Perspectival possessor agreement in Finnish spatial PPs

We present novel experimental evidence from possessor agreement in Finnish spatial PPs showing that (spatial) perspective-holding is syntactically and morphologically realized. **Background**: In Finnish, possession is represented by (optionally pro-dropped) possessive pronouns ("POSSRs") with possessive-suffixes ("Pxs") that index the person & number of the POSSR (1). In spatial PPs (2), the POSSR *sinun* surfaces prenominally with the 2SG Px *si* being suffixed on spatial P:

(1) $\min_{my} \text{kirja-ni}/\text{hänen}$ kirja-nsa (2) $(sinun_i)$ takana- (si_i) olevaan puuhun. my book-PX.1SG/{his/her} book-PX.3SG 'My book.'/'His/her book' 'behind of you being tree' (\approx tree behind you)

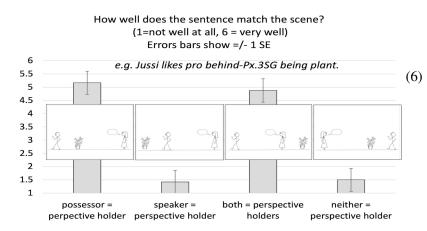
A silent 3rd-person POSSR typically corefers with the local subject. Crucial to our analysis is the novel observation that Finnish POSSR constructions must invariably track the spatial perspective of the POSSR, or more precisely, what POSSR itself refers to. E.g. in (3), the houseplant must be behind Jussi wrt. Jussi's spatial perspective (denoted by POSSR) & is inconsistent with a situation where the plant is behind Jussi from the speaker's spatial perspective (cf. (4a) vs. (4b)):

(3) Jussii pitää proi takana- $an_{\{i,*j\}}$ Jussi.NOM likes pro behind-PX.3SG olevasta huonekasvista. being.ELA houseplant.ELA 'Jussii likes the houseplant behind him_{i/*i}.' (4) a. \checkmark Perspective \rightarrow pro/Jussi b. \checkmark Perspective \rightarrow speaker:



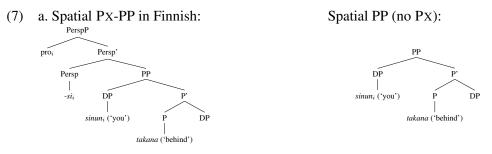
Experiment: To test these intuitions experimentally, native Finnish speakers rated how well sentences like (3) match different perspectival configurations (data collection ongoing; 12 participants so far, 8 targets, 12 fillers, Latin Square) on a 6-point scale (1=not at all, 6=very well). **Clear results:** participants interpret sentences like (3) as matching images like (4a), (POSSR spatial perspective-holder; average 5.17 out of 6) significantly better than images like (4b) (speaker spatial perspective holder; average 1.42 out of 6, t = 12.3, p < 0.001). To ensure people understood the task, we included control images where the sentence matches or mismatches the scene regardless of who the perspective-holder is ('both,' 'neither' conditions respectively). The unavailability of the speaker as the spatial perspective-holder is confirmed by it being rated equally as bad as the 'neither' condition (t = 0.51, p> 0.6) (5). These preliminary results strongly indicate that the spatial PP tracks the perspective of the POSSR. As expected, when POSSR and PX are both silent, the identity of POSSR is un(der)specified and native speakers find the resulting proposition vague (6):

(5)



takana oleva huonekasvi behind be.PTC.NOM houseplant.NOM 'houseplant behind some{one/thing}'. **Questions:** What is the structure of (2) & how does this capture the fact that spatial perspective must be anchored to the POSSR, unlike e.g. in English? What is the role, if any, of the accompanying PX?

Proposal: A spatial PP containing a perspectival anaphor must reflect the spatial perspective of this anaphor, or more precisely, its antecedent (Kuno, 1987; Sells, 1987; Rooryck and Vanden Wyngaerd, 2011; Sundaresan and Pearson, 2014, a.o.). Given that Finnish spatial PPs invariably reflect the spatial perspective of (the antecedent of) POSSR, we analyze POSSR as a perspectival anaphor (unsurprisingly, *hän* can be used logophorically in FID, Kaiser, 2018). Following Sundaresan (2018); Charnavel (2019) this means that POSSR must be bound by a perspectival *pro* merged as the specifier of a c-commanding Persp head, with the *pro* itself refers to a salient perspective-holder wrt. the spatial PP. We propose that POSSR occupies Spec, PP and that Persp encodes the immediately higher head on the prepositional spine. The Finnish PX, we propose, occupies the head immediately above POSSR and is a ϕ -probe that Agrees with POSSR – – a choice that is compatible with PX being an agreement-marker (cf. Anderson, 2005, 235-239), a (ϕ -probing) anaphor (e.g. Trosterud, 1993) or a hybrid of both (Toivonen, 2000). Note, crucially, that this means that PX, at least in these spatial PPs, expones the Persp head. Subsequent operations (e.g. head movement) derive the suffixal surface position of PX on P. The resulting structure is as given in (7a).



Implications: POSSR-PX ϕ -matching (cf. (1)) is derived as a classic case of possessor ϕ -agreement. When POSSR is 3rd-person, the clausal subject typically denotes the most salient perspective-holder: the speaker, though also salient, is dispreferred, being 1SG. This explains not only the subject-POSSR coreference in (3) (the obligatory nullness of POSSR here is orthogonal) but also why spatial perspective must track POSSR (cf. (4a)), not the speaker (4b). **Empirical predictions:** In structures that are independently incompatible with Persp (exponed by PX), PX should be absent. This happens when POSSR is a pronoun/R-expression, since these cannot be bound by *pro* in Spec, PerspP (Conditions B/C), or inanimate (animacy is a prerequisite for perspective-holding Charnavel, 2019; Sundaresan and Pearson, 2014). These predictions are met:

- (8) Minä_i törmäsin lapsen_j/sen_i takana-(*an_{i,j}) olevaan puuhun. I.NOM crashed child.GEN/it.GEN behind-PX.3 being.ILL tree.ILL Intended: 'I crashed into the tree behind it/the child.'
- (9) Auto_i törmäsi pro_i takana-(*an_i) olevaan puuhun. car.NOM crashed pro behind-PX3 being.ILL tree.ILL Intended: 'The car_i crashed/bumped into the tree behind it_i.'

As indicated, all three POSSR's are licit without the added PX suggesting that this variant involves a truncated structure without a PerspP (7b). As expected, the spatial perspective of the truncated PP is underspecified & not obligatorily tied to POSSR. We propose the same structure for cases where both POSSR and PX are absent (6): since POSSR is absent, we correctly predict that these must be construed as being especially vague.

Selected References: Charnavel, Isabelle. 2019. Locality and logophoricity: a theory of exempt anaphora. Oxford Studies in Comparative Syntax. Oxford: OUP. • Kaiser, Elsi. 2018. Effects of perspective-taking on pronominal reference to humans and animals: Logophoricity in Finnish. Open Linguistics 4:630–656. • Sundaresan, Sandhya. 2018. Perspective is syntactic: evidence from anaphora. Glossa: A Journal of General Linguistics 128:1.• Sundaresan, Sandhya, and Hazel Pearson. 2014. Formalizing linguistic perspective: insights from spatial anaphora. • Toivonen, Ida. 2000. The morphosyntax of Finnish possessives. *NLLT* 18:579–609. • Trosterud, Trond. 1993. Anaphors and binding domains in Finnish. In Case and other functional categories in Finnish syntax, eds. Anders Holmberg and Urpo Nikanne, 225–243. New York: Mouton de Gruyter.