Four Puzzles and Affixal N in Hindi

Hi Sunt Dracones 'Here be dragons' (Hunt-Lenox Globe, c.1510 CE, eastern Asian coast)

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ABSTRACT

Four puzzles in Hindi morphosyntax are "default agreement," an "oblique stem," suppletion in the nominative plural, and number-case synthesis. These phenomena are not unrelated. I analyze T's φ-features as nominal category features: N (the so-called "gender φ-feature(s)"), Num, and D, or Person. The default value *-aa* of the categorial feature N ("Affixal N," "N-stem") is reflexively overt in Hindi. "Default agreement," which surfaces in the absence of Agree, is this affixal N at T. Taking Case as a categorial feature, I argue that the nominative case feature is minimally [N-on-T]. N surfacing as *-aa* on T without Agree, an *-aa*-marked subject noun must check [N-on-T] by "reverse" Agree to get nominative case; N-*aa* becomes a "nominative stem" (N-*ee* is the 'elsewhere' stem). The Hindi Number suffixes are "portmanteaux," not "syncretic." NUM is a nasal feature spelt out on a structural Case feature: on [N-on-T] (spelt out *aa*) in the nominative, and elsewhere, on [V], the accusative case-feature common to all oblique cases (spelt out *-oo*). This explains the various plural suffix-shapes, and why plural agreement on V manifests as just a [nasal] feature (as NUM has no vowel *-aa* prior to nominative case assignment, the vowel in the NOM PL suffix *-ãã* is absent in agreement). The form expected as the NOM.M.PL noun is *N-*aa-ãã*. This form suffers spell-out failure, and suppletion occurs. This analysis of Hindi Number and Case explains the near-universal silence of nominative case as a 'direct' or self-licensing case that manifests only in "φ-agreement" at T.

1 Introduction

Hindi morphosyntax presents puzzles, not unique to this language, such as "default agreement," a putative "oblique stem" (N-*ee*), the morphological synthesis of number and case, and a suppletive nominative plural (N-*ee* again), distinct from the oblique plural N-*õõ*. I analyze these four phenomena as consequences of a property of Hindi "affixal N" (to use Pesetsky's (2013) term). I argue that the "gender phi-feature(s)" of N are affixal N, i.e., N-stems or N-category feature(s). Taking Case as a syntactic category feature, the "uninterpretable phi-feature of gender" at T is a formal, N-category feature, and the "uninterpretable phi-features" of person and number at T are the categorial features D and Num. These nominal features make up the "nominative case feature" (*pace* Pesetsky 2013), but only N among these "*u*phi" or categorial features is inevitable, so nominative case is minimally [N-on-T].

In Hindi, the N-category feature has a default, reflexive, spell out *-aa*, traditionally termed the "3M.SG." gender-number feature. Gerundive nominalizations have an overt *-aa*. Here, *-aa* is not masculine or singular, but a recognizable reflex of nominalization (an overt categorial feature N with a default value), the default spell out of affixal N. The reflexive overtness of default affixal N has three consequences: "default agreement" *-aa*, a

"nominative stem" N-*aa* (with N-*ee* an "elsewhere" form), and suppletion in the nominative masculine plural. What is spelt out at T as its "gender phi-feature" is, as in the gerund, an affixal N whose default value -*aa* appears on the verb as putative "3MSG default agreement" in the absence of Agree. The N at T, being valued by default as -*aa*, fails to probe for an identical "3MSG" subject N-*aa*. Therefore, a subject N-*aa* cannot get nominative case except by "reverse Agree" with T. Thus, -*aa* must be specified with an uninterpretable [*u*N-on-T] feature (and not an [αCase] feature). This makes N-*aa* a "nominative stem" and necessitates an "elsewhere" stem N-*ee* (the putative "oblique stem").

Turning next to the Hindi plurals, these suffixes are known to vary by case (in the nominative and non-nominative paradigms), but their various forms are thought to be arbitrary. Assuming nominative and accusative case to be the categorial features N and V, Hindi plural suffixes are seen to be portmanteaux spell-outs of NUM's lexically specified nasal feature on the structural case feature-vowels -*aa* (*aa* being the default N vowel) and -*oo.* As for suppletion, the expected nominative plural suffix is -*ãã*. When -*ãã* suffixes to N-*aa*, the resulting sequence *N-*aa-ãã* (I claim) fails to be spelt out (perhaps due to feature-conflict). The elsewhere stem N-*ee* occurs as a suppletive plural, supporting a view of suppletion as occurring where the regular affix fails (Kayne 2020).

The paper is structured as follows. Sections 2 and 3 argue that the gender features of N are its categorial features, and resolve the problem of the "two morphemes" -*ee* by positing -*aa* as the dedicated nominative (masculine) stem (*pace* McFadden 2018). Sections 4-6 motivate the nominative stem in terms of "default agreement," and explicate the nature of nominative case. Sections 7-8 specify the N-features and illustrate the absence of number concord in Hindi, and 9-10 turn to Hindi Number. I motivate the various shapes of the regular plural suffix (supporting the argument with facts from agreement), and offer an account of NOM.M.PL suppletion based on Kayne (2020) and Collins and Kayne (2020). Sections 11-12 conclude with the implications of the analysis for theorizing number-case syncretism, and locating the case hierarchy vis-à-vis the nominal functional sequence.

2 Affixal N: Gender phi-features are N-category features

The noun-root in Hindi must assume one of three canonical noun shapes ending in -*aa*, -*ee* or -*ii*, in the syntax. E.g., a root *laṛk-* surfaces with -*aa*, -*ee*, or -*ii* in the nouns *laṛk-aa*, *laṛk-ii*, *laṛk-ee*, usually glossed 'boy, M.SG.,' 'girl, F.SG.,' and 'boy, OBL.M.SG/ NOM.M.PL.' Such suffixes have been termed stem-formatives (Noyer 1992:14), noun-stem allomorphs (McFadden 2018), or even "theme vowels" (in Russian). In the syntax, where they appear in agreement and concord, they may be termed gender (and number) "phi features" that are thought to be interpretable on the noun. However, outside of human/ animate count nouns, these Hindi formatives are uninterpretable, and easily seen to be purely formal categorial features (or allo-features). Consider a class of productive nominalizations that correspond to the English infinitive/gerund paradigm. The Hindi deverbal nouns *ḍar-naa* 'to fear,' *aa-naa* 'com-ing,' end in -*aa* in the nominative paradigm (1a), and in -*ee* in the oblique (1b), but the suffixes are not interpretable as masculine or singular.

(1) a. ḍar-n-aa manaa hɛ / andar aa- n- aa manaa hɛ.
fear-NMNL-*aa* is forbidden inside come- NMNL-*aa* is forbidden
'To fear is forbidden / No entry.' [lit. 'Fearing/ coming in is forbidden.']
b. ḍar - n-ee see/ par … / andar aa- n- ee see/ par …
fear- NMNL-*ee* by/ on inside come -NMNL-*ee* by/ on
'By fearing /by coming in; on fearing /on coming in, …'

In (1), the "masculine gender" of the "phi-features" *aa* and *ee* can signal only that the nouns derived belong to a productive, unmarked subclass. Productive, regular deverbal nouns never carry the "feminine" N-feature *-ii*, but lexically idiosyncratic nominalizations do: e.g., the root *cal-* 'walk' has a regular masculine nominalization *cal-naa* 'to walk, walking,' and an idiosyncratic nominal with a (covert) feminine nominal feature in *caal-Ø* 'walk (walking style), behavior, trick.' Gender thus reflects 'genre,' or noun (sub)class, not a semantically interpretable feature. Hindi has grammatical gender. Harris (1991) too argued at length that the putative gender morphemes of Spanish were mere "word markers." So also, *aa*, *ee* are not "singular" in (1). (More evidence against *aa*, *ee*, *ii* as "singular" (*pace* Castillo 2001),[1] in (3) below, is their (covert) occurrence in the non-count/ mass nouns *paani-Ø* 'water,' *hawaa-Ø* 'breeze.')

Pesetsky (2013:4-5), proposing that Case is a syntactic category feature, refers to "the suggestion by Marantz (1997) and others" that words are formed by "categorizing morphemes" on category-neutral roots, and suggests that these are "affixal realizations" of "the various *parts of speech*" (his italics). Adopting this formulation, I shall say that Hindi *-aa*, *-ee*, *-ii* are affixal N, featural realizations of the syntactic category N, and refer to them as N-stems or N-features. Affixal categories may appear (Pesetsky suggests) either by the "lexical route" (attaching to a root), or by feature-sharing in syntax. I shall show that the Hindi N-features, though mandatory, are lexically silenceable on N-roots. However, they are obligatorily overt when they appear by feature-sharing in the syntax as concord on A (cf. (3) below).[2] I take the reflexive overtness of the default N-feature in (1) to be this same syntactic overtness of affixal N (taking productive derivational morphology as syntactic, not lexical), and extend the argument to affixal N at T that appears as agreement on V.

3 The "oblique stem" and the "two morphemes" *-ee*

Given the two "masculine" affixal N *-aa*, *-ee* in (1), is *-ee* "oblique," or *-aa* "nominative"? Blake (2001:10) cites the very Hindi nouns *laṛk-aa* 'boy, M.SG.,' *laṛk-ee* 'boy, OBL.M.SG,' to illustrate that N-stems in the world's languages may occur as "nominative, alternatively direct," or "oblique" (cf. also Mohanan 1994:61, and n. 8). The lexicalization of an oblique stem does not motivate the need for it. Notice that only masculine N in Hindi have an oblique stem. Feminine N occur unchanged in nominative and oblique contexts:

[1] Reported (in Ueda 2009:109) to designate Hindi *-aa* and *-ii* as Number morphemes, in support of a claim that "singular" may have a phonologically specified shape.
[2] Italian nouns derived from present participles (*patente* 'license,' *cantante* 'singer') are unmarked for gender, but trigger gender inflection on adjectives (Giusti 2011).

(2) a. laṛk-ii aay -ii.
girl-F.SG. came-F.SG.
'The girl came.'
b. laṛk-ii -koo deekh-oo.
girl-F.SG. -ACC. see- IMP.
'See the girl.'

In the absence of a general distinction between "direct" and "oblique" stems in Hindi, it may well be that it is N-*aa* that is a "nominative stem" prohibited in oblique contexts and N-*ee* an elsewhere stem (a possibility McFadden (2018) briefly considers but rejects on putative markedness grounds for Finnish-type languages). Designating -*ee* oblique results in an idiosyncratic "homonymy" of the oblique singular and nominative plural morphemes -*ee* (under a structuralist view of the morpheme) that is both uneconomical and circular. Consider covert masculine nouns like *bandar*-Ø 'monkey,' *paani*-Ø 'water,' that trigger overt -*aa* (M.SG) and -*ee* (OBL.M.SG/ NOM.M.PL.) concord in the expected way:

(3) a. gand-*aa* bandar-Ø / gand-*aa* paani-Ø aa-yaa
dirty-*aa* monkey-Ø dirty-*aa* water-Ø come 3M.SG.
'The dirty monkey came/ Dirty water came.'
b. gand-*ee* bandar-Ø/ gand-*ee* paani-Ø -koo mat chu-oo/-naa
dirty-*ee* monkey-Ø dirty-*ee* water-Ø -ACC. don't touch-IMP.
'Don't touch the dirty monkey/ the dirty water.'
c. gand-*ee* bandar-Ø aa-yee
dirty-*ee* monkey-Ø come-3M.PL.
'The dirty monkeys came.'

Assuming that a late rule silences the N-feature on these nouns, if -*ee* is OBL.SG in (3b) but NOM.PL. in (3c), -*ee* silencing must be specified to apply to two unrelated morphemes. Worse, the across-the-board homonymy of these putative morphemes means that only by function and distribution are they distinguishable in the first place, not morphologically. Entertaining, therefore, the view that it is -*aa* that is restricted to the nominative, I now turn to the question of why Hindi might have a dedicated nominative N-stem -*aa*.

4 "Default Agreement:" A Misnomer for Agree Failure

Descriptively, "default agreement" is an -*aa* that appears on the Hindi verb in the absence of Agree, without T feature-checking an argument and assigning nominative case. The identification of legitimate "default agreement," in fact, depends on the impossibility of Agree: cf. Preminger's (2009) "characterization" of "the relation between phi-agreement and (un)grammaticality":

(4) (Preminger's (58)) "*You can fail, but you must try*": Applying ϕ-agreement to a given structure is obligatory; but if the structure happens to be such that ϕ-agreement cannot culminate successfully, this is an acceptable outcome.

"Agreement" is thus a misnomer for the *-aa* that surfaces on V in (i) ergative clauses with an overtly *k-oo*-marked object (cf. (5a), where T can agree with neither the object nor the ergative subject); and (ii) in passive constructions where the verb carries passive morphology but the thematic object retains its *-koo* marker, (5b). Observe the mismatch of the *aa*-marked verb with the arguments in these examples.

(5) a. mɛ̃-nee rooṭi -yõõ -koo khaa.Ø(y) -aa
I-ERG. roti.F -OBL.PL -ACC. eat.PERF. -3M.SG.
'I ate the rotis.'

b. bacc-õõ -koo chaḍi -see maar.Ø-aa jaa.t -aa thaa.
child-OBL.PL-ACC. stick-INSTR. hit.PERF-3M.SG. PASS.IMPF.-3M.SG. BE.PERF.3M.SG.
'Children were beaten (=used to be beaten) with sticks.'

Anand and Nevins (2006:19), pointing out in passing the problem "default agreement" poses for classical Agree theory, assume a unique head $T_{checked}$ specific to Hindi, valued for the "3M.SG." feature. But what has checked it? The supposition is that T has an uninterpretable phi-feature set that can surface only if its value is "checked" by a corresponding interpretable occurrence. I have shown that gender on Hindi N is not an interpretable but an N-feature; and that *-aa* is a spell out of affixal N that appears reflexively in productive deverbal nominalisation in (1a). I suggest that "default agreement" *-aa* is a similar reflexively spelt out N-feature on T (its "gender phi-feature").

Here I must recapitulate two points from Amritavalli (2019) about the nature of Hindi "T," and feature-checking by Hindi "T." Hindi T is a feature complex [$T_{PERSON.NUM}$ - PTCPL.$_{NUM.GEN.}$], and the "phi-features" are not checked as a bundle. A sentence 'I run' in Hindi surfaces as 'I be.$_{PERSON.NUM.}$ run.$_{IMPF.PTCPL-NUM.GEN}$.' T has a dummy verb *be* marked for person and number, and the verb is a participle (in nominative as well as ergative clauses). T probes only for Person. The PTCPL head probes for and values the NUM feature; this value is specified also at T, under a feature-sharing version of Agree (Pesetsky and Torrego 2007). The gender or N-feature remains at PTCPL. In (5), thus, *-aa* appears on the perfect participle 'eaten' in (5a), and in (5b), on the imperfect (habitual) passive participle 'going' (= "getting") (and the perfect participles 'hit,' 'been'). (The imperfect (non-past) participial inflection is *-t-*; I take the perfect (past) participial inflection to be null.) For a participle to have an N-feature (i.e., categorially be nominal as well as verbal) is perhaps natural; participles in English, e.g., function as adjectives, long thought to featurally be [+N, +V]. The participles in (5) are unpronounceable without their N-feature inflection.

Default agreement is thus a default, unchecked [[*u*N]-on-T] feature spelt out *-aa* on the verb that raises to pick up its participial inflection. The unchecked N-feature neither simply deletes (as has sometimes been suggested), nor stays silent.

Note that "default agreement *-aa*," conventionally notated "3M.SG.," is solely an N-feature. The informal notation "3" for Person indicates a lack of a value for Person (taking 3rd person as the absence of person, Harley and Ritter 2002). As for Number, *-aa* (we said) does not necessarily lexicalise a "singular" feature (appearing as it does on non-count N and on deverbal nominalizations). "Singular morphology" is a default that includes absence of Number (Pesetsky 2013). Therefore, Person and Number are valued at T only by Agree

with an argument that specifies values for them; else, they are absent at T. "Masculine gender," the default value of N, is not, however, the absence of N, but a default feature-subclass of N. Among the "phi-features," then, the categorial N feature is always and at least, present at the T-complex; and [[*u*N]-on-T] is spelt out on the verb with a default value even when nothing values it, and no nominative case is assigned.

5 Default *-aa* versus checked *-aa*: a problem

What differentiates "default *-aa*" from a "checked *-aa*" at T? To put it differently, what prevents [[*u*N]-on-T] from always surfacing by default as *-aa*, independent of Agree?

Neither Anand and Nevins (2006) nor Preminger (2009) frontally address this question of how to rule out illegitimate "default agreement," as their primary concern is to "rule in" or allow default agreement in structures where the goal is inaccessible, cf. (4): "if … ϕ-agreement cannot culminate successfully, this is an acceptable outcome." Preminger offers an injunction, "You can fail, but you must try." What enforces the injunction to "try"? It must be the probe's need to value its unvalued features.

Consider now three scenarios where the Hindi [N on T] probes the subject for its value, assuming a classical account of nominative case as a "reflexive" checking of the subject's *u*Case feature contingent on T's checking its "*u*phi" features with the subject's "*i*phi" features. (i) The subject N-stem has the specified feature values "feminine" or "suppletive M.PL." The goal's specified value is specified at T, spelt out *-ii* or *-ee* (as "gender-(number) agreement"), and case is assigned. (As T's "phi-features" are checked individually in Hindi, each corresponding "*i*phi" nominal head presumably has its case feature checked.) (ii) The goal is *ko-* marked (as in ergatives and passives). Agree tries and fails, and [*u*N] surfaces with its default categorial value *-aa* (as per Preminger). (iii) The subject is "masculine," and its N-stem is spelt out *-aa*. For concreteness, assume a mass noun subject as in *paaniØ beht-aa hɛ* 'Water(.M) flows.M' (with *-aa* lexically silent but appearing by feature-sharing in agreement), where "gender" is the only feature of the subject that could be valued. As *-aa* is the default value of affixal N, the subject N-*aa* has no specified feature values (assuming privative features, as in Nanosyntax; in a binary feature system, it would have unmarked, i.e. unspecified, feature values). When [*u*N] on-T (which has no specified values) probes for a value for itself, it encounters in the goal the identical N with no specified feature values. Therefore, no feature-valuation could occur. Agree would thus fail, but not obviously, because unvalued N in the syntax is spelt out by default in the absence of valuation. Thus, [*u*N] on-T will nevertheless be independently spelt out *-aa*, as "default agreement." But if Agree does not happen, how is an N-*aa* in subject position licensed as nominative?

It seems that Preminger's imposition of an additional "if … then" logic on Agree in (4), which works for scenario (ii), must be strengthened for scenario (iii) by a "match" contingency on the probe: "if you find an identical value on the goal as on yourself, check yourself and assign Nominative anyway; *only if the goal is inaccessible* may you spell out your N-feature without assigning case, as default agreement." Thus, Agree must be complicated in more than one respect (with an *if-then* logic, plus a *match* condition) to distinguish "checked *-aa*" from "default *-aa*." The same problem arises with Anand and

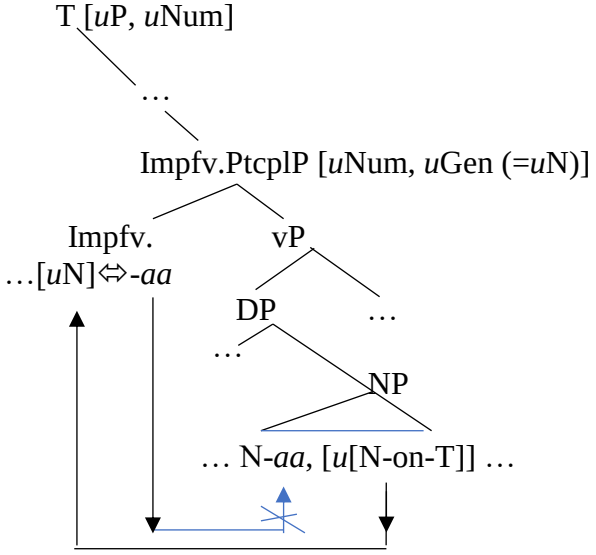
Nevins' $T_{checked}$. If $T_{checked}$ merges where phi-agreement with an N-*aa* subject is possible, Agree becomes illegitimately inoperative, but with no surface reflex of illegitimacy.

What the Hindi data tells us is that it is our premise that "default agreement" is a form of agreement that is wrong. It is irrational to modify Agree to account for a phenomenon that arises in the absence of Agree. If "default agreement" is not a value specified by feature-sharing by agreement, but (as I suggest) is an unchecked, default N-stem value reflexively spelt out in the syntax on T (as it is on gerundive nominals), the problem, rather, is how to ensure that a subject with an N-*aa* stem gets nominative case, in the face of a possible occurrence of this very N-stem value on T as "default agreement."

6 Nominative case: its assignment, and its silence

I suggest that the solution is "reverse" agree, adapting (modifying) a proposal for reciprocal checking in Pesetsky & Torrego (2001). The problem, and the proposed solution, are illustrated in (6), adapted from Amritavalli's (2019) example (12).

(6)



In (6), the IMPFV. PTCPL's [[*u*N]-on-T] probes its goal (the subject) for its N or "gender" value. The subject has an N-*aa* stem, and "gender" valuation fails. However, the subject N-stem -*aa* is endowed with a case feature. I assume the case feature here to be not a general feature [*u*/*α*Case], but a specific nominative case feature [*u* [N-on-T]]. This feature independently probes for and checks its categorial feature at T. N-*aa* licenses itself, but as a result of its [*u* [N-on-T]] case feature, N-*aa* becomes a "nominative stem."

This proposal for "reverse" agree differs from the Pesetsky-Torrego proposal in its assumptions. (i) Nominative case is not [*u*T on D] (uninterpretable Tense on D), but the subject nominal's own categorial values on T. (ii) Thus, nominative case assignment is not a reciprocal exchange of uninterpretable T and D features, and "reverse" agree is not

dependent on "phi-feature valuation by T." [3] (iii) Not all N-stems have a [*u* [N-on-T]] nominative case feature (this would restrict them all to the nominative projection.) N in general has only a *u/α*Case feature. (iii) Case is a syntactic category feature, primarily a structural-case feature: either the nominative case feature(s), or the accusative case feature, common to all oblique cases (Caha 2009).

We may now understand the "*u*T" feature (which Pesetsky and Torrego admit they find no spell out evidence for at D) to be the set of nominal categorial features {D, Num, and N} which are present at T and valued in the subject DP, but must be valued at T. The subject's presence is identified at T by its own categorial features. This explains (i) in what sense nominative is a "direct" case (no alien case-head assigns its syntactic case feature to the DP, which licenses itself on T); (ii) the apparent "silence" of Nominative case at the DP (it should morphologically be an iteration at the DP of its own categorial features, but their iterated spell-out in the same projection appears to be suppressed), and (iii) conversely, the ubiquitousness of "phi-feature agreement," i.e., valued DP-features-on-T which appear on the inflected verb (often considered an "imperfection" in language, an ill-understood phenomenon that has more recently been termed "a core case of syntactic doubling," Barbiers 2008:28).

Hindi nominal morphology is particularly transparent in that the features of the syntactic category N are expressed on the noun. In some languages, N-features are silent on the noun (as they may be in Hindi as well; perhaps because heads prefer to be silent, Kayne 2016). In languages without concord, N-features may appear only in verb "agreement." Even in agreement, the categorial N-feature is the most likely to be silent. In the Greenbergian implicational hierarchy, gender agreement is said to depend on the incidence of number agreement (Harley and Ritter 2002). i.e., among the phi-features Person, Number and N/Gender (conceptually, "deixis, countability and taxonomy" features, Harley and Ritter 2002), the "taxonomy" or N-categorial features are the least likely to appear, even though, in my analysis, only N is inevitably projected in the nominal expression and at T. The pervasive silence of the N-category feature is perhaps why "phi-agreement" has been a construct that makes no reference to categorial features.

To sum up this section, Agree between the default [N-on-T] and an N-*aa* subject can be enforced (for the purposes of nominative case assignment) by shifting the burden of checking from the N-probe at T to the goal N, by specifying a [*u*[N-on-T]] feature on -*aa*. "Default agreement" at T thus entails a dedicated "nominative stem."

7 Specifying the N-categorial features

Prior to considering the other two puzzles, I attempt to explicate the feature specifications of the Hindi N-stems. I assume that syntax puts together individual features by the operation Merge. In Nanosyntax (Starke 2009, Caha 2009), the lexicon contains sub-trees.

[3] Zeijlstra (2012: section 3.1) suggests that "(n)othing would go principally wrong if the case-checking relation was the primary one and φ-agreement secondary" in subject-verb agreement, and that upward agree "(r)evers(es) the Agree relation." Indeed, these may be just two independent mechanisms (of case-licensing and case-specification). (My proposal is compatible with upward Agree, and an assumption that a syntactic category feature on an "alien" syntactic category is in some sense "uninterpretable," or alien.)

A lexical tree matches a syntactic node if it contains the syntactic tree (the Superset principle), subject to the Elsewhere ("minimise junk") principle for competing entries, and to Cyclic override ("biggest wins"). A morpheme in Nanosyntax is a lexical sub-tree of syntactic features, paired with conceptual and phonological features (Baunaz and Lander 2018).

We noted that feminine N have only one stem N-*ii*, but masculine N have two: N-*aa*, N-*ee*. "Gender" (genre) first splits the N-category into unmarked ("masculine") and marked ("feminine") sub-classes; only the unmarked subclass undergoes further feature specification. Assuming privative features, "unmarked" is "featurally/ structurally simplest." In (7), [FEM] is specified, and [MASC] is just "affixal N."

(7) i. /-aa/ <=> N ii. /-ee/ <=> N iii. /-ii/ <=> FEM
N

What differentiates the N-stems -*aa* and -*ee*? N-*aa* is never plural. N-*ee* is "singular-only" in the oblique, and "suppletive plural-only" in the nominative projection.

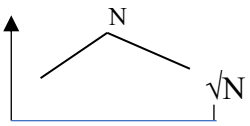
We referred to Pesetsky's (2013) characterization of "singular morphology" as "'elsewhere' number (singular or absence of NBR)." I suggest Hindi -*aa* is a default, elsewhere number form that includes both [SINGULAR] and "absence of NBR," whereas -*ee* is specified for "absence of NBR:" it is "numberless." Borer (2005) suggests that all nominal denotations are mass denotations, and a specific structure is projected that makes nouns "count." However, a putative feature [Count] could not formally sub-classify Hindi nouns; it is a contentful semantic feature that may occur in nouns in all three formal subcategories of (7). Assuming [Count] to be a conceptual feature, I require Count nouns to have a specified value "singular" or "plural" in the syntax (non-Count nouns being semantically illegible if so specified). The discussion of number that follows refers only to Count nouns.

The feature [plural] for N is introduced as the head of a functional category NumberP (Ritter 1991, 1993). For suppletive plurals, a "low" Number, in addition to a regular "high" Number, has been motivated in the literature (Collins and Kayne 2020, Pesetsky 2013). Pesetsky proposes that a "numberless," morphologically singular, Russian noun becomes plural by "immediately" merging in the syntax with a paucal numeral, which is a "free-standing instance of NBR." (This explains its triggering plural agreement on the adjective it merges with.) I require Hindi "numberless" N-*ee*, if it is a count noun, to be specified in the syntax for a number value [SINGULAR] or [PLURAL]. I, thus, first add an entry (8iii) for the feature [SINGULAR], which has no phonetic realization, and modify the lexical entries (7i) and (7ii) for -*aa* and -*ee* as (8i) and (8ii).

(8) i. /-aa/ <=> N ii. /-ee/ <=> NBRLESS iii. [SINGULAR] <=> Ø
N

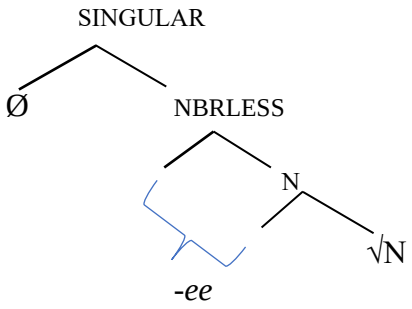
Let us say that the syntax projects the subtree (9). Both -*aa* and -*ee* qualify for insertion under N: (8i) is an exact fit, and (8ii) is a superset. (For spell out of N, √N moves out and up.)

(9)



By the Elsewhere (minimize junk) principle, (8i) *-aa* wins. This is what we want in the nominative projection (for non-plural, nominative, masculine N to be spelt out N-*aa* and not N-*ee*). In the oblique projection, however, a derivation where *-aa* merges will ultimately not converge, because of *-aa'*s [*u* [N-on-T]] feature. This allows an alternate derivation where numberless *-ee* merges, and the singular feature is separately spelt out (cf. (10)).[4]

(10)



How does *-ee* occur in the nominative projection, if it never matches the subtree (9)? Nothing prevents the syntax from projecting a structure that matches the lexical subtree (8ii). This structure is subject to a condition that a numberless count N needs to be specified for number (e.g., as in (10)). In the nominative projection, however, the independent singular feature is not available to *-ee* (as (9) privileges (8i)); but an independent (suppletive) plural feature is. I now address the question where the suppletive plural feature might merge with *-ee* by describing Number concord facts in Hindi, and return to *-ee* suppletion in section 10.2.

8 Number Concord and the Suppletive Plural in Hindi

Suppletion is often equated with idiosyncratic "lexical specification," but I adopt Collins and Kayne's (2020) suggestion that the suppletive plural is an "inner plural" PL1 that an "outer plural," the regular plural PL2, can select. Thus, PL1 is "lower than" the regular PL2. Where precisely PL1 merges seems vary in languages. In Russian, the paucal numerals trigger plural concord, so Pesetsky requires a "numberless" N to "immediately merge(s)" with a "free-standing instance" of Number (the plural projection) in the syntax.

[4] Sinha (2018:7) similarly underspecifies *-ee* for number (in a DM framework, his 13). He specifies *-aa* as [M.SG] (his (12)), but not "for direct case," because *-aa* occurs also in verb agreement, and "verbal agreement does not involve case features." To make *-aa* ineligible for the oblique projection, Sinha needs an impoverishment rule that deletes the singular feature in the oblique, "leading to the insertion of the underspecified *-e*" (his (14), [singular, oblique] → [oblique]). On my account, *-aa, -ee,* and *-ii* all have a case feature, but *-aa's* is more specific than [*u*/*α*case]; so that the other N-features may, but *-aa* must, check nominative as its case feature.

Hindi, however, has no number concord. Concord is with the N-stems *-aa*, *-ee*, and *-ii*. If a suppletive plural feature merges with *-ee* before an adjective does, *-ee* concord in the nominative would be (an exceptional instance of) "plural concord." Not only that: because *-ee* concord in the oblique is not plural concord, the "two *-ee*s" that I argue against would re-incarnated. I shall thus say that Hindi PL1 and PL2 both select the NP, i.e., the layer of the DP where N-stem concord takes place.

We have seen concord in the DP and the KP (adopting the term in Bittner and Hale 1996) in example (3), repeated as (11).

(11) a. gand-*aa* bandar-Ø / gand-*aa* paani-Ø aa-yaa
dirty-*aa* monkey-Ø dirty-*aa* water-Ø come 3M.SG.
'The dirty monkey came/ Dirty water came.'
b. gand-*ee* bandar-Ø/ gand-*ee* paani-Ø -koo mat chu-oo
dirty-*ee* monkey-Ø dirty-*ee* water-Ø -ACC. do not touch-IMP.
'Don't touch the dirty monkey/ the dirty water.'
c. gand-*ee* bandar-Ø aa-yee
dirty-*ee* monkey-Ø come-3M.PL.
'The dirty monkeys came.'

Adjectives (and the possessive phrase) show *-aa* concord with count (singular) and mass nouns in the DP (11a). In the oblique (KP), these same nouns trigger *-ee* concord (11b). But *-ee* concord also occurs in the DP (11c), and here it looks like "number concord," because N-*ee* occurs in the DP only as a masculine plural count noun. However, concord with a putative suppletive plural in (11c) is the sole instance of putative Number concord in Hindi. The regular Number suffixes do not trigger concord. In the DP (12), the feminine plural suffix on N-*ii* is *-ãã*, and on N-Ø, *-ẽẽ*; but the concording morpheme on the adjective is the N-stem *-ii* in (12a), and (12b) is illicit.

(12) a. us-k -ii acch -ii laṛk-iy-ãã / ããkh-Ø-ẽẽ
3P.-GEN.STEM-*ii* good-*ii* girl- F. -PL. (*ãã*) / eye -Ø-F.PL. (*ẽẽ*)
'His/ her good girls / good eyes'
b. *us-k-iy-ãã acch-iy-ãã laṛk-iy-ãã / *us-k-ẽẽ acch-ẽẽ ããkh-Ø-ẽẽ

In the KP (13), the plural suffix is *-õõ*, regardless of N's gender. The noun's modifiers do not show *õõ*-concord, but *-ee* concord or *ii*-concord, as in (13-14).

(13) a. us-k -ee acch-ee laṛk-õõ -koo/ bandar- õõ- k-oo deekh-oo.
3P.-GEN.STEM-*ee* good-*ee* boy-OBL.PL-ACC./monkey-OBL.PL-ACC. see-IMP.
'See his/ her good boys/ good monkeys.'
b. *us-k-õõ acch-õõ laṛk-õõ -koo/ bandar- õõ- k-oo deekh-oo.

(14) a. us-k -ii acch-ii laṛk-iy-õõ -koo deekh-oo.
3P.-GEN.STEM-*ii* good-*ii* girl-OBL.PL-ACC. see -IMP.
'See his/ her good girls.'

b. *us-k-õõ acch- õõ laṛk-iy-õõ -koo deekh-oo.

Thus, there is no concord with the regular plural suffix. Concord is with an N-stem *-aa*, *-ee* or *-ii*, and appears to be spelt out before N picks up its plural suffix. If *-ee* is marked a suppletive plural in the DP before concord occurs, *-ee* concord would be the sole instance of plural concord, and *-ee* concord with a suppletive plural (11c) would be different from *-ee* concord in the oblique (11b). (These data raise interesting questions that I do not enter into in this paper: is there a concord "phase" in the Hindi DP? Do Agree and Concord represent the same feature-sharing mechanism (Carstens 2000, Baker 2008, Norris 2011, Guisti 2011)?)

9 The Hindi plural morphemes: Number as a portmanteau morpheme

The Hindi plural suffixes evidently vary by case, but are thought to do so arbitrarily. Table 2 illustrates the Number vowel varying with Case; the four rows indicate noun subclass by gender, and overt/ covert spell out of the N-feature.

Table 2. Hindi singular and plural nouns, nominative and oblique

	Nominative		Oblique	
	Singular	Plural	Singular	Plural
Masculine 1	N-aa *laṛk-aa* 'boy'	N-ee *laṛk-ee*	N-ee *laṛk-ee*	N-õõ *laṛk-õõ*
Masculine 2	N-Ø *bandar* 'monkey'	N-Ø *Bandar*	N-Ø *bandar*	N-õõ *bandar-õõ*
Feminine 1	N-ii *laṛk-ii* 'girl'	N-ii-ãã *laṛk-iy-ãã*	N-ii *laṛk-ii*	N-ii-õõ *laṛk-iy-õõ*
Feminine 2	N-Ø *ããkh* 'eye'	N-ẽẽ *ããkh-ẽẽ*	N-Ø *ããkh*	N-õõ *ããkh-õõ*

The plural suffixes vary only with the two structural cases. The *-õõ* that occurs in the accusative KP in examples (13) and (14) occurs also in the genitive, ablative, ergative and vocative KPs (*bhai-(y)õõ aur behen-õõ*! 'Brothers and sisters!'). (Vocative case may be either direct or oblique in the world's languages, Hilda Koopman, p.c., 2014.) This follows from the accusative case feature being common to all oblique cases (Caha 2009). Caha does not specify the content of any of the case features, but Pesetsky (2013) does: accusative case is a V-feature. This explains an apparent coincidence of vowels in the Hindi accusative/ dative case marker *k-oo* and the oblique plural *-õõ*. The V-feature spells out the vowel *-oo* on the accusative/ dative case-stem *k-*, and in the oblique plural, the V-feature *-oo* hosts the nasal feature. Nominative case, I have argued, is [N-on-T], and masculine N is spelt out *-aa* or *-ee*. We may now notice that the overt vowels in the nominative vowels are *-aa* and *-ee*. In this analysis, case is transparently instantiated in the regular plural suffixes. The Hindi plural suffix specifies its vowel as a structural case feature nominative ("direct") or accusative ("oblique"). Only the nasal feature that rides on these case vowels

is lexically specified for Number, not the vowels themselves. The regular plurals are not merely "syncretic" but portmanteau case-and-number suffixes.

A word about genitive case is in order. In Caha's hierarchy, genitive intervenes between the accusative and the dative, but the latter two are syncretic in Hindi, entailing their adjacency.[5] Jayaseelan (2013, 2017: 518-520) points out that the Dravidian genitive is accepted as morphologically the "oblique stem," and illustrates that it occurs closer to the noun than dative/ accusative in Malayalam. He posits a hierarchy that manifests on the noun as GEN-ACC-DAT, i.e., the case hierarchy must allow for some variation.

Secondly, not all Hindi oblique cases overtly spell out the V feature on the case stem. Instrumental/ablative case *-see* and ergative *-nee* instantiate oblique as *-ee*, in perhaps a (yet-to-be-explained) spell out alternation *-ee/k-oo* seen also in the oblique pronouns, e.g., *us-ee, us-koo* (3SG.)*, mɛ̃-nee*, *mujh-koo* (1SG). Apparently, if the pronoun stem is "oblique" (incorporates a V-feature), the elsewhere N-feature *-ee* may suffix to it as the non-nominative case feature. The Hindi genitive clearly has both a V-feature and an N-feature. The V-feature manifests in the genitive pronominal stem (*us-*, not *wo*) and the occurrence of an oblique a case-stem *k-*. The N-feature manifests on the case head *k-* as agreement with the head N: *us-k-aa kutt-aa* (3OBL.-GEN.M. dog.M.) 'his/her/its dog,' *us-k-ii rooṭ-ii* (3OBL.-GEN.F. *roti*.F.) 'his/her/its *roti*.' (Possibly, an underlying V-feature is "elided," cf. Caha's (2013) discussion of "elision" of an underlying case during case-agreement.) Note also that Genitive is an oblique case in (i) Caha's case hierarchy, (ii) Dravidian: cf. Herur and Amritavalli (2022) for parallels between the Kannada genitive and the English *of*-genitive that do not hold for the English "Saxon genitive" *'s*, and Caha (2009:110) who notes that it is the English *of*-phrase that "shares the distribution of unambiguous genitives of other languages"), and (iii) in traditional analyses of Russian (mentioned by Pesetsky 2013, for whom Genitive is non-oblique, and the N-feature!).

10 The absence of the plural suffix vowels in verb agreement

In support of my claim that the plural suffix vowel is not part of the lexical spell out of Number, but a case vowel that gets specified on Number when Case is assigned, I now show that the number vowel of the nominative plural suffixes does not occur in the corresponding verbal number agreement morphemes. Subsequently, I attempt an account of the variety of nominative plural suffixes (section 10.1), and (in section 10.2) motivate suppletion in the nominative masculine as a failure of regular plural morphology in this paradigm (Kayne 2020, quoting a suggestion in Barbiers 2007).

Recall that only feminine nouns take the regular number suffix in the DP. Consider now number agreement with feminine plural nouns, comparing the singular agreeing forms of the verbs *uʈh-**ii,*** *khul-**ii,*** in (15a), with the corresponding plural forms *uʈh-**ĩĩ***, and *khul-**ĩĩ*** in (15b). The only difference between (15a) and (15b) is the addition of nasalization in (15b) on the "feminine singular" stem vowel *-ii*. The plural suffixes in (15b) are *ãã* and *ẽẽ* (on 'girls' and 'eyes' respectively), but the vowels *aa* and *ee* do not occur in plural verb

[5] As an anonymous reviewer had kindly pointed out.

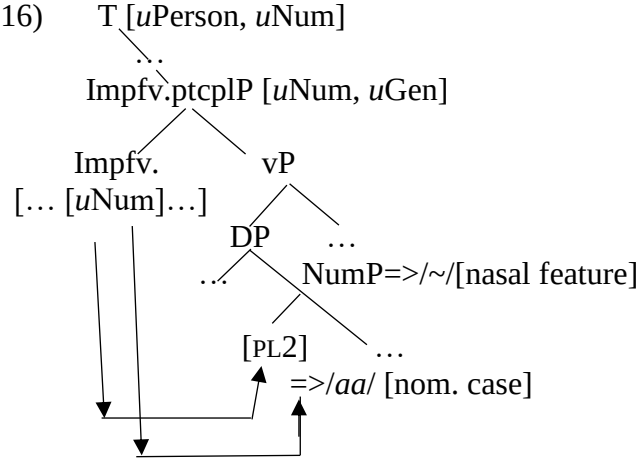
agreement; only the feature of nasality does, spelt out on the "singular" N-stem, as *ĩĩ*. Thus (15c), with surface identity of the plural suffixes and plural verb agreement, is illicit.

(15) a. us -k -ii acch-ii laṛk-**ii** uṭh **-ii** / ããkh-Ø khul- **ii.**
3P.-GEN.STEM-*ii* good-*ii* girl-F.SG. got up-F.SG/ eye.F.SG. opened-F.SG.
'His/ her good girl got up / His/ her good eye opened.'
b. us -k -ii acch -ii laṛk-**iy-ãã** uṭh **-ĩĩ / ããkh-Ø-ẽẽ** khul-**ĩĩ.**
3P.-GEN.STEM-*ii* good-*ii* girl-F.PL. got up-F.PL. eye- F.PL. opened-F.PL.
'His/ her good girls got up / His/ her good eyes opened.'
c.* us -k -ii acch -ii laṛk-**iy-ãã** uṭh- **iy-ãã /** ããkh-Ø-**ẽẽ** khul-Ø-**ẽẽ**.

Number agreement does not manifest the entire plural suffix shapes *(iy)-ãã* and (-Ø)-*ẽẽ*. It does not manifest the vowel of the plural suffix, but only a nasal feature, on the "feminine singular" verb. We noted earlier (section 8) the absence of number concord in Hindi. Plural agreement does occur in (15b), but it unpacks the plural suffix into a nasal feature and a vowel; in my analysis, it is a case vowel that is not integral to the Number morpheme. Nasality, on the other hand, is a robust feature of the Hindi regular plural (PL2), whether in the plural suffixes (oblique *-õõ,* "direct" *-ãã*, *-ẽẽ*), or in verb agreement *-ĩĩ* with the regular suffixes; whereas suppletive PL1 *-ee* has no nasal feature.

In (16), by the (classical) Agree algorithm for Hindi outlined in section 6, T's PTCPL complement successfully probes for a value for *u*Number (PL2), Agree takes place, and PL2 receives the nominative case feature [N-on-T]. N in the nominative case feature is invariantly spelt out as the default *aa*, and bears Num's lexical nasal feature.

(16)



Nominative Number is thus spelt out *ãã*, but the vowel is the outcome of nominative case assignment to the DP. It is not available when Num in the DP values Num at T; *u*Num's feature-valuation spells out only Number's lexical feature of nasality at T. In the spell out of plural verb agreement in (15), therefore, the nasal plural feature piggybacks on the N-feature "gender" vowel *-ii* that has been checked at ImpfvP.

Not all nominative plural suffixes in Table 1 are spelt out *ãã*, however. I now consider how the other spell outs of nominative number could occur.

10.1 The superficial shapes of the Nominative plurals

The nominative plurals vary according to N-features and their spell out: unlike the oblique plural, they are particular to the noun's gender and its overt/ covert expression. Nominative feminine plural suffixes have two shapes, *-ãã* or *-ẽẽ*, depending on whether the singular noun (*laṛk-ii, ããkh-Ø*) suppresses the spell out *ii* of its N-feature. In contrast, in the nominative masculine plural paradigm (17), the stem vowel is not pronounced on 'monkey' in (17b) in either the singular (N-*aa*) or the suppletive plural (N-*ee*). If Ø-stem nouns obey a simple rule "do not spell out the N-stem vowel," this would also delete PL1, the suppletive plural *-ee*, as a stem vowel, notwithstanding its function as a plural.

(17) a. laṛk-aa 'boy' ~ laṛk-ee 'boys'
b. bandar-Ø 'monkey' ~ bandar-Ø 'monkeys'

Why does the rule seem to not apply to feminine nouns like *ããkh-Ø*, to yield the (non-occurring) paradigm *ããkh-Ø, ããkh-Ø* 'eye, eyes' in (18)?

(18) *do not spell out N-stem vowel*: ããkh-~~-ii~~ =>Ø 'eye' ~ *ããkh~~-iy-ãã~~ => Ø

The plural in (18) is a regular number suffix PL2, spelt out as a nasal feature. If the deletion rule applies consistently, as expected, Num's nasal feature gets stranded, as both vowels *ii*, and *aa*, get deleted. A phonological repair rule thus seems to insert *-ee* as a dummy vowel for Num's nasal feature to manifest.

There are dialects of Hindi where the plural of *ããkh-Ø* does not undergo stem-vowel suppression, and surfaces with the expected plural suffix *-ãã*. For example, in classical Hindi poetry, the plural surfaces as *akh-iy-ãã*, suggesting that vowel length in the initial syllable is a factor in pronouncing *-ii*. In Dakkhini Hindi (on the other hand), null-marked masculine and feminine N both surface with *ãã* in the plural: *bandar(Ø)-ãã* 'monkeys,' *ããkh-(Ø)-ãã* 'eyes;' *admi-(Ø)-ãã* 'men, people,' *aurat-Ø-ãã* 'women;' *loog(Ø)-ãã* 'people,' *baat-Ø-ãã* 'words, speech,' arguing that the deletion rule is limited to stem vowels on roots in this dialect.

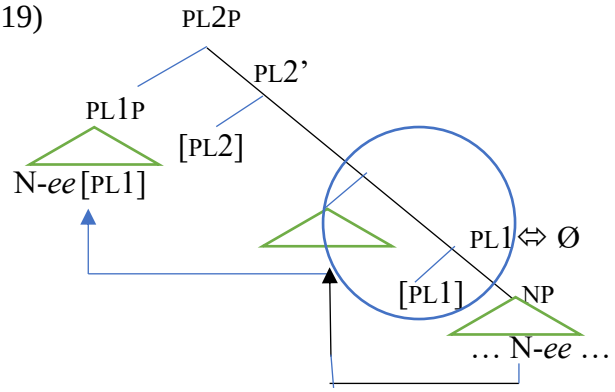
10.2. The suppletive masculine plural *-ee*

If "...suppletion applies when a regular morphological process is blocked for independent reasons..." (Kayne 2020, quoting Barbiers 2007), what is blocked in the NOM.M.PL, and why? What is blocked is **laṛk-aa-ãã* 'boys' (a default N feature on the N-stem and in the regular nominative plural suffix). (**Bandar-aa-ãã* 'monkeys' must also be blocked: if not, its derivation would parallel that of *ããkh* 'eye,' and yield **bandar-~~aa-ãã-ẽẽ~~* with the nasal feature of PL2.) Why is *-aa*$_{SG}$*-ãã*$_{NUM}$ blocked? I tentatively suggest a feature-clash when *-aa* with default number specification SG ("elsewhere number") morphologically combines with *-aa* spelt out under Num as a case vowel. Whereas *-ii*$_{SG}$ *-aa*$_{NUM}$ is fine, the vowel reiteration *-aa*$_{SG}$ *-aa*$_{NUM}$ appears to be illicit. Perhaps there is a general prohibition in languages against identical spell out of adjacent singular and plural feature values (or any

two different feature values).[6] (There is also a rule suppressing the reiterated spell out of the [N-on-T] case-feature *aa* on the N-stem, i.e., *N-*aa-aa*, *N-*ii-aa* in the singular, but it is unlikely that this is responsible for *N-*aa-ãã*.)

Given my assumptions about how N-*ee* merges in the syntax, an alternative derivation for Count noun as PL1 with this stem is available for masculine N. A Count noun is required to be marked singular or plural. N-*ee* in the nominative projection can combine only with a suppletive plural feature PL1, selected by PL2, as in (19).

(19)



In (19), N-*ee* merges with PL1 spelt out Ø, and moves up above this node for PL1 to be spelt out, as per Collins and Kayne (2020). PL1 moves up again above PL2, but PL2 is not spelt out on N-*ee* (neither its case vowel, nor its nasal feature, are spelt out: *N-*ee-ãã* (**lark-ee-ãã*), *N-*ẽẽ* (**lark- ẽẽ*). This is the difference between suppletive nominative masculine plural *-ee* and feminine plural *-ẽẽ* in *ããkh-Ø-ẽẽ*. In the latter, the number suffix is spelt out (but its vowel is deleted along with the stem vowel for this (class of) roots, and a resulting stranded nasal feature is supported by vowel insertion of *-ee*.)

Collins and Kayne (2020), motivating the PL1 - PL2 structure from Amharic (where an irregular plural suffix is spelt out inside the regular plural suffix), note that only PL1 is spelt out in English, for which they invoke a "No Crowding Condition:"

(20) (= their (27)) No Crowding Condition (relativized to formal features FF)

If X and Y both have FF, then if YP appears in the specifier of XP, X is not spelled-out.

This spell out condition applies in Hindi. As shown in (21), N-*ee* is a lexical N-feature that merges with the plural feature PL1. PL2 is a lexical plural feature that receives an N-feature by nominative case assignment. Thus, PL1 and PL2 are featurally identical in their case and plural features, and PL2 stays silent.[7]

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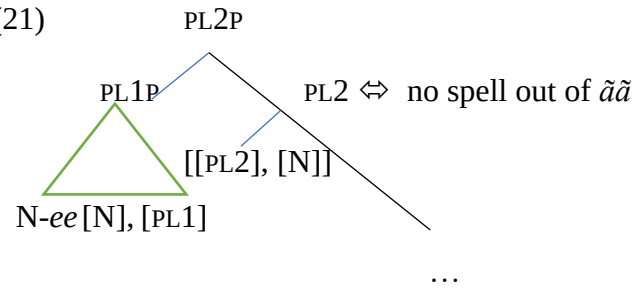
[6] Cf. *horses* (PL), *horse's* (GEN SG), *horses'* (**horses*-/iz/) (GEN PL).

[7] Conversely, singular *-ee* is absent in the oblique masculine plural: *lark-õõ*, **lark-ee-õõ*. Sinha (2018) explains this a general rule of *-ee* deletion preceding a back vowel (his (6)). Whether *ãã* deletion in the nominative plural, *-ee* deletion in the oblique plural, and the *-ee/ k-oo* alternation in oblique case spell-out noted in section (9), last paragraph, are three phenomena or facets of a single phenomenon is a question I leave open.

(21)



11. What Number-Case syncretism might tell us

That number and case syncretize is well-known (Blake 2001:18, Caha 2009: 73ff.). I have, for expository purposes, adopted a conservative Agree mechanism for the syncretism in the nominative, to show that the Hindi Number vowel is a case vowel. But there are larger questions at stake. Caha's (2009) syntactic account of case-syncretism (only adjacent nodes in the case hierarchy can syncretize) excludes number. He resorts to lexical specification of Finnish nominative-accusative plural *-t*, first spelling out Num, before its "phrasal lexical insertion."[8] For Hindi, this approach appears to require initial lexical specification of *ãã*, *õõ*, and *-ee* as Number, with some explanation offered for excluding the Number vowel from feminine plural verb agreement. This would miss out on a more general account of syncretism as restricted by a universal functional sequence.

Giusti (1995) suggested that case is part of the D-system in the DP. I have suggested (Amritavalli 2021) that the case hierarchy is integral with the functional heads Number and D(efiniteness) in the DP. Case and definiteness correlate in Hindi (Bhatt and Anagnostopoulou 1996), and in the Dravidian languages (which have "differential object marking"). In Bulgarian, where "full nouns bear only a nominative or accusative case suffix," "the distinction between nominative and accusative is made only with definite DPs" (Caha 2009: 34, and n. 22), reminiscent of Hindi. The Hindi absolutive object (termed nominative in Mohanan 1994) spells out Number as in the nominative, but does not tolerate pronouns, which must occur in the accusative; conversely, Hindi oblique plural *õõ* occurs only with overt ACC/DAT case *k-oo*; where *k-oo* fails to occur, so does *õõ* (Amritavalli 2019, 2021). It may be that objects in Bulgarian, can similarly appear in an absolutive case that is licensed by number and gender features only (excluding Person), whereas definite DPs require Person-licensing, as pronouns do, and appear as accusative.

12. Conclusion

I have tried to argue that the problem of the "two morphemes *-ee*" in Hindi has a bearing on four larger questions: (i) the nature of suppletion, (ii) the syncretization of Number and

[8] Baunaz and Lander assume adjacency of K and Num (in Hindi, Dem may intervene) to illustrate Latin *-ās* (ACC.FEM.PL.) target "the entire phrase [KP K [NumP Num]] … for spellout" (2018: sec. 3.1), claiming that phrasal spell makes it "possible to model portmanteau morphology as larger chunks of structure." This (and their German) example illustrates syncretism rather than a transparently portmanteau morpheme, and syncretism is again driven by lexical specification of its components.

Case in languages, (iii) the nature of Case, in particular, the structural cases nominative and oblique, and their occurrence in a hierarchy that may be integral with the functional hierarchy in the DP, and (iv) the nature of the categorial feature N, and its manifestations in the syntax. Suppletion is shown to be syntactic, not merely lexical, and to possibly occur late enough in the derivation to avoid an exceptional instantiation of suppletive plural concord in Hindi. Taking T's "phi-features" to be nominal head features may allow for a new understanding of nominative case as "direct" and not "oblique," and of feature-redundancy in concord and agreement (including "default agreement") as constituency indications, instead of an imperfection in language, i.e., the "doubling" of nominal features in syntactic feature-sharing provides clues to syntactic structuring and constituency (a point made by Norris 2011). Its overtness contrasts with the silence of a doubled set of nominative case features on DP heads such as N and Dem (but not Num) in my analysis of Hindi (perhaps by a condition similar to No Crowding, that silences PL2 when PL1 occurs). The factors that govern these choices of silence and spell out of redundant syntactic features, or of heads, which are perhaps central to the acquisition of spoken languages, remain to be addressed.

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