Number morphology on honorific nouns

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ABSTRACT

Singular honorific nouns in Hindi, Punjabi and Marathi show interesting behavior with respect to number morphology. While they uniformly trigger plural agreement, we find that certain plural affixes occur on these nouns, but others do not. I propose a morphosyntactic analysis for this asymmetry. I argue that the two types of plural affixes realize different syntactic heads: the plural affixes that occur on singular honorific nouns realize n, while the others realize Num. Building on Bhatt & Davis (2021) and using a mechanism for feature copying within the nominal phrase, I propose a structure for singular honorific nouns that can capture this generalization.

1 Introduction

Languages often co-opt plural morphology to express honorificity of/politeness towards the referent of a pronoun. This phenomenon is most common in second person pronouns, as illustrated by the French example in (1), but it is also found in the third person in some languages like Persian (Ghomeshi & Massam 2020).

(1) Vous êtes   qui?
     2.PL be-2.PL who

     'Who are you (sg, polite)?' or 'Who are you (pl)?'

Western Indo-Aryan languages like Hindi, Punjabi and Marathi are interesting in this regard because this phenomenon is not just limited to pronouns, but is also found in nouns too. In (2)-(4), we can see that in all three languages, singular honorific nouns trigger plural agreement .

(2) mer-e   pɪta ay-e
     my-M.PL father come.PST-M.PL

     'My father (hon) came.'   Hindi

(3) mer-e   fʊffəɽ a-e
     my-M.PL uncle come.PST-M.PL

     'My uncle (hon) came.'   Punjabi

(4) majh-e   vaɖil al-e
     my-M.PL father come.PST-M.PL

     'My father (hon) came.'   Marathi

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The number morphology on these nouns with honorific singular reference (henceforth SG.HON nouns) however shows a puzzling asymmetry. Generally, plural affixes are disallowed with SG.HON nouns, despite the fact that they trigger plural agreement.[2]

(5) mer-i mã(#-ẽ)   ay-ĩ
     my-F mother(#-PL) come.PST-F.PL
     'My mother (hon) came.'   Hindi

(6) mer-e   masi(*-ã) a-e
     my-M.PL aunt(*-PL) come.PST-M.PL
     'My aunt (hon) came.'   Punjabi

(7) majh-ya aji(#-a)   al-ya
     my-F.PL grandmother(#-PL) come.PST-F.PL
     'My grandmother(hon) came.'   Marathi

However, not all plural affixes behave this way. All three languages under consideration have a class of masculine nouns ending in -a that form their plurals by changing the -a to -e. These nouns, when they are used with singular, honorific reference, always take the plural affix -e instead of the singular -a.

(8) ap=k-e   bhətij-e/*-a   ay-e
     you-GEN-M.PL nephew-PL/*-SG come.PST-M.PL
     'Your nephew (hon)/ nephews came.'   Hindi

(9) twaɖɖ-e   pə̀tij-e/*-a   a-e
     your-M.PL nephew-PL/*-SG come.PST-M.PL
     'Your nephew (hon)/ nephews came.'   Punjabi

(10) peʃw-e/*-a   al-e
     peshwa-PL/*-SG come.PST-M.PL
     'The Peshwa (hon)/Peshwas came.'   Marathi

This paper accounts for this asymmetry between the ability of different plural affixes to occur on SG.HON nouns. My account is framed within Distributed Morphology (Halle & Marantz 1993, 1994), a realizational theory of morphology in which morphology realizes the structures generated by the syntax.

The proposal is that the asymmetry between different plural affixes in these languages reflects an asymmetry in the syntactic heads realized by these affixes. More concretely, I claim that noun morphology in Hindi, Punjabi and Marathi realizes (at least) two syntactic heads – n and Num. The plural affix -e that occurs on SG.HON nouns realizes n, while the other plural affixes that do not occur on SG.HON nouns realize Num. Generally, the number

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[2]While all three languages show number mismatch with honorifics (i.e., plural agreement with singular honorifics), Hindi also has a person mismatch and Punjabi also has a gender mismatch. The 2nd person honorific pronoun in Hindi (*ap*) triggers 3.PL agreement, and feminine honorifics in Punjabi trigger MASC.PL agreement. I leave open the question of how the gender and person mismatch should be analyzed.

features on n and Num are identical, but in SG.HON nouns, these differ, allowing us to see the asymmetry between different plural affixes. Building on Bhatt & Davis's (2021) syntax for SG.HON nouns and using a mechanism to allow for feature copying within a nominal phrase, I propose an analysis in which n ends up with a plural feature with these nouns, but Num ends up with a singular one, explaining the pattern of asymmetry.

The rest of this paper is structured as follows. In the next section, I introduce the core data, providing the relevant noun inflection paradigms and demonstrating the existence of the asymmetry between different plural affixes. In section 3, I propose a syntactic generalization about which plural affixes are (in)compatible with SG.HON nouns. Section 4 presents an account of this generalization, and section 5 deals with some complications associated with Marathi oblique cases. Section 6 concludes.

2   Noun inflection in Hindi, Punjabi and Marathi

Nouns in all three languages inflect for number, gender and case. All three languages have two numbers – singular and plural. Hindi and Punjabi have two genders – masculine and feminine. Marathi has a neuter in addition to masculine and feminine, but since I have not found any neuter nouns that can be honorific, and since our main focus is SG.HON nouns, I do not discuss Marathi neuter nouns any further. The role of case in noun morphology needs further comment. All these languages have a 'direct' case that is used in a variety of contexts, including for subjects of non-perfective clauses and perfective clauses with intransitive verbs, and non-DOM objects. All other cases – the so-called 'oblique' cases – are typically expressed by means of a clitic (in Hindi and Punjabi) or affix (in Marathi). Two examples are in (11)-(12), with the case affixes/clitics bolded.

(11)   ghər   = **mẽ**
        house = **LOC**
        'In the house.'   Hindi

(12)   ghoḍya - **ca**
        horse   = **GEN**
        'Of the horse .'   Marathi

With this background in place, we can discuss the relevant inflectional paradigms and the behavior of SG.HON nouns in individual languages. Let us start with Hindi.

The Hindi noun inflection paradigm is provided in (13). I use ø to represent null affixes.

(13)   Hindi noun inflection paradigm

	MASCULINE class I	MASCULINE class II	FEMININE
DIRECT.SG	-a	-ø	-ø
DIRECT.PL	-e	-ø	-ã/ẽ
OBLIQUE.SG	-e	-ø	-ø
OBLIQUE.PL	-õ	-õ	-õ

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Masculine nouns can be divided into two declension classes – class I and class II. Class I masculine nouns end in -a and form their DIRECT.PL and OBLIQUE.SG by changing this -a to -e, and replacing this -a with -õ in the OBLIQUE.PL. Class II masculine nouns do not change in the DIRECT.PL and OBLIQUE.SG and add -õ in the OBLIQUE.PL. To see this concretely, I have provided paradigms for a class I masculine in (14), and a class II masculine in (15).

(14) Paradigm for class I masculine noun

DIRECT.SG	DIRECT.PL	OBLIQUE.SG	OBLIQUE.PL
ləʈk-a 'boy'	ləʈk-e	ləʈk-e	ləʈk-õ

(15) Paradigm for class II masculine noun

DIRECT.SG	DIRECT.PL	OBLIQUE.SG	OBLIQUE.PL
bagh-ø	bagh-ø	bagh-ø	bagh-õ

An important point to note is that not all -a ending masculine nouns are necessarily class I. (16) provides an example of an -a ending class II masculine, (pɪta) 'father'. We know that this noun is class II because it remains pɪta (not *pɪte) in the DIRECT.PL and OBLIQUE.SG, and it adds -õ instead of replacing it giving pɪtaõ (not *pɪtõ) in the OBLIQUE.PL.

(16) Paradigm for a-ending class II masculine noun

DIRECT.SG	DIRECT.PL	OBLIQUE.SG	OBLIQUE.PL
pɪta-ø	pɪta-ø	pɪta-ø	pɪta-õ

Feminine nouns behave straightforwardly. They do not change in the OBLIQUE.SG, and add -õ in the OBLIQUE.PL. In the DIRECT.PL, they add -ã or -ẽ. The choice between -ã and -ẽ is phonologically conditioned, with nouns ending in i taking the former affix and other nouns taking the latter affix. The final i becomes ɪy before affixes starting with a vowel by a regular phonological process in the language. Again for concreteness, the paradigms for two feminine nouns are provided in (17) and (18), one ending in i and another not ending in i.

(17) Paradigm for i-ending feminine

DIRECT.SG	DIRECT.PL	OBLIQUE.SG	OBLIQUE.PL
ləʈki-ø	ləʈkɪy-ã	ləʈki-ø	ləʈkɪy-õ

(18) Paradigm for non-i-ending feminine

DIRECT.SG	DIRECT.PL	OBLIQUE.SG	OBLIQUE.PL
ɔrət-ø	ɔrət-ẽ	ɔrət-ø	ɔrət-õ

Turning to the behavior of SG.HON nouns, plural affixes are generally disallowed with these nouns. We can see that this holds true for the OBLIQUE.PL affix -õ as in (19)-(20), regardless of gender, and for the FEM.PL affixes -ẽ and -ã in (21)-(22). In (21)-(22), we can also see that even though the noun itself does not show plural morphology, it still triggers plural agreement on account of it being honorific.

(19) əpn-e   pɪta(#-õ)   =ko   dekhɪye
      self.GEN-M.OBL father(#-OBLIQUE.PL) =DOM see.IMPER
      'Look at your father (hon/non-hon).'   Hindi

(20) əpn-i   mã(#-õ)   =ko   dekhɪye
      self.GEN-F mother(#-OBLIQUE.PL) =DOM see.IMPER
      'Look at your mother (hon/non-hon).'   Hindi

(21) mer-i mã(#-ẽ)   ay-ĩ̃
      my-F mother(#-DIRECT.PL) come.PST-F.PL
      'My mother (hon) came.'   Hindi

(22) ap=k-i   bhətiji(#-ã)   ay-ĩ̃
      you-GEN-F niece(#-DIRECT.PL) come.PST-F.PL
      'Your niece (hon) came.'   Hindi

For class II masculines, the DIRECT.SG and DIRECT.PL are syncretic, making it impossible for us to tell what morphology we see in the direct case. For class I masculines, where we do not have this syncretism, we surprisingly get the DIRECT.PL form with -e, and not the DIRECT.SG form with -a, as illustrated in (23).

(23) ap=k-e   bhətij-e/*-a   ay-e
      you-GEN-M.PL nephew-DIRECT.PL/*-DIRECT.SG come.PST-M.PL
      'Your nephew (hon)/ nephews came.'   Hindi

In this respect, the DIRECT.PL -e of class I masculines behaves differently from the oblique and feminine plural affixes -õ and -ã/-ẽ respectively. The class I masculine DIRECT.PL -e appears with SG.HON nouns, while the other plural affixes do not.

It is important to note that the exceptional behavior of class I masculine nouns is only limited to the direct case. In the oblique case, class I masculine SG.HON nouns cannot take the OBLIQUE.PL affix -õ, like all other nouns, and must appear in the singular. This is shown in (24).

(24) əpn-e   bhətij-e/#-õ   =ko   dekhɪye
      self.GEN-M.OBL nephew-OBLIQUE.SG/#-OBLIQUE.PL =DOM see.IMPER
      'Look at your nephew (hon/non-hon).'   Hindi

We can see that Punjabi also behaves the same way. The Punjabi paradigm is provided in (25), with an example of each type of noun.

(25) Punjabi noun inflection paradigm

	MASCULINE class I	MASCULINE class II	FEMININE
DIRECT.SG	mʊnɖ-a 'boy'	admi-ø 'man'	pɛ̀ŋ-ø 'sister'
DIRECT.PL	mʊnɖ-e	admi-ø	pɛ̀ŋ-ã
OBLIQUE.SG	mʊnɖ-e	admi-ø	pɛ̀ŋ-ø
OBLIQUE.PL	mʊnɖ-eã	admi-ã	pɛ̀ŋ-ã

Even though the phonological shape of some of the affixes is different from Hindi, SG.HON nouns show the same behaviors. Generally, the oblique and feminine plural affixes -eã/-ã do not occur on SG.HON nouns as shown in (26)-(27).

(26)   apɳ-e   pə̀tij-e/#-eã   =nu   vekho
      self.GEN-M.OBL newphew-OBLIQUE.SG/*-OBLIQUE.PL) =DOM see.IMPER
      'Look at your nephew (hon/non-hon).'   Punjabi

(27)   mer-e   masi(*-ã)   a-e
      my-M.PL aunt(*-DIRECT.PL) come.PST-M.PL
      'My aunt (hon) came.'   Punjabi

However, once again like Hindi, class I masculines in the direct case appear with the DIRECT.PL affix -e, as shown in (28).

(28)   twaɖɖ-e   pə̀tij-e/*-a   a-e
      your-M.PL nephew-DIRECT.PL/*-DIRECT.SG come.PST-M.PL
      'Your nephew (hon)/ nephews came.'   Punjabi

One confound for both Hindi and Punjabi is that the DIRECT.PL affix -e is syncretic with the OBLIQUE.SG affix for class I masculines. This syncretism has led Bhatt & Davis (2021) to claim for Hindi that all SG.HON nouns appear in the OBLIQUE.SG form, even if they occur in a syntactic context that warrants the direct case. With other nouns, the DIRECT.SG and OBLIQUE.SG forms are syncretic, and so they cannot be used to verify if SG.HONs genuinely trigger the 'wrong' case morphology or not. At the very least however, Bhatt & Davis' analysis does not make any incorrect predictions for them. This analysis therefore avoids positing any asymmetry between different plural affixes, though we have to stipulate that in addition to honorifics triggering the 'wrong' number agreement, they also appear with the 'wrong' case morphology. Though this analysis is able to capture the Hindi and Punjabi facts, we will see that it is falsified by Marathi, where there is no syncretism between the DIRECT.PL and OBLIQUE.SG, and yet we still find the asymmetry between different plural affixes.

     The noun inflection paradigm for Marathi is provided in (29), with an example of each type of noun. This paradigm has been constructed based on the description in Dhongde & Wali (2009), as well as native speaker judgements. This paradigm is not complete because Marathi has more than one declension class in the feminine too. However, all feminine plural affixes behave similarly, and therefore, for brevity, I use only one class of feminines as representative of all feminine nouns. Note that for the feminine noun *aji* 'grandmother', the final i becomes y before a vowel via a regular phonological process.

(29) Marathi noun inflection paradigm

	MASCULINE class I	MASCULINE class II	FEMININE
DIRECT.SG	peʃw-a 'peshwa'	vədil-ø 'father'	aji-ø 'grandmother'
DIRECT.PL	peʃw-e	vədil-ø	ajy-a
OBLIQUE.SG	peʃw-ya	vədil-a	aji-ø
OBLIQUE.PL	peʃw-yan	vədil-an	ajy-an

Let us consider the behavior of SG.HON nouns in Marathi. In this section, we will only focus on SG.HON nouns in the direct case, because their oblique case behavior is more complex and will be the subject of section 5. In the direct case, SG.HON feminine nouns in Marathi do not take their plural affix, as shown in (30). This is just like Hindi and Punjabi.

(30) majh-ya aji(#-a)   al-ya
    my-F.PL grandmother(#-DIRECT.PL) come.PST-F.PL
    'My grandmother(hon) came.'   Marathi

Again, like in Hindi and Punjabi, class I masculines take the DIRECT.PL affix -e and not the DIRECT.SG affix -a, as shown in (31).

(31) peʃw-e/*-a   al-e
    peshwa-DIRECT.PL/*-DIRECT.SG come.PST-M.PL
    'The Peshwa (hon)/Peshwas came.'   Marathi

Furthermore, as can be verified from (29), Marathi does not show the syncretism between the DIRECT.PL and the OBLIQUE.SG that is found in Hindi and Punjabi. Therefore, we can safely assume that the -e in (31) truly is the DIRECT.PL affix, and not the OBLIQUE.SG one. Bhatt & Davis' claim that honorifics are always oblique cannot account for the Marathi facts. Additional evidence that SG.HON nouns do not have to be in the oblique case comes from class II masculine nouns. (32) shows that in contexts that require the direct case, these nouns appear with the direct case affix -ø (syncretic for singular and plural), and not the OBLIQUE.SG -a or OBLIQUE.PL -an.

(32) majh-e vədil(*-a/*-an)   al-e
    my-M.PL father(*-OBLIQUE.SG/*-OBLIQUE.PL) come.PST-M.PL
    'My father (hon) came.'   Marathi

We can therefore rule out the hypothesis that SG.HON nouns must always appear in the oblique case. Having ruled out this analysis, we arrive at the conclusion that even though the feminine and the (Punjabi and Hindi) oblique plural affixes in these languages do not appear on SG.HON nouns, the DIRECT.PL -e of class I masculines does so. Now, our goal is to account for this pattern.

3 A syntactic generalization

In this section, I show that the class I masculine DIRECT.PL affix -e realizes a different syntactic head than the feminine and oblique plural affixes. The DIRECT.PL affix -e will be taken to realize an n head, while the other plural affixes will be taken to realize a Num head. This will allow us to restate the conclusion from the previous section in syntactic terms, using n and Num: plural affixes that realize n appear with SG.HON nouns, but plural affixes that realize Num do not.

Before considering this syntactic restatement, there is a more obvious (and perhaps less interesting) explanation for the differing behaviors of the plural affixes that needs to be ruled out. According to this null hypothesis, whether a plural affix occurs with SG.HON nouns is an idiosyncratic property of that affix, encoded into its feature specification. For concreteness, I provide a rough sketch of what this null hypothesis would look like.

We could, for example, say that there are two different kinds of 'plural' features – $PL_{semantic}$ that is only found with semantically plural nouns, and PL_{fake} that is found on both semantically plural and honorific nouns[3]. The feminine and oblique plural affixes are sensitive to $PL_{semantic}$, while the class I masculine DIRECT.PL -e is sensitive PL_{fake}. This would allow all types of plural affixes to occur with semantically plural nouns, but only the latter to occur with SG.HON nouns, explaining the data seen in section 2.

However, this analysis makes an incorrect prediction. Since tracking semantic plurality is a property of the feminine and oblique plural affixes themselves, we never expect to find these affixes associated with SG.HON nouns. I draw on some data from Marathi to show that this expectation is not met, making this null hypothesis untenable.

In Marathi, the feminine plural affix -a that occurs on feminine nouns is also found on adnominals and verbs that agree with any feminine plural noun. This can be seen by comparing the adjective and verb agreement in (33), where we have feminine singular agreement with a singular (non-honorific) feminine noun, with (34), where we have feminine plural agreement with a plural noun. The latter involves the addition of the affix -a after the general feminine affix -i, which becomes -y due to the phonological process mentioned above.

(33) mhatar-i aji   al-i
      old-F   grandmother come.PST-F
      'The old grandmother(non-hon) came.'   Marathi

(34) mhatar-y-a ajy-a   al-y-a
      old-F-PL   grandmother-DIRECT.PL come.PST-F-PL
      'The old grandmothers came.'   Marathi

As was mentioned in the introduction, all SG.HON nouns in all three languages trigger plural agreement, regardless of whether they appear with plural morphology or not. For

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[3]This of course raises the question of what is the semantic content of PL_{fake} that allows it to occur with both semantically plural and honorific nouns, but this is a challenge for any account that seeks to explain why honorifics co-opt plural morphology, and not just this particular account.

Marathi, this means that when a feminine noun is SG.HON, the feminine plural marker -a still appears on adnominal/verb agreement even though it does not appear on the noun, as shown in (35).

(35) mhatar-y-a aji(#-a)   al-y-a
      old-F-PL   grandmother(-#DIRECT.PL) come.PST-F-PL
      'The old grandmother (hon) came.'   Marathi

Because the same affix on nouns is incompatible with SG.HON nouns, but on adnominals and verbs is compatible with them, it will not do to encode (in)compatibility with SG.HON nouns in the featural specification of the affix. (38) is showing us that the same affix, in different syntactic positions, behaves differently with respect to its compatibility with SG.HON nouns. [4]

I take this as evidence that a syntactic analysis that seeks to explain the (in)compatibility of different plural affixes with SG.HON contexts in terms of the syntactic position of the affixes is on the right track. I now present a proposal that moves us towards that goal.

I assume that nouns realize at least the structure shown in (36). Following much of the Distributed Morphology literature, I assume that nouns involve an acategorial root that attaches to a nominalizing head, n. Further, following Ritter (1991) and subsequent work, I assume that there is also a Num head that takes a noun (nP) complement. The crucial aspect of this structure is the presence of two functional heads, an inner n head and an outer Num head.

(36)   NumP
         /   \
       nP   Num
      / \
   root   n
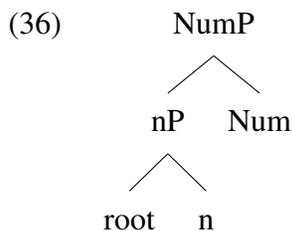
The next step is to show that oblique and feminine plural affixes realize an outer syntactic node than the class I masculine DIRECT.PL affix -e. We start by comparing class I and class II masculine affixes in Punjabi and Marathi. The relevant paradigms are repeated below in (37) and (38).

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[4]The same point cannot be made by Hindi or Punjabi for independent reasons. In Hindi, the plural affixes -ã/-ẽ found on feminine nouns are never found on adnominals and verbs. In Punjabi, while the feminine plural affix -ã does occur on adnominals and verbs, feminine SG.HON nouns trigger masculine agreement, so we never get to see feminine agreement (singular or plural) with honorific nouns. In none of these languages do oblique arguments trigger agreement.

(37) Punjabi masculine inflection paradigm

	class I	class II
DIRECT.SG	-a	-ø
DIRECT.PL	-e	-ø
OBLIQUE.SG	-e	-ø
OBLIQUE.PL	-eã	-ã

(38) Marathi masculine inflection paradigm

	class I	class II
DIRECT.SG	-a	-ø
DIRECT.PL	-e	-ø
OBLIQUE.SG	-ya	-a
OBLIQUE.PL	-yan	-an

We can see that class I masculine affixes can be segmented as consisting of an affix specific to class I nouns, which I will call the inner affix, followed by an affix shared with class II nouns, which may be null. The proposed segmentations are shown in (39) and (40).

(39) Punjabi masculine inflection paradigm

	class I	class II
DIRECT.SG	-a-ø	-ø
DIRECT.PL	-e-ø	-ø
OBLIQUE.SG	-e-ø	-ø
OBLIQUE.PL	-e-ã	-ã

(40) Marathi masculine inflection paradigm

	class I	class II
DIRECT.SG	-a-ø	-ø
DIRECT.PL	-e-ø	-ø
OBLIQUE.SG	-y-a	-a
OBLIQUE.PL	-y-a	-an

In Punjabi, the OBLIQUE.PL affix for class I nouns consists of an inner affix -e, found in the DIRECT.PL and OBLIQUE.SG with these nouns too, followed by the general OBLIQUE.PL affix -ã, found also in class II. In Marathi, the OBLIQUE.SG and OBLIQUE.PL class I affixes, -ya and -yan consists of an inner affix -y followed by the general masculine oblique affixes, -a and -an, also found in class II. In the other cells of the above paradigms, the corresponding class II affix is -ø and so only the class I-specific part, which is -a or -e, receives overt realization.

This segmentation of class I masculine affixes can be explained using the claim that there are two syntactic heads at play. In class I nouns, the inner affixes -a/-e/-y realize the inner n head. For class II nouns, n is uniformly realized as null. The Punjabi OBLIQUE.PL -ã and the Marathi OBLIQUE.SG -a and OBLIQUE.PL -ã, that are not specific to class I masculines, can be taken to realize the outer Num head. In other instances (DIRECT.SG,

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DIRECT.PL and Punjabi OBLIQUE.SG), Num is realized as null. When both n and Num are overt, we can see two affixes co-occur in the expected order.

(41) and (42) shows the exponents of both n and Num for each cell in the Punjabi and Marathi masculine paradigm. The affixes realizing n are shown in red, and the affixes realizing Num are shown in blue.

(41) Punjabi masculine inflection paradigm: exponents of n and Num

	class I	class II
DIRECT.SG	-a-ø	-ø-ø
DIRECT.PL	-e-ø	-ø-ø
OBLIQUE.SG	-e-ø	-ø-ø
OBLIQUE.PL	-e-ã	-ø-ã

(42) Marathi masculine inflection paradigm: exponents of n and Num

	class I	class II
DIRECT.SG	-a-ø	-ø-ø
DIRECT.PL	-e-ø	-ø-ø
OBLIQUE.SG	-y-a	-ø-a
OBLIQUE.PL	-y-an	-ø-an

This neat picture of segmentation in class I masculines does not translate as easily to Hindi. Consider the Hindi masculine paradigm, repeated in (43).

(43) Hindi masculine inflection paradigm

	class I	class II
DIRECT.SG	-a	-ø
DIRECT.PL	-e	-ø
OBLIQUE.SG	-e	-ø
OBLIQUE.PL	-õ	-õ

As we can see, the class I OBLIQUE.PL affix is not -e-õ as would be expected if Hindi behaved analogously to Punjabi and Marathi. However, in previous work (Sinha 2018), I posited that the OBLIQUE.PL affix of class I masculines in Hindi is in fact -eõ, and it surfaces as -õ due to a phonological process in the language that deletes e before round vowels. The existence of this process receives support from the fact that the language lacks the surface vowel sequences -eo, eu, eʊ etc. Further, this phonological process can explain why verbs that end in e in Hindi drop this final -e when they take the 2PL affix -o or the 1SG affix -ũ, as shown in (44)

(44) Dropping of e before round vowels in verb inflection

	2PL: -o	1SG: -ũ
le 'take'	l-o	l-ũ
	*le-o	*le-ũ
de 'give'	d-o	d-ũ
	*de-o	*de-ũ

If we say that the underlying form of the class I masculine affix is -eõ, the Hindi facts look almost identical to the Punjabi ones, with the only difference being that Hindi uses -õ instead of -ã as the exponent of Num for OBLIQUE.PL. The segmentation of Hindi affixes into exponents of n (red) and Num (blue) is in (45).

(45) Hindi masculine inflection paradigm: exponents of n and Num

	class I	class II
DIRECT.SG	-a-ø	-ø-ø
DIRECT.PL	-e-ø	-ø-ø
OBLIQUE.SG	-e-ø	-ø-ø
OBLIQUE.PL	-e-õ	-ø-õ

Let us examine the status of different plural affixes under the current analysis. In all three languages, the DIRECT.PL affix of class I masculines realizes n. It appears in red in (41), (42) and (45). In contrast, the oblique plural affixes realize Num, appearing in blue.

We can also show that feminine plural affixes realize Num, though the argument for that is more complex. We begin by observing that for many roots in all three languages, the -a affix found in class I masculines is in complementary distribution with a feminine affix -i [5]. As shown in (46)-(48), in all three languages, many class I masculine nouns have corresponding feminines that are formed by replacing the -a with -i in the feminine.

(46) Hindi masculine-feminine alternations

MASCULINE	FEMININE
ləɽk-a 'boy'	ləɽk-i 'girl'
ghoɽ-a 'horse'	ghoɽ-i 'mare'
bhətij-a 'nephew'	bhətij-i 'niece'

(47) Punjabi masculine-feminine alternations

MASCULINE	FEMININE
pot-a 'grandson'	pot-i 'granddaughter'
kòɽ-a 'horse'	kòɽ-i 'mare'
pə̀tij-a 'nephew'	pə̀tij-i 'niece'

(48) Marathi masculine-feminine alternations

MASCULINE	FEMININE
bhac-a 'nephew'	bhac-i 'niece'
ghoɖ-a 'horse'	ghoɖ-i 'mare'
kutr-a 'dog'	kutr-i 'bitch'

Since this -i is in complementary distribution with -a, it is reasonable to assume that it realizes the same morphosyntactic head as it, i.e., n. Next, we observe that when these nouns are pluralized, the plural affix (both in the direct and oblique case) is added after this -i. This is shown in (49)-(51) for the DIRECT.PL in all three languages.

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[5]The alternation between the affixes -a and -i to indicate gender is also found on adnominals and participles in all three languages.

(49) Hindi: plural of feminines with -i

DIRECT.SG	DIRECT.PL
ləɽk-i 'girl'	ləɽk-ɪy-ã
ghoɽ-i 'mare'	ghoɽ-ɪy-ã
bhətij-i 'niece'	bhətij-ɪy-ã

(50) Punjabi: plural of feminines with -i

DIRECT.SG	DIRECT.PL
pot-i 'granddaughter'	pot-i-ã
kòɽ-i 'horse'	kòɽ-i-ã
pə̀tij-i 'niece'	pə̀tij-i-ã

(51) Marathi: plural of feminines with -i

DIRECT.SG	DIRECT.PL
bhac-i 'niece'	bhac-y-a
ghoḍ-i 'mare'	ghoḍ-y-a
kutr-i 'bitch'	kutr-y-a

The addition of a vowel after -i leads to some changes due to previously mentioned regular phonological processes in Hindi (i → ɪy) and Marathi (i → y), but abstracting away from these processes, it is clear that the feminine plural affixes realize a head that is distinct from and further away from the root than n. It is therefore reasonable to assume that this head is Num.

It is worth remembering that not all feminine nouns take this affix -i, and presumably for these nouns, like with class I masculines, the exponent of n is null and we only get overt exponents of Num. For illustration, (52) shows paradigms for two feminine nouns in Punjabi: one with the overt feminine affix -i and one without. Henceforth, I use the terms i-feminines and non-i-feminines to refer to these two classes of feminines. As before, exponents of n are shown in red and exponents of Num are shown in blue.

(52) Punjabi i-feminines and non-i-feminines: exponents of n and Num

	i-feminine pə̀tiji 'niece'	non-i-feminine ɔrət 'woman'
DIRECT.SG	pə̀tij-i-ø	ɔrət-ø-ø
DIRECT.PL	pə̀tij-i-ã	ɔrət-ø-ã
OBLIQUE.SG	pə̀tij-i-ø	ɔrət-ø-ø
OBLIQUE.PL	pə̀tij-i-ã	ɔrət-ø-ã

Taking stock of the discussion so far, we arrive at the conclusion that the overt feminine and oblique plural affixes in these languages realize Num, while the class I masculine DIRECT.PL affix -e realizes n. Setting aside the Marathi oblique affixes which we have not yet discussed, the former affixes are incompatible with SG.HON nouns, but the class I masculine DIRECT.PL -e occurs with SG.HON nouns. This allows us to restate the generalization from section 2 in syntactic terms: plural affixes that realize n appear with SG.HON nouns,
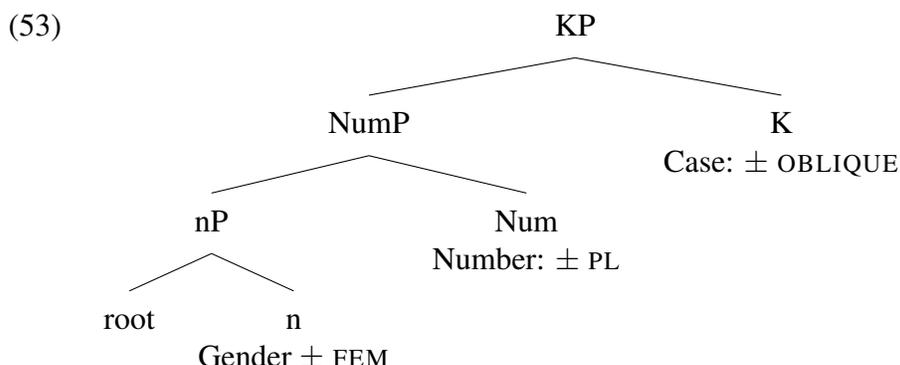
but plural affixes that realize Num do not appear with SG.HON nouns. The next step is to provide an account for this generalization, which I do in the next section.

4 Explaining the generalization

Our goal now is to explain why plural affixes that realize n are compatible with SG.HON nouns, but affixes that realize Num are not. In addition, our account must also be able explain why SG.HON nouns uniformly trigger plural agreement.

I will first present my analysis for how noun morphology works for non-honorific nouns, and then extended it to account for the behavior of honorific nouns, using Bhatt & Davis' (2021) proposal for Hindi honorifics.

As stated in the previous section, I assume that the nominal structure involves an n head and a Num head. Gender features are introduced on n (Lecarme 2002, Ferrari 2005, Kramer 2009, 2014, 2015), while number features are introduced on Num (Ritter 1991). The number feature on Num determines the semantic number interpretation – semantically singular noun have –PL, while semantically plural nouns have +PL. Further, there is also a K head that carries case features. The relevant structure is shown in (53).

(53)

```
                        KP
                  ┌──────┴──────┐
               NumP             K
            ┌────┴────┐    Case: ± OBLIQUE
          nP          Num
       ┌───┴───┐   Number: ± PL
     root      n
          Gender ± FEM
```

In the previous section, I proposed that noun affixes realize both n and Num, with SG.HON nouns taking the plural affixes that realize n, but not the plural affixes that realize Num. Let us consider the n- and Num-realizing affixes separately. For space reasons and concreteness, I illustrate how these affixes work for Hindi. Marathi and Punjabi behave analogously, except for Marathi oblique case, discussed in the next section. Once we undo phonological changes, the Hindi n-realizing affixes are as in (54). I continue the convention of using red to indicate n-realizing affixes.
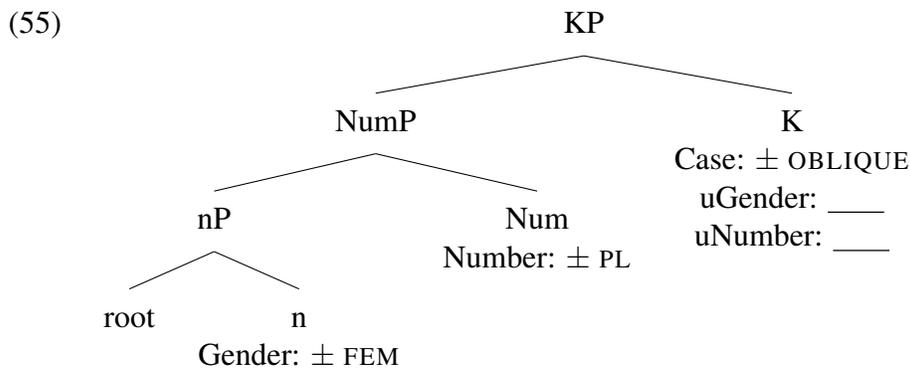
(54) n-realizing affixes in Hindi

	MASCULINE class I	MASCULINE class II	FEMININE with -i	FEMININE without -i
DIRECT.SG	-a	-ø	-i	-ø
DIRECT.PL	-e	-ø	-i	-ø
OBLIQUE.SG	-e	-ø	-i	-ø
OBLIQUE.PL	-e	-ø	-i	-ø

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While the realization of n is invariant across case and number for most nouns, for class I masculines, it is not. We get -a in the DIRECT.SG, -e in the DIRECT.PL, and -e in the oblique case. But in the proposal so far, n only starts with gender features, which raises the question of how n gets to be sensitive to features that do not arise on it.

To account for this, I propose that the ϕ-features (number and gender) inside a KP are first collected on the K head, and then the ϕ-features and case features on K are copied onto every head within that KP. The idea that ϕ-features within a nominal phrase are first collected on some high projection (like K or D), and then distributed on different heads within the phrase is common in analyses of concord (e.g., Baker 2008, Norris 2012, Pesetsky 2013, Toosarvandani & Van Urk 2014, Baier 2015), though different proposals differ in how exactly these two steps are implemented. I sketch out my implementation of these two steps below.

The first step of this process, which is collecting ϕ-features on K, is implemented via Agree. I assume that K has unvalued number and gender features, as shown in (55). K probes downwards and copies gender and number features from the closest (in this case, the only) heads that have those features, i.e. n and Num respectively.

(55)

KP
├── NumP
│   ├── nP
│   │   ├── root
│   │   └── n
│   │   Gender: ± FEM
│   └── Num
│   Number: ± PL
└── K
    Case: ± OBLIQUE
    uGender: ____
    uNumber: ____

The second step of copying features from K is due to the rule in (56). This rule is inspired by Pesetsky's (2013) *Feature Assignment*.

(56) When a K head merges with its complement and has valued all its unvalued features via Agree, for every feature f on K, and for every head H in the complement of K, the value of f on K is copied onto H, provided that H does not already have a value for f.

The idea is that the case, gender and number features on K acquired via Agree, get copied onto different heads in the complement of KP, including n and Num, provided that the head in question does not already have a gender or number feature. Number and case features get copied onto n from K because n lacks any number and case value. However, since n does already have gender features when K merges, gender features from K are not copied. Along similar lines, gender and case features get copied onto Num from K, but number features do not.

For non-honorific nouns, the number feature on n is identical to the one on Num. So, n has −PL when the noun is semantically singular, and it has +PL when the noun is semantically plural.

At this moment, we may ask why we did not chose a simpler explanation and say that n gets to be sensitive to features other than the ones that arise on it via contextual allomorphy. For instance, we could have said that the realization of n is subject to contextual allomorphy triggered by the number feature on Num. For non-honorific nouns, this proposal is indistinguishable from mine because under my proposal, for non-honorific nouns, the features on n end up being identical to the ones on Num. But we will see that in SG.HON nouns, my proposal allows n and Num to have different number features. This will allow us to explain why we get plural n-realizing affixes on SG.HON nouns, but not plural Num-realizing affixes. The alternative account based on Num-triggered number allomorphy on n has no way to make the number feature that determines the realization of n be distinct from the feature on Num. As such, it will not be able to explain the number morphology on SG.HON nouns.

The relevant Vocabulary Items for n in Hindi are in (57). I assume that these Vocabulary Items are subject to Paninian ordering, with more specific Vocabulary Items blocking less specific ones.

(57) VIs for n in Hindi
    a. [ ] ⟷ -ø / class II masculine, non-i-feminine _
    b. [+FEM] ⟷ -i
    c. [−FEM +OBLIQUE] ⟷ -e
    d. [−FEM +PLURAL] ⟷ -e
    e. [ ] ⟷ -a

Let us see how these VIs derive the distribution for n-realizing affixes. For class II masculines and for non-i-feminines, n is realized as null, per (57a). For the other nouns, we get -i for feminines per (57b). For class I masculines in the oblique case, we get -e per (57c). We can see that (57a)-(57c) are unspecified for number, and number plays no role in determining the choice of the n-affix for feminines, class II masculines, and class I masculines in the oblique case. Only in class I masculines in the direct case do we see an effect of number. Here, the choice is between the affixes in (57d) and (57e), since all other affixes are inapplicable. We get the affix -e for plural, per (57d) and the underspecificied affix -a for non-honorific singulars, per (57e).

Coming to the exponents of Num, the Hindi Vocabulary Items for Num are provided in (58). (58a) ensures -õ with all plural nouns in the oblique case and (58b)-(58c) ensures -ã or -ẽ with feminine plural nouns in the direct case, depending on whether the immediately preceding segment is an i or not. Elsewhere, (58d) applies. As a result, singulars and masculine plurals in the direct case take no overt exponent of Num. Recall that even though the Num head does not start out with gender and case features, it acquires them via the feature copying process described above, which allows the realization of Num to be sensitive to gender and number.

(58) VIs for Num in Hindi
  a. [Num, +PL, +OBLIQUE,] ⟷ -õ
  b. [Num, +PL, +FEM, −OBLIQUE] ⟷ -ã / i _
  c. [Num, +PL, +FEM, −OBLIQUE] ⟷ -ẽ
  d. [Num] ⟷ -ø

This analysis can therefore capture how the realization of both n and Num is sensitive to number, gender and case, and why, for non-honorific nouns, the number features on both of them end up being the same.
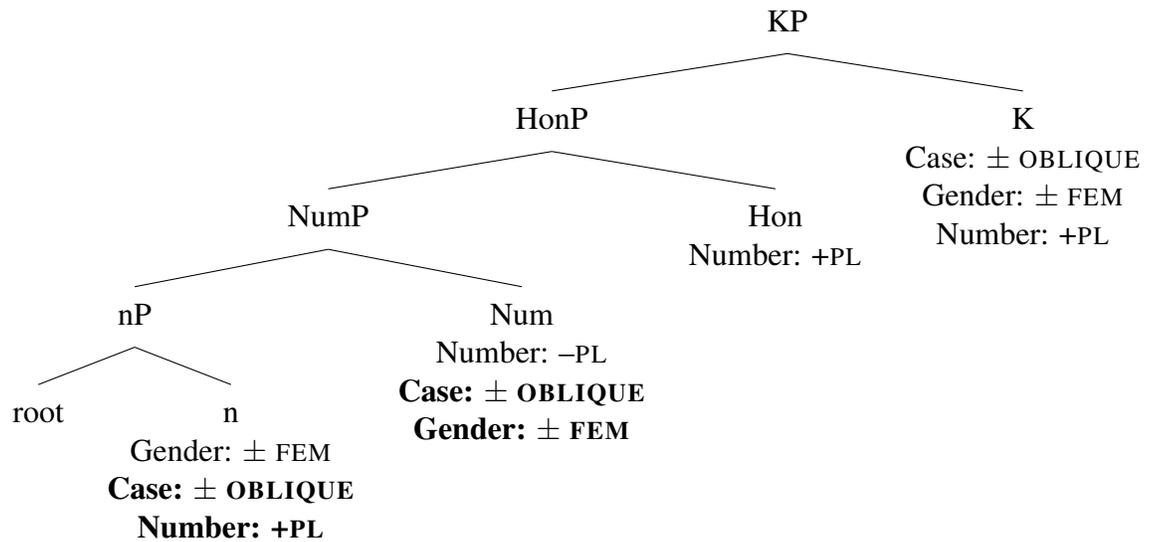
Now, we can consider SG.HON nouns. I adopt Bhatt & Davis' (2021) proposal that they involve an Hon head with a plural feature. The plural (+PL) feature on Hon gets interpreted as honorificity (and not semantic plurality) by a rule of contextual allosemy. This Hon head takes a NumP complement with a singular (−PL) feature, since the number feature on Num determines semantic number. The Hon head intervenes between the Num and K head, as shown in (59).

(59)
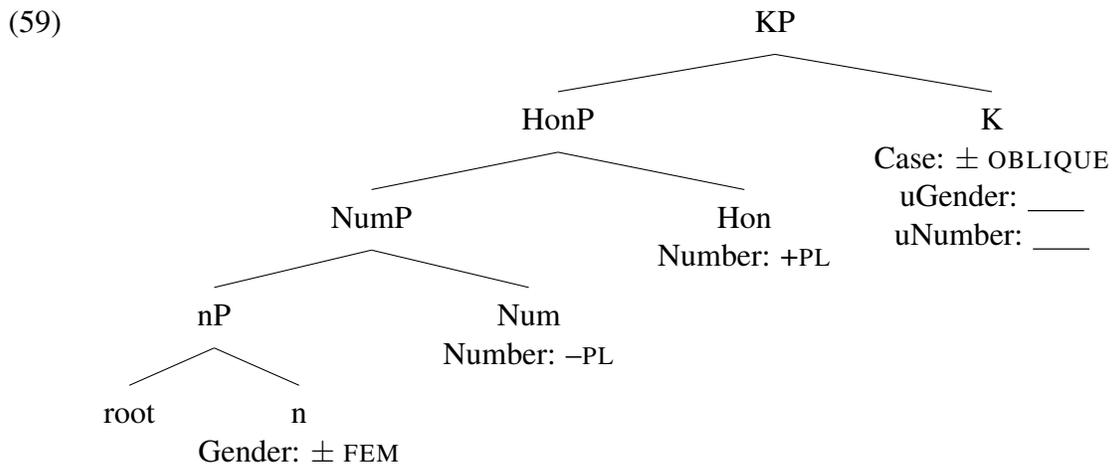
We can account for all the relevant facts if we assume that all elements that show agreement with the noun merge above the Hon head. For such an element, the closest number feature is the +PL feature on Hon and not the −PL feature on Num. This ensures that for all elements that agree with this noun for number will have plural agreement because they will copy the +PL feature from Hon, rather than the −PL feature from Num. This is also true for K.

Moreover, since the number features copied onto n come from K, n ends up with a +PL feature in these nouns, meaning that the number features on n and Num are different for SG.HON nouns, as illustrated in (60). The features on n and Num copied from K are shown in bold in (60). This asymmetry between n and Num ensures that with SG.HON nouns, we get the plural n-realizing affix but not the plural Num-realizing affixes.

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(60)

```
                                              KP
                                 ┌────────────┴──────────────┐
                              HonP                            K
                    ┌──────────┴─────────┐            Case: ± OBLIQUE
                 NumP                    Hon           Gender: ± FEM
           ┌───────┴──────┐        Number: +PL         Number: +PL
          nP             Num
     ┌─────┴────┐    Number: –PL
   root         n    Case: ± OBLIQUE
           Gender: ± FEM   Gender: ± FEM
           Case: ± OBLIQUE
           Number: +PL
```

To see how this works, let us look at some examples from Hindi. Consider class I masculines first, which have the DIRECT.PL -e instead of the DIRECT.SG -a, when they occur as SG.HON nouns. In SG.HON nouns, n has the feature +PL, and consequently (57d) applies, giving -e as the exponent of n. On the other hand, Num has the feature –PL, but in the direct case for masculine nouns, Num is realized as ø regardless of the number feature on Num. So, even though a SG.HON noun differs from a semantically plural noun in terms of the number feature on Num, this difference ends up being inconsequential for the inflection of masculine nouns in the direct case. Consequently, the SG.HON ends up looking like the plural.

On the other hand, for class I masculines in the oblique case, and class I masculines and feminines in general, the realization of n is invariant across both numbers, but the realization of Num is not. In these instances, with SG.HONs, we get the singular exponent of Num -ø, instead of the plural -õ/-ẽ/-ã. As a result, the SG.HON noun ends up looking like the singular rather than the plural.

Our analysis therefore is able to capture the asymmetry between n- and Num-realizing plural affixes with respect to their ability to occur with SG.HON nouns. The only issue left to be discussed is the oblique case affixes of Marathi.

5 Marathi oblique case

Setting aside the n-realizing affixes, the Marathi paradigm looks like (61). Distinctions between different classes in the same gender become irrelevant, because these classes only differed in their n-realizing affix.

(61) Marathi inflection without n-realizing affixes

	DIRECT.SG	DIRECT.PL	OBLIQUE.SG	OBLIQUE.PL
MASCULINE	-ø	-ø	-a	-an
FEMININE	-ø	-a	-ø	-an

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If Marathi behaved like Hindi and Punjabi, then these affixes would be expected to realize Num. Then, it follows that we should get the singular, rather than the plural versions of these affixes in SG.HON nouns. We saw that this was true for feminine nouns in the direct case: SG.HON versions of these nouns did not take the plural affix -a.

Things are more complicated in the oblique case however. If the above affixes realized Num, we predict the singular -a for masculines and -ø for feminines, instead of the plural -an. These predictions prove to be incorrect. For SG.HON masculines in the oblique case, we get plural -an instead of the singular -a, as shown in (62).

(62) vaḍil-an-na   boləw
     father-OBLIQUE.PL call.IMPER
     'Call the father (hon)/fathers.'   Marathi

For feminines, we find something more unusual. The SG.HON form does not take the singular -ø or the plural -an, but a different inflection altogether -n, as shown in (63). For now, I gloss this -n as '?' to indicate that we do not know what it is.

(63) aji-n-na   boləw
     grandmother-? call.IMPER
     'Call the grandmother (hon).'   Marathi

To make sense of these facts, I propose to further segment OBLIQUE.PL affix -an, as consisting of -a, which realizes Num, followed by -n. I claim that the various -a in (61) realize Num, while -n realizes K. This is consistent with -n occurring further away from the root than -a. Outside the OBLIQUE.PL, K is realized as null. The revised paradigm with Num and K-realizing affixes segmented is in (64). Num-realizing affixes are in blue, while K-realizing ones are in black.

(64) Marathi inflection without n-realizing affixes

	DIRECT.SG	DIRECT.PL	OBLIQUE.SG	OBLIQUE.PL
MASCULINE	-ø-ø	-ø-ø	$-a_1$-ø	$-a_1$-n
FEMININE	-ø-ø	$-a_2$-ø	-ø-ø	$-a_2$-n

Even though both masculines and feminines have -a as an exponent of Num in the OBLIQUE.PL, these are different affixes, as indicated by distinct subscripts for these affixes. Crucially, for masculines, $-a_1$ is an oblique affix that is not specified for number, because it also occurs in the OBLIQUE.SG of masculine nouns. For feminines, $-a_2$ is an plural affix that is not specified for case, because it also occurs in the DIRECT.PL of feminine nouns. This difference will explain the difference between masculine and feminine SG.HON nouns in the oblique case.

Recall that under our analysis for SG.HON nouns, Num has a singular feature, but K ends up with a plural feature. Therefore, we predict a singular exponent of Num and a plural exponent of K with singular honorific nouns. Given the segmentation in (64), this is exactly what happens. For SG.HON masculines in oblique case, we always get $-a_1$ (since

it is underspecified for number), followed by a plural exponent of K, which is -n. As a result, SG.HON nouns look identical to plural ones, as in (62). For SG.HON feminines in the oblique case, the plural exponent of Num -a_2 is ruled out, but we still get the plural exponent of K, -n. Consequently, this form of the noun looks distinct from both its (regular) singular and plural forms.

The behavior of feminine nouns in the oblique case is particularly supportive of the general approach we have adopted of segmenting noun inflection into smaller affixes because we can see that a part of the feminine OBLIQUE.PL inflection -an is incompatible with SG.HON nouns (-a), and a part of it is compatible (-n). If these were not decomposed into smaller affixes, we would have no way to capture this variable behaviors of different parts of the inflection.

6 Conclusion

This paper has proposed an account for the varying behavior of different plural affixes with respect to their ability to occur in SG.HON nouns. This account relies on a specific morphosyntax for noun inflection in these languages, which makes use of three heads in the nominal spine, n, Num and K. Aside from accounting for the facts in these three languages, the account developed here makes claims that have implications beyond these languages.

Along with Bhatt & Davis (2021), I proposed that the plural morphology associated with honorifics from a dedicated Hon head, which hosts a +PL feature. It is worthwhile to consider if this proposal provides any insight in analyzing other honorificity-related phenomena cross-linguistically. A particularly insightful avenue for this research would be the so-called hybrid agreement patterns associated with honorific pronouns (Puškar-Gallien, 2019).

I also proposed a rule of feature copying that allows features from the K head to be copied onto different heads within the nominal phrase, including n and Num. Another interesting avenue for future work would be to see if this rule can be understood as a consequence of some more general syntactic (or potentially post-syntactic) process. Analysis of different kinds of concord patterns seems to me to be an area that will yielf fruitfut results.

References

Baier, Nicholas. 2015. Adjective agreement in Noon: Evidence for a split theory of noun-modifier concord. In *LSA annual meeting extended abstracts*, vol. 6, 1–1.

Baker, Mark C. 2008. *The syntax of agreement and concord*, vol. 115. Cambridge University Press.

Bhatt, Rajesh & Christopher Davis. 2021. Honor and number agreement in Hindi-Urdu. Presentation slides.

Comrie, Bernard. 1975. Polite plurals and predicate agreement. *Language* 406–418.

Dhongde, Ramesh Vaman & Kashi Wali. 2009. *Marathi*, vol. 13. John Benjamins Publishing.

Ferrari, Franca. 2005. *A syntactic analysis of the nominal systems of Italian and Luganda: How nouns can be formed in the syntax*. New York University.

Ghomeshi, Jila & Diane Massam. 2020. Number is different in nominal and pronominal phrases. *Linguistic Inquiry* 51(3). 597–610.

Halle, Morris & Alec Marantz. 1993. Distributed morphology and the pieces of inflection. *1993* 111–176.

Halle, Morris & Alec Marantz. 1994. Some key features of Distributed Morphology. *MIT working papers in linguistics* 21(275). 88.

Kramer, Ruth. 2009. *Definite markers, phi-features, and agreement: A morphosyntactic investigation of the Amharic DP*. University of California, Santa Cruz.

Kramer, Ruth. 2014. Gender in Amharic: A morphosyntactic approach to natural and grammatical gender. *Language sciences* 43. 102–115.

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

Lecarme, Jacqueline. 2002. Gender 'polarity': Theoretical aspects of Somali nominal morphology. *Many morphologies* .

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

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

Puškar-Gallien, Zorica. 2019. Resolving polite conflicts in predicate agreement. *Glossa: a journal of general linguistics* 4(1).

Ritter, Elizabeth. 1991. Two functional categories in noun phrases: Evidence from Modern Hebrew. In *Perspectives on phrase structure: Heads and licensing*, 37–62. Brill.

Sinha, Yash. 2018. Hindi nominal suffixes are bimorphemic: A Distributed Morphology analysis. *Proceedings of the Linguistic Society of America* 3(1). 20–1.

Toosarvandani, Maziar & Coppe Van Urk. 2014. The syntax of nominal concord: What ezafe in Zazaki shows us. In *Proceedings of nels*, vol. 43, 221–234.