A Novel Account of Mixed Concord: The View from Punjabi Honorifics

Gurmeet Kaur and Yash Sinha

1. Introduction

Mixed concord is the phenomenon where different modifiers in a single DP express different values of the same feature. A well-known example comes from the Hebrew noun *be'alim* 'owner', which is morphologically plural but has singular reference. The noun can trigger mixed concord: plural on the adjective 'private', but singular on the adjective 'last', as shown in (1).

(1) be'alim ha-pratiyim ha-axaron sel ha-tmuna haya ha-psixo'analitika'i [...]
the-owner the-private.PL the-last.SG of the-painting was.3SG the-psychoanalyst
'The last private owner of the painting was the psychoanalyst.' (Landau 2016:1005)

Mainstream approaches to mixed concord (e.g. Landau 2016, Norris 2014, Pesetsky 2013) generally agree that mixed concord configurations result from the partitioning of the nominal domain into two agreement zones via a functional head (say F), which introduces a feature value distinct from the head noun's. Modifiers that merge below F show concord with the head noun while those above F show concord with F, resulting in mixed concord. In this paper, we present an instance of mixed concord from Punjabi, which, despite initial appearances, is not amenable to such an analysis. Honorific nouns in the language allow for mixed number concord (singular or plural), see (2a). However, the possibility of mixed concord is limited to feminines: masculine honorifics exclusively show plural concord, as shown in (2b).

(2) a. mere vəɖɖi massi aye
my.MPL older.FSG aunt came.MPL
'My older aunt (honorific) came.'

b. mere vəɖɖe/*vəɖɖa masəɽ aye
my.MPL older.MPL/*older.MSG uncle came.MPL
'My older uncle (honorific) came.'

While accounts that vary the structural position of modifiers with respect to F can explain mixed concord with feminine honorifics, they cannot explain why masculines do not behave analogously. Therefore, we propose an alternative analysis which derives mixed concord by varying the search domain of probes associated with the modifiers (i.e. how far in the DP the probe searches). The key idea is that the PL feature in an honorific DP is deeply embedded. Plural concord with an honorific arises when the probe searches through the entire DP, while singular concord arises when its search domain is restricted. The gender asymmetry arises because the FEM feature of feminines can restrict the search domain of a probe. We model this restriction using the Interaction and Satisfaction framework of Agree (Deal 2015, 2023).

* Gurmeet Kaur, University of Göttingen, gurmeet.kaur@uni-goettingen.de. Yash Sinha, MIT, yashs@mit.edu. We thank Rajesh Bhatt, Hedde Zeijlstra, Adam Albright, Athulya Aravind and David Pesetsky for discussion of this work. We are also grateful to our audience at the OS English Linguistics, Goettingen (November 2023), CHAMP2 (Goettingen, February 2023) and FASAL14, Stony Brook (April 2024) for their helpful comments. This research was carried out in part under the *Addressee in syntax* project, funded by the DFG (grant no. ZE 1040/11-1).

© 2025 Gurmeet Kaur and Yash Sinha. Proceedings of the 42nd West Coast Conference on Formal Linguistics, ed. Shweta Akolkar et al., 182-191. Somerville, MA: Cascadilla Proceedings Project.

2. Concord with honorific nouns in Punjabi

Languages often use plural morphology to convey honorificity. We refer to such constructions as plurals-of-politeness or PoPs. A well known example comes from French, which uses its 2nd person plural pronoun *vous* to also refer to a singular honorific individual. Like French, Punjabi also has pronominal PoPs. In addition, the re-use of plural to indicate honorificity extends to nouns in Punjabi. As shown in (3), despite its singular morphology and singular reference, honorific nouns trigger plural agreement.

(3) a. massi aye
aunt came.MPL
'The aunt (honorific) came.'

b. masəɽ aye
uncle came.MPL
'The uncle (honorific) came.'

We take the plural agreement of honorific nouns in Punjabi as evidence that they carry a PL feature, and therefore treat them as PoPs too. The number inflection on a subset of these nouns is more complicated (see Kaur (2023, 2025) and Sinha (to appear)). We set this complication aside for this talk.

Turning to concord, adnominals in Punjabi show concord with the head noun in number and gender. This is shown for regular (i.e., non-honorific) nouns below.

(4) a. ikk syana munɖa aya
one intelligent.MSG boy came.MSG
'An intelligent boy came.'

b. do syane munɖe aye
two intelligent.MPL boy.PL came.MPL
'Two intelligent boys came.'

(5) a. ikk syani kuɽi ayi
one intelligent.FSG girl came.FSG
'An intelligent girl came.'

b. do syaniã kuɽiã ayiã
two intelligent.FPL girl.PL came.FPL
'Two intelligent girls came.'

With PoPs, concord works differently for masculines and feminines. We focus first on feminines. Feminine PoPs can trigger both singular or plural concord, as shown in (6). Note that feminine PoPs do not trigger *feminine* plural agreement, but rather *masculine* plural agreement (Kaur & Yamada 2022). In the interest of space, we set this gender mismatch aside, and limit ourselves to number agreement.

(6) mere/meri massi aye
my.MPL/my.FSG aunt came.MPL
'My aunt (honorific) came.'

Although feminine PoPs can trigger either singular or plural concord, mixed concord is generally not possible. All adnominals typically either show uniformly singular or uniformly plural concord.

(7) mere pyare/meri pyari/*mere pyari/*meri pyare massi aye
my.MPL lovely.MPL/my.FSG lovely.FSG/my.MPL lovely.FSG/my.FSG lovely.MPL aunt came.MPL
'My lovely aunt (honorific) came.'

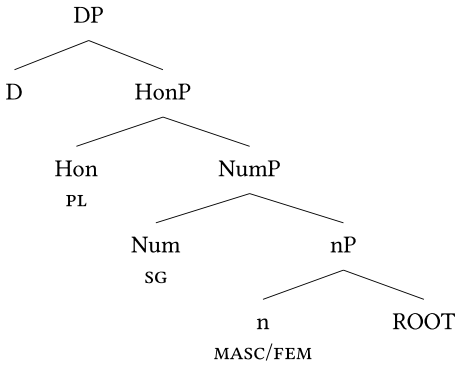
However, mixed concord is possible for some speakers with two low adjectives vəɖɖa and choʈʈa, which when used with kinship nouns, mean 'older' and 'younger' respectively. This is illustrated in (8), where vəɖɖa 'older' can occur with singular concord while the possessive occurs with plural concord. As (8) also shows, mismatches are tolerated in only one direction. Reversing the concord pattern results in ungrammaticality. We refer to this restriction as the *SG-over-PL constraint. Additionally, uniform concord is also possible with these adnominals, as indicated in (8).

(8) %mere vəɖɖi/*meri vəɖɖe/mere vəɖɖe/meri vəɖɖi massi aye
my.MPL older.FSG/my.FSG older.MPL/my.MPL older.MPL/my.FSG older.FSG aunt came.MPL
'My older aunt (honorific) came.'

Approaches that rely on the presence of a head (F) with conflicting feature values to create two agreement zones can account for (mixed) concord with feminine PoPs in Punjabi. A specific proposal put

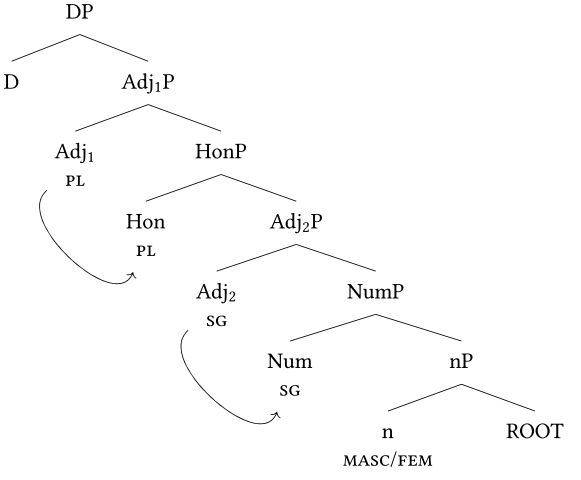
forth in Kaur (2023, 2025) and Sinha (2023) is as follows: nominal PoPs contain a honorific head (Hon), which hosts a PL feature, as opposed to the head noun, which hosts a SG feature. See (9).

(9)



Under this proposal, singular vs plural concord with feminine PoPs can be derived by merging the adnominals above or below Hon. Adnominals that merge above Hon value their number feature from Hon and show plural concord. By contrast, adnominals that merge below Hon obtain their features from the head noun and show singular concord. Uniform singular concord is derived when all adnominals merge below Hon, while uniform plural concord is derived when all adnominals merge above Hon. Under this proposal, it is also possible to have vəḍḍa and choṯṯa merge below Hon, with the remaining adominals merging above Hon, as shown in (10). This results in mixed concord. Moreover, the direction of the mismatch - SG on the lower adnominals and PL on the higher adnominals - follows from this structure. The ungrammatical *SG-over-PL pattern is correctly not generated. This proposal can therefore derive the concord patterns seen with feminine PoPs.

(10)



However, it runs into a problem with masculine PoPs. Unlike their feminine counterparts, masculine PoPs only allow plural concord. This is true for all adnominals, including vəḍḍa and choṯṯa.

(11) a. mere/*mera masəṯ aye
my.PL/my.MSG uncle came.PL
'My uncle (honorific) came.'

b. *mere vəḍḍa masəṯ aye
my.PL older.MSG uncle came.PL
'My older uncle (honorific) came.'

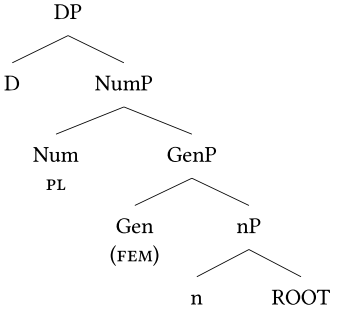
In principle, there is no reason why adnominals cannot merge below Hon with masculines when they can do so with feminines. So, the lack of singular concord is a challenge for accounts that rely on the position of the adnominal relative to Hon. We take this gender asymmetry as telling us that the FEM feature (found in feminines only) is crucial in (optionally) licensing singular concord. Building on this

insight, we propose a novel account of mixed concord with PoPs which relies on varying the search domain of a probe to explain the variation between singular and plural concord.

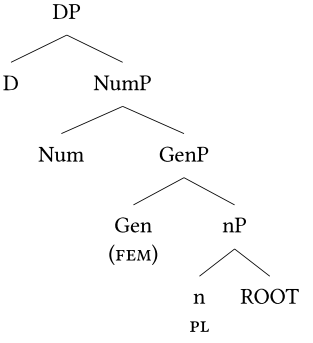
3. Our proposal

We adopt a privative feature system for gender and number in Punjabi, where: (i) the sole gender feature is FEM, and masculine is the absence of FEM, and (ii) the sole number feature is PL, and singular is the absence of PL (in line with Nevins 2011). We assume that the FEM feature (in feminines) is introduced on a Gen head, located right above n. In this, we depart from a common assumption in the literature which takes gender to be a feature on n itself (e.g. Kramer 2015, Lowenstamm 2008). We situate the PL feature found in a regular plural on the Num head, located above Gen. The structure for a regular plural DP is provided in (12a). PoPs are like regular plurals in having a PL feature. However, the PL feature is located on n, and not on the Num head, as shown in (12b). The absence of PL on Num can also explain the absence of plural affixes on honorific nouns under the assumption that nominal plural affixes realize Num-PL. The crucial aspect of this structure is that unlike in a regular plural, the PL feature in a PoP can be accessed by a higher probe only after the probe has encountered Gen.

(12) a.



b.



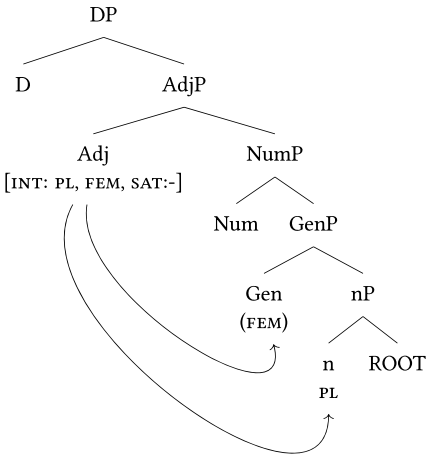
Singular and plural concord will be derived by varying whether the probe can access the low PL feature on n. Plural concord arises when this PL feature is accessed, while the optional singular concord seen with feminines arises when access to the low PL feature is blocked by the FEM feature.

To model this, we assume an Interaction-Satisfaction model of Agree (Deal 2015, 2023). In this model, probes are specified for interaction (INT) features and satisfaction (SAT) features. The INT features of the probe determine what features will be copied back to the probe, while its SAT features are those features that once encountered will cause it to stop further probing. In this framework, the probe's INT and SAT features need not be identical.

The INT features of the probe responsible for concord are PL and FEM, since concord is for number and gender. The SAT features of the probe can vary between SAT: - and SAT: FEM. For now, we make the simplifying assumption that each adnominal hosts its own probe, and its morphology reflects the features copied by this probe. This assumption will be revised in the next section. All adnominals merge above Num in the structure.

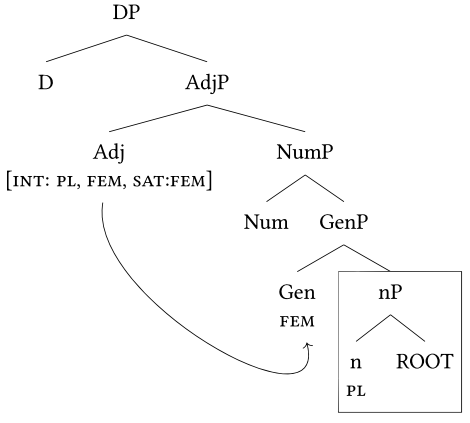
First, consider the case of SAT: -. This condition will give us plural concord, regardless of gender. This probe first encounters the gender features on the Gen head, and copies them. It then proceeds to the n head, where it copies the PL feature. This results in plural concord. Therefore, with the specification SAT: -, the presence/absence of FEM plays no role in whether PL is copied from n or not. So, we get plural concord for both masculine and feminine PoPs.

(13)

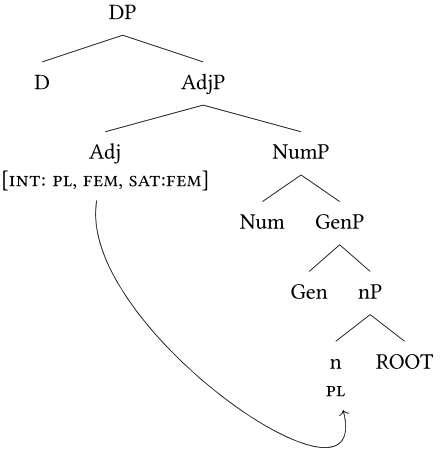


Next consider a probe specified as SAT: FEM. In a derivation with a feminine PoP, as shown in (14), such a probe encounters the FEM feature on Gen and stops probing since its satisfaction condition has been met. As the box in (14) indicates, the probe's search domain does not include the PL feature on n. This results in singular concord. In a derivation with a masculine PoP, as in (15), there is no FEM feature on Gen and the probe's satisfaction condition is not met. Probing continues further to n where PL is copied, giving plural concord.

(14)



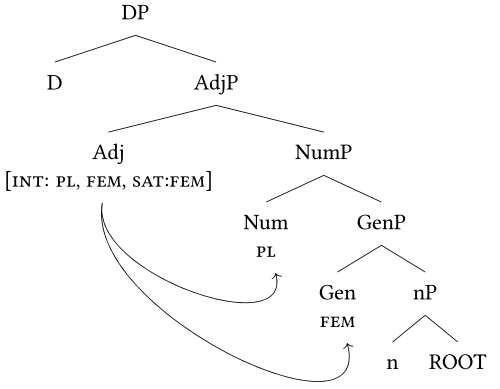
(15)



So, the same SAT condition that generates singular concord with feminine PoPs does not generate it for masculine PoPs, accounting for the gender asymmetry. SAT: FEM also does not incorrectly generate

singular concord with a regular feminine plural. This is because regular plurals *do* have a PL feature on Num. So, even when the FEM feature halts probing, the PL feature from Num still gets copied to the probe, giving us plural concord, as shown in (16).

(16)



In summary, our account based on the interaction-satisfaction model can derive the the basic number concord patterns seen with both feminine and masculine PoPs, as well as with non-PoP DPs. The next section extends this analysis to concord patterns seen with multiple adnominals.

4. Concord with multiple adnominals

In the previous subsection, we assumed that each adnominal has its own probe. For a structure with multiple adnominals, this assumption would mean that each adnominal is free to occur with singular or plural concord since each adnominal can be specified as SAT:FEM or SAT:-. However, this is an incorrect result - the occurrence of singular and plural concord on different adnominals within a DP is restricted. We now modify our account to derive these restrictions.

4.1. Deriving uniform concord

First, we have seen that generally, concord must be uniformly singular or uniformly plural. Mixing singular and plural concord is usually not possible.

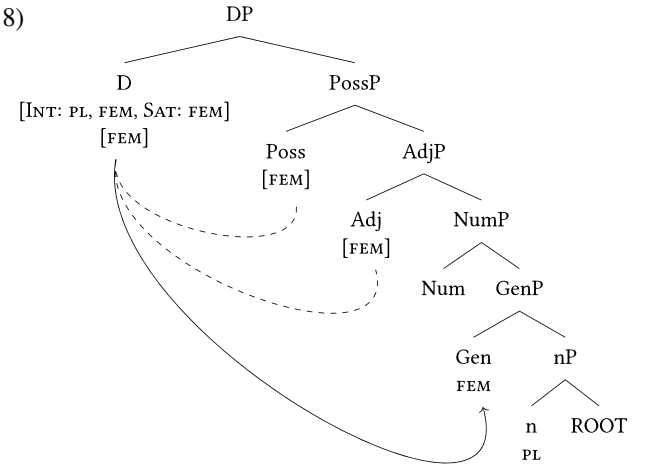
(17) mere pyare/meri pyari/*mere pyari/*meri pyare massi aye
my.MPL lovely.MPL/my.FSG lovely.FSG/my.MPL lovely.FSG/my.FSG lovely.MPL aunt came.MPL
'My lovely aunt (honorific) came.'

To account for this, we propose that adnominals do not merge with their own probes. Instead, there is generally only a single probe in the DP responsible for concord on all adnominals. We take this probe to be located on D. Following Norris (2012, 2014), we take concord to involve a syntactic and a postsyntactic component. In the syntax, the D head participates in Agree[1]. This Agree step takes place exactly as was discussed in the previous subsection, subject to the same interaction and satisfaction conditions mentioned there. Postsyntactically, the various adnominals that show concord trigger insertion of AGR nodes (following Noyer 1992). After the AGR node is inserted, the features from the closest head (here, D) dominating them are copied onto the AGR nodes by a Feature Copying rule (cf. Norris 2014).

Since all adnominals copy their features from the same locus postsyntactically (the D head), they necessarily show the same concord pattern as each other. A sample derivation for uniform singular concord on all adnominals is given in (18) - the regular line indicates syntactic Agree with D as the probe, and the dashed black lines indicate the postsyntactic step of Feature Copying from D to all adnominals.

[1] For Norris (2012), the head that participates in Agree is K and not D. Nothing crucial depends on this choice.

(18)



*4.2. Deriving mixed concord and the *SG-over-PL constraint*

As was noted earlier, the adjectives vəḍḍa 'older', choṭṭa 'younger' when used with kinship nouns can occur with mismatching number concord. The relevant example is repeated below in (19).

(19) %mere vəḍḍi massi aye
my.MPL older.FSG aunt came.MPL
'My older aunt (honorific) came.'

For mixed concord to obtain, it is crucial that the adjectives vəḍḍa 'older', choṭṭa 'younger' merge below all other adnominals in the structure. Consider the example in (20a), where vəḍḍa merges below not only the possessive but also other adjectives such as 'lovely' and shows singular concord while all other adnominals occur with plural concord. On the other hand, consider (20b), where vəḍḍa merges above the adjective 'lovely'[2]. In such cases, mixed concord becomes unavailable - it is not possible for vəḍḍa (and any lower adnominal) to show singular concord while the higher adnominal shows plural concord. Only uniform concord is possible with such an order, see (20c).

(20) a. mere pyare vəḍḍi massi aye
my.MPL lovely.MPL older.FSG aunt came.MPL
'My lovely older aunt (honorific) came.'

b. *mere vəḍḍi pyari massi aye
my.MPL older.FSG lovely.SG aunt came.MPL
'Intended: My lovely older aunt (honorific) came.'

c. mere vəḍḍe pyare massi aye
my.MPL older.MPL lovely.MPL aunt came.MPL
'My lovely older aunt (honorific) came.'

To account for the mixed concord seen with these adjectives, we propose that there is an additional probe in the DP located between D and Num. We remain agnostic about the exact head on which this probe is present and label it as X. Crucially, vəḍḍa 'older' and choṭṭa 'younger' merge below X, while all other adnominals merge above it. Given the Feature Copying rule, the features on vəḍḍa 'older' and choṭṭa 'younger' will reflect the features copied by X, while the ones on all other adnominals will reflect the features on D. Like the probe on D, the probe on X can also be specified as SAT: FEM or SAT: -. Recall that SAT: FEM leads to singular concord with feminine (but not masculine) PoPs, while SAT:- leads to plural concord with all PoPs.

[2] There is some variation in the acceptability of this order in that some speakers have a strong preference for merging vəḍḍa really close to the head noun. Crucially, even those speakers who allow vəḍḍa to merge higher, rule out mixed concord in such cases.

In principle, the system so far should allow all possible combinations of singular and plural concord on the two categories of adnominals with feminine PoPs. Three of these are in fact grammatical, as shown in Table 1. However, the fourth predicted pattern, i.e. the SG-over-PL pattern, is not possible, as in (21).

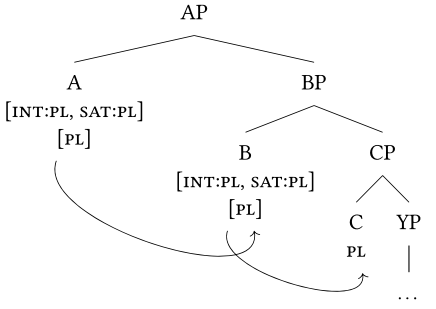
Table 1: Predicted mixed concord patterns

	Specification of D	Specification of X	Resulting concord in feminine PoPs
(i)	SAT: -	SAT: -	Uniform PL
(ii)	SAT: FEM	SAT: FEM	Uniform SG
(iii)	SAT: -	SAT: FEM	PL-over-SG
(iv)	SAT: FEM	SAT: -	*SG-over-PL

(21) *meri vəḍḍe massi aye
my.FSG older.MPL aunt came.MPL
'Intended: My older aunt (honorific) came.'

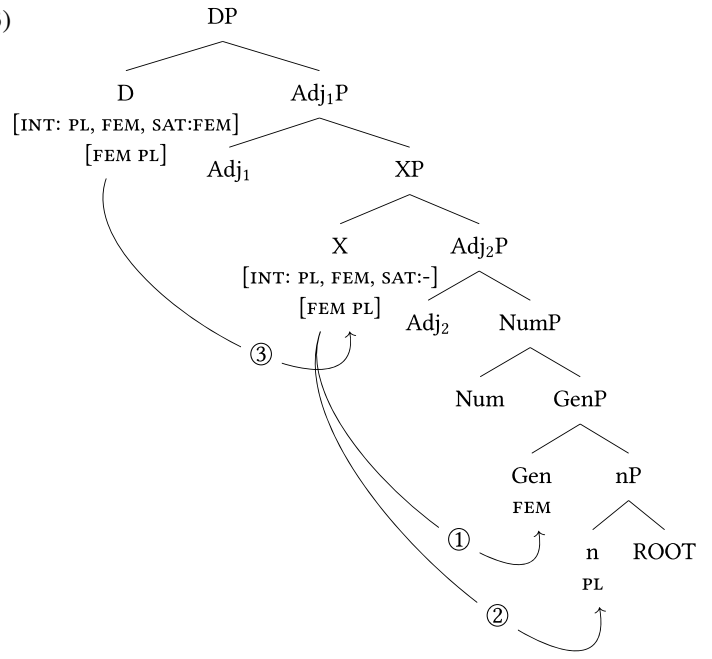
To derive the ungrammaticality of the SG-over-PL pattern, we add another piece to our assumed model of Agree. Following Puškar (2017, 2018), we claim that a probe that has acquired its features via Agree can then function as a goal for a higher probe. This is represented in (22) with a toy example.

(22)



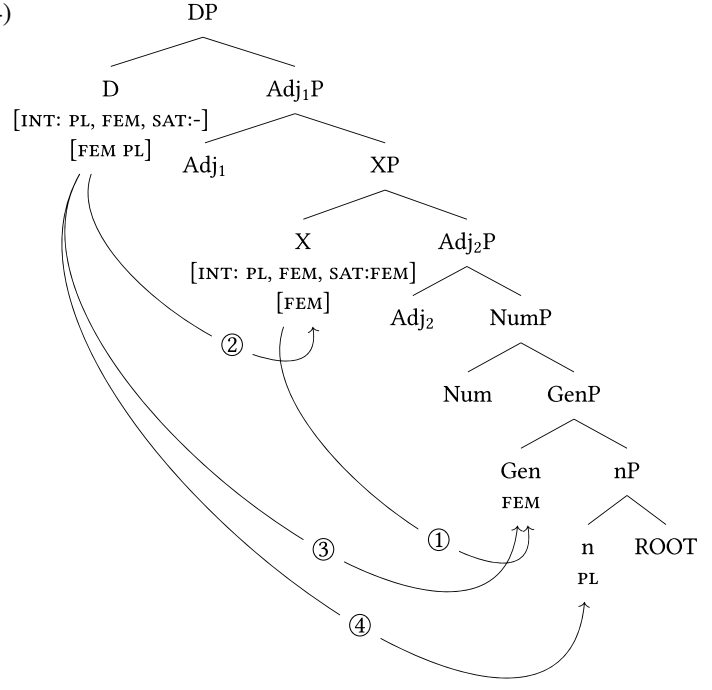
With this assumption, even with the combination of SAT conditions given in (iv) in Table (1), the illicit SG-over-PL concord pattern will not be derived. Once the lower probe X has copied the PL feature from n, D can itself copy this PL feature from X without needing to access n. Consider the derivation with a feminine PoP in (23), where X is specified as SAT:-, while D is specified as SAT:FEM. First, X probes all the way down to n since it is specified as SAT:-. It ends up with both FEM and PL, giving plural concord on the lower adnominal. When D probes, it first encounters the features on X. D is specified as SAT: FEM, which prevents it from probing beyond X since X already has FEM. But since X also has PL, D can copy it without accessing n. Adnominals associated with D also show plural concord. Thus, even the possible satisfaction conditions that we might have expected to generate the *SG-over-PL pattern do not do so. For ease of exposition, we have numbered the arrows to re-trace the instances of feature-copying onto the two probes in the following trees.

(23)



Our system also does not rule out the licit PL-over-SG concord pattern (in (iii) above), which is expected when X is specified as SAT: FEM and D is specified as SAT: -. Consider (24). X copies the FEM feature from Gen, but SAT: FEM ensures that PL from n is not copied. This yields singular concord on the lower adnominals. Then, when D probes, it copies FEM from X, but crucially, it is able to continue probing since it is specified as SAT: -. It ends up with the PL feature from n, resulting in plural concord on the higher adnominals. This derives the grammatical mixed concord pattern with PL-over-SG.

(24)



In summary, by positing an additional probe in the DP on X and allowing probes to act sequentially as goals, we have derived the grammatical uniform and mixed concord patterns seen with Punjabi feminine PoPs, while ruling out the ungrammatical *SG-over-PL one.

5. Conclusion

We presented an instance of gender asymmetry in number concord with nominal PoPs in Punjabi to argue that mixed concord obtains by varying the search domain of the probe, and not by varying the probe's structural position relative to a special functional head (say, Hon). To model said variation in the search domain of the probe, we used the Interaction-Satisfaction model of Agree. This model has has so far been used to derive various kinds of DP-external agreement (e.g. Baier 2018, Oxford 2022 among others), but our analysis shows that it is also applicable for DP-internal agreement/concord.

We have also proposed a structure for PoPs where the PL feature is located lower than the Gen and Num head, the loci of gender and semantic number features respectively. As such, the PL feature is less accessible to agreement probes. A fruitful avenue for future work is to investigate if our structure of PoPs and agreement mechanism can be extended to handle DP-external agreement with PoPs, which also varies between singular and plural agreement (Wechsler & Hahm 2011, Despić 2017, Puškar-Gallien 2019, among others), and is also subject to some of the constraints seen DP-internally like the *SG-over-PL constraint (Comrie 1975).

References

Baier, Nicholas Benson. 2018. *Anti-agreement*. University of California, Berkeley dissertation.

Comrie, Bernard. 1975. Polite plurals and predicate agreement. *Language* 51(2). 406–418.

Deal, Amy Rose. 2015. Interaction and satisfaction in phi-agreement. In *Proceedings of the 45th North East Linguistics Society*, 179–192. Amherst, MA: GLSA publications.

Deal, Amy Rose. 2023. Interaction, satisfaction, and the PCC. *Linguistic Inquiry* 55(1). 39–94.

Despić, Miloje. 2017. Investigations on mixed agreement: polite plurals, hybrid nouns and coordinate structures. *Morphology* 27. 253–310.

Kaur, Gurmeet. 2023. The morphosyntax of honorific nouns in Punjabi with a focus on the masculine-feminine asymmetry. Talk at CGG 32, University of the Basque Country.

Kaur, Gurmeet. 2025. Two phi-feature sets on honorific nouns. In *Proceedings of the 41st West Coast Conference on Formal Linguistics*, 292–299. MA: Cascadilla Proceedings Project.

Kaur, Gurmeet & Akitaka Yamada. 2022. Honorific (mis)matches in allocutive languages with a focus on Japanese. *Glossa* 44(1).

Kramer, Ruth. 2015. *The morphosyntax of gender*. Vol. 58. Oxford University Press.

Landau, Idan. 2016. DP-internal semantic agreement: a configurational analysis. *Natural Language & Linguistic Theory* 34(3). 975–1020.

Lowenstamm, Jean. 2008. On little n, $\sqrt{}$, and types of nouns. *Sounds of silence: Empty elements in syntax and phonology* 105. 144.

Nevins, Andrew. 2011. Multiple agree with clitics: person complementarity vs. omnivorous number. *Natural Language & Linguistic Theory* 29. 939–971.

Norris, Mark. 2012. Towards an analysis of concord (in Icelandic). In *Proceedings of the 29th West Coast Conference on Formal Linguistics*, 205–213.

Norris, Mark. 2014. *A theory of nominal concord*. UC Santa Cruz dissertation.

Noyer, Robert Rolf. 1992. *Features, positions and affixes in autonomous morphological structure*. Massachusetts Institute of Technology dissertation.

Oxford, Will. 2022. Probe specification and agreement variation: evidence from the Algonquian inverse. *Linguistic Inquiry*. 1–47.

Pesetsky, David. 2013. *Russian case morphology and the syntactic categories*. Vol. 66. MIT Press.

Puškar, Zorica. 2017. *Hybrid agreement: modelling variation, hierarchy effects and Ø-feature mismatches*. Universitätz Leipzig dissertation.

Puškar, Zorica. 2018. Interactions of gender and number agreement: evidence from Bosnian/Croatian/Serbian. *Syntax* 21(3). 275–318.

Puškar-Gallien, Zorica. 2019. Resolving polite conflicts in predicate agreement. *Glossa* 4(1). 1–25.

Sinha, Yash. 2023. Number morphology on honorific nouns. In *Proceedings of Formal Approaches to South Asian Languages 12*.

Sinha, Yash. to appear. Phi-concord in Punjabi singular honorific DPs. In *Proceedings of the 58th Chicago Linguistics Society*.

Wechsler, Stephen & Hyun-Jong Hahm. 2011. Polite plurals and adjective agreement. *Morphology* 21(2). 247–281.

Proceedings of the 42nd West Coast Conference on Formal Linguistics

edited by Shweta Akolkar,
Amber Galvano, Akil Ismael,
Kang Franco Liu, and Line Mikkelsen

Cascadilla Proceedings Project Somerville, MA 2025

Copyright information

Proceedings of the 42nd West Coast Conference on Formal Linguistics
© 2025 Cascadilla Proceedings Project, Somerville, MA. All rights reserved

ISBN 978-1-57473-484-3 hardback

A copyright notice for each paper is located at the bottom of the first page of the paper.
Reprints for course packs can be authorized by Cascadilla Proceedings Project.

Ordering information

Orders for the printed edition are handled by Cascadilla Press.
To place an order, go to www.lingref.com or contact:

Cascadilla Press, P.O. Box 440355, Somerville, MA 02144, USA
phone: 1-617-776-2370, fax: 1-617-776-2271, sales@cascadilla.com

Web access and citation information

This entire proceedings can also be viewed on the web at www.lingref.com. Each paper has a unique document # which can be added to citations to facilitate access. The document # should not replace the full citation.

This paper can be cited as:

Kaur, Gurmeet and Yash Sinha. 2025. A Novel Account of Mixed Concord: The View from Punjabi Honorifics. In *Proceedings of the 42nd West Coast Conference on Formal Linguistics*, ed. Shweta Akolkar et al., 182-191. Somerville, MA: Cascadilla Proceedings Project. www.lingref.com, document #3820.