHODOLOGY: ELICITED PRODUCTION

Participant sees model sentence

Prevod je ovjeren pečatom.
translation.M.SG. AUX.SG authenticated.M.SG. by.seal

Participant sees replacement noun phrase (&P) displayed onscreen

Molbe i rješenja
requests.F.PL. and decisions.N.PL.

Participant produces new sentence aloud and then clicks mouse

Molbe i rješenja su ovjeren-*il*-*a*-*e* pečatom
requests.F.PL. and decisions.N.PL. AUX.PL

Responses recorded, classified, tabulated

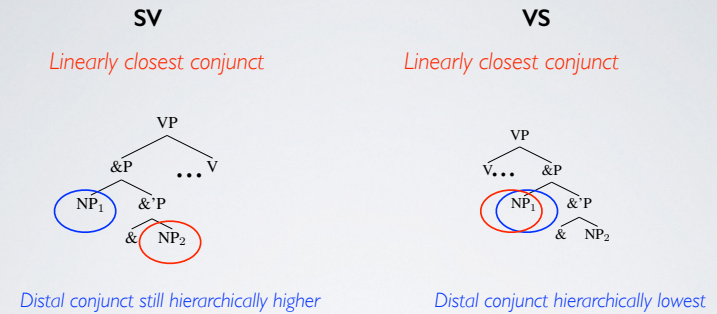
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METHODS AND MATERIALS

- Nine &P combinations of two genders; 6 items per condition
- All NPs inanimate and plural; dependent variable = gender agreement on participle
- 54 distractor items (18 RCs, 18 QNPs, 18 epicene nouns)
- Exp 1a: SV configurations (preverbal subjects), n=30 * 6 sites
- Exp 1b: VS configurations (postverbal subjects), n=30 * 6 sites
- Design and methodology identical across sites with local adaptation of vocabulary and morphosyntax
- Participants 18-22, not linguistics students; native speakers who grew up in region tested

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GIVEN A HIERARCHICAL &P



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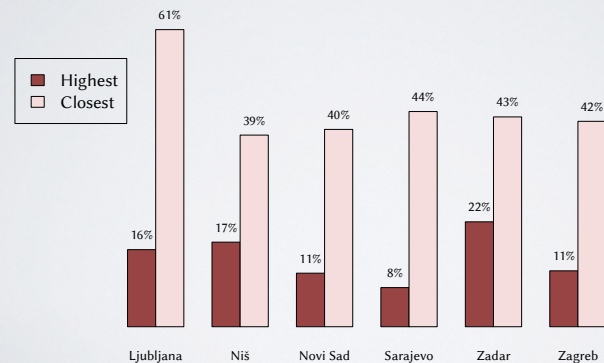
CHOOSING THE AGREEMENT STRATEGY

- The 'default' or 'resolution' value for conjuncts with mixed genders is masculine
- When a &P has M+F, N+M, etc, and we see masculine agreement, we can't tell if it's default agreement or closest-conjunct agreement
- However, in the combinations N+F and F+N, there are three distinct options: first-conjunct agreement (hierarchical), closest-conjunct agreement (linear), and default agreement (resolution/prescriptive)
- (In VS contexts, the first-conjunct is the closest conjunct)

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LINEAR AGREEMENT IS ROBUST GIVEN &PS (FN/NF)

Results for SV condition (where first and closer diverge)



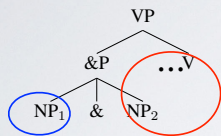
Willer-Gold et al (in prep)

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IF &PS WERE FLAT...

SV

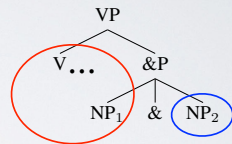
Linearly closest conjunct preferred



Distal conjunct "three nodes away"

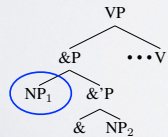
VS

Linearly closest conjunct preferred

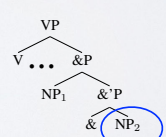


Distal conjunct "three nodes away"

BUT IF HIERARCHICAL...



Distal conjunct still hierarchically higher

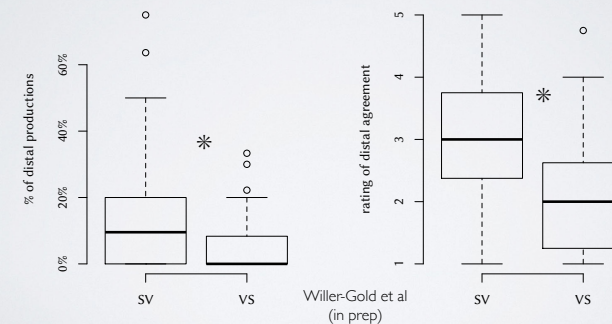


Distal conjunct hierarchically lowest

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&PS AREN'T JUST FLAT: DISTAL CONJUNCT AGREEMENT

If &Ps were just flat, then the distal conjunct in both SV and VS conditions should be equally produced/judged



&Ps have internal hierarchical structure

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SO WHERE CAN LINEARITY TRUMP HIERARCHY?

- In one principled corner of the grammar, in one small corner of the world
- An intense research focus is how to model the variability in agreement strategies within a restricted model of possibilities (Boskovic 2009, Puskar & Murphy 2014, Marusic et al 2007/2015)
- These can be grouped into **purely syntactic** approaches to CCA versus **distributed** approaches to CCA

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THEORIES OF CONJUNCT AGREEMENT: MARUSIC ET AL (2007/2015)

- Key idea: ConjP doesn't have its own gender
- Two-step Agree: Agree-Link vs Agree-Copy
- A Probe may establish a relation with a Goal (e.g. Pesetsky & Torrego 2007), but the actual copying takes place post-syntactically (see also Bhatt & Walkow 2013)
- Participles enact Agree-Link with ConjP, but depending on how and when Agree-Copy takes place, different parts of ConjP may be targeted

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MARUSIC ET AL (2007/2015): AGREE-COPY CHOICE

- ConjP has its own Number, but not its own Gender
- Speakers who wish to avoid *default* Gender must therefore open up the lid on the ConjP and choose one of the individual conjuncts during Agree-Copy
- Key idea: linearization is post-syntactic
- If Agree-Copy happens before linearization, HCA results
- If Agree-Copy happens after linearization, CCA results
- (There is no way to choose a medial conjunct if there are 3)

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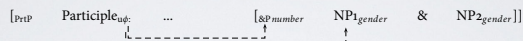
BHATT & WALKOW 2013: DISTRIBUTED AGREEMENT

- In Hindi/Urdu, while conjoined subjects show resolved agreement, conjoined objects show CCA
- Agreement must be partly syntactic to account for the subject/object asymmetry
- Idea: when object phi-features are not accessible within the syntax, PF mechanisms step in to furnish agreement, and these, being post-syntactic, may be sensitive to linear order

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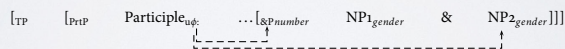
THEORIES OF CONJUNCT AGREEMENT: BOSKOVIC (2009)

Multiple Agree



if Probe has EPP: Pied-Piping ambiguity; can't move either

Solution: do Agree again, this time with NP2:



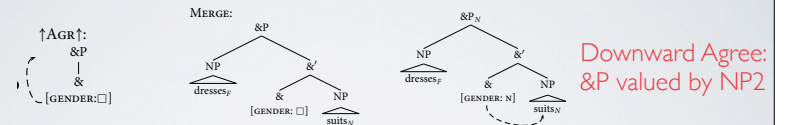
This time, only &P can move; yielding preverbal CCA

- Disadvantage: predicts preverbal HCA to be impossible, counter to fact
- (In addition, for 3-conjuncts, predicts medial conjunct agreement...)

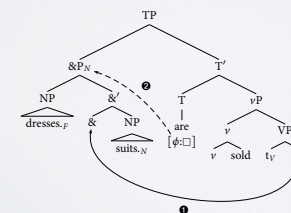
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PUSKAR & MURPHY 2015: DERIVING CCA SYNTACTICALLY

(MOVE) > ↑AGR↑ > MERGE > ↓AGR↓



Uniform order of operations within a derivation:



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EVALUATING PUSKAR & MURPHY (2015)

- Correctly Rules in Preverbal HCA & Rules out Postverbal DCA
- Even rules out impossibility of Medial Conjunct Agreement in 3-conjunct coordinations
- **Disadvantage:** as all the action is internal to &P, faces difficulty when different agreement targets pick different parts of the conjunction...

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SANDWICHED AGREEMENT

When agreement can be with different parts of &P

Ich dink de-s [toow en Marie] kump. (Dutch)
I think that-3SG youSG and Marie comePT
'I think that you and Marie will come.'
(Haegeman & van Koppen 2012)

Complementizer shows *CCA*; main verb shows *resolved* agreement

Včeraj so bile [krave in teleta] prodana.
yesterday aux been_{PL} [cow_{PL} and calf_{PL}] sold_{PL}
'Yesterday cows and calves were sold.'

Leftward participle shows *CCA with NP1*;

Rightward participle shows *CCA with NP2*

[Skupaj ležeča [vabila in reklame]] so pristale v smeteh
[together lying.N [invites.N and adverts.F]] aux.p landed.F in trash

DP-internal adjective shows *CCA with NP1*; participle shows *CCA with NP2*

**Such examples challenge models in which
all CCA is computed internally to the &P**

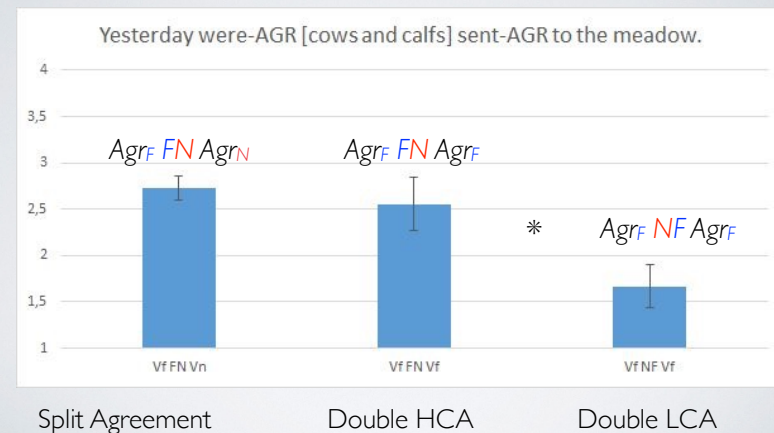
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EXPERIMENTAL DESIGN: SANDWICHING & DEPENDENT VARIABLES

- PARTICIP1 [C1 & C2] PARTICIP2
- **Split Agreement:** Participle 1 agrees with C1 and Participle 2 agrees with C2
- **Double HCA:** Both participles agree with C1
- **Double LCA:** Both participles agree with C2

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RESULTS: SANDWICHING OK, AND SO IS DOUBLE HCA



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THIS LATTER ASYMMETRY IS EASY FOR MARUSIC ET.AL

- Agree-Copy After Linearization Yields Split Agreement
- Agree-Copy Before Linearization Yields Double HCA
- Lack of Agree-Copy Yields Double Default
- There is no way in our theory to get Double DCA

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PURELY SYNTACTIC THEORIES FOUNDER ON SANDWICHING

- Split agreement is already a problem necessitating revisions
- But even given those, there is no obvious syntactic way to rule in Double HCA while ruling out Double DCA
- Feature deactivation (with multiple cycles of Agree) would help rule in Double HCA, but would then rule out Double Default

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THREE FUTURE EMPIRICAL PATHS WE'LL INVESTIGATE

- The Marusic et al 2015 model predicts masculine agreement to be freely available in split agreement cases (e.g. CCA on one side and default on the other). This is worth testing; it may be that we overgenerate.
- We've shown two ways of sandwiching; are there different results for the DP-internal adjective cases? Is concord inherently different (cf. Norris 2014)
- Slovenian already has more CCA than BCS without sandwiching; we should test the relative amount of double HCA vs split agreement in BCS

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OVERALL CONCLUSIONS

- Closest-conjunct agreement is the result of external Probes that can access individual parts of the ConjP
- We've proposed three (and only three) strategies, based on Agree-Copy: No Agree-Copy yields default, prelinearization Agree-Copy yields HCA; postlinearization Agree-Copy yields CCA
- The real kicker comes with sandwiched agreement, which vindicates the possibility of double CCA (different results on each probe) and double HCA, which are not easily derivable in purely syntactic approaches

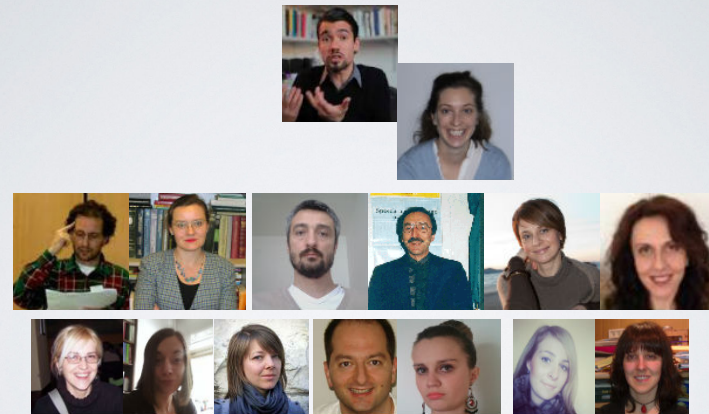
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THANK YOU!



THE EMSS Team

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