Hiaki verbal number suppletion really is suppletion
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Number-sensitive suppletion occurs in 10-15 Hiaki transitive and intransitive verbs, conditioned by the internal argument. Borer (2015) questions whether this pattern should be characterized as part of the grammar, suggesting (with Corbett) that such patterns are lexico-semantic in character—semantic restrictions on almost-synonymous but independent verbs, not forms in a single paradigm. In this talk I show that Hiaki suppletion is conditioned by interpretable, not formal, plural marking. I argue that it should nonetheless be considered a formal contrast, i.e. ‘paradigmatic’, on the basis of evidence from idiomatic interpretations, speaker intuitions, historical patterns in the language family, and adjectival reduplication. Expanding the dataset to other Uto-Aztecan languages suggests parallel patterning for reduplication and suppletion in other members of the family as well.

Previous work has shown that canonical phi-feature agreement marking and suppletive alternations are independent from each other, in languages where the difference can be observed, such that suppletive alternations are conditioned by ‘deep’ grammatical relations and phi-feature agreement is conditioned by ‘surface’ relations. I argue that this shows that root suppletion is not triggered by an Agree relation, but rather represents locally conditioned allomorphy at Late Insertion, as proposed by Bobaljik and Harley (forthcoming). This conclusion is supported by the fact that different suppletive allomorphs belong to different stem classes for readjustment rules, as shown in Harley and Tubino-Blanco (2013). Second, the parallel between root suppletion and reduplicative number marking in Uto-Aztecan suggests that these two phenomena deserve a parallel treatment, distinct from inflectional agreement.

1 Root suppletion: It matters

→ Is the phonological shape of a root crucial to accessing it?

→ I.e. is the indexing system that lets us look up lemmas irreducibly phonological?

→ If there are suppletive roots (as opposed to functional items), root individuation is not inextricably dependent on phonological shape.

→ Several researchers, for compelling conceptual reasons, have hypothesized that root suppletion is impossible.¹

→ I’ve argued (Harley 2014), along with Haugen and Siddiqi 2013, that root suppletion is not only possible, but robustly instantiated by number-sensitive suppletion in a range of languages, most crucially the Uto-Aztecan language Hiaki.

→ This characterization of participant-number-marking suppletion patterns has been rejected by many morphological theorists (Mithun 1988, Corbett 2000, Borer 2014, a.o.)

→ They hold that it’s more of a lexical semantic variation, kind of a classificatory verb thing, like the difference between toss and scatter, or kill and massacre, or run vs

¹ For discussion of what typical cases of suppletion look like, see Appendix A. For discussion of why root suppletion’s existence has been called into question within Distributed Morphology in particular, see Appendix B.
*stampede*. The Hiaki cases are simply pairs of closely-related lexical items in a complicated lexical semantic dance with each other.

→ **Main things I hope to accomplish in this talk:**
  a) Prove Hiaki participant-number verb suppletion really is suppletion,
  b) …and hence prove that the existence of a general ‘paradigmatic’ contrast is not necessary for suppletion to arise.

→ **Sub-goals, not all of which will be addressed here:**
  a) Outline some diagnostic tests for suppletion that might be useful elsewhere
     -historical patterns
     -ellipsis
     -focal contrast
     -idioms
     -speaker judgments
  b) Motivate distinction between interpretable number and formal number
  c) Show that Hiaki suppletion marks interpretable number
  d) Propose a treatment in terms of formal [±atomic] and interpretable [±aug]
  e) Argue that Hiaki suppletion is not the reflex of a syntactic Agree relation
  f) Show that there is a connection between suppletion and reduplication
  g) Differentiate between suppletion and readjustment rules
  h) Contemplate the development of Hopi constructed duals

→ **Overall morals:**
  ‘Paradigm’ not necessary to characterize suppletive phenomena
  Theoretical questions deepen and improve descriptive work, lead to discovery
  Trust your consultants!!

### 2 Participant-number-marking suppletion in Hiaki

→ **Hiaki** has a set of 15 verbs (give or take) whose form changes depending on the number of an argument.

(1) Hiaki participant-number marking verbs

<table>
<thead>
<tr>
<th>Intransitive</th>
<th>Transitive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sg. Subj.</strong></td>
<td><strong>Pl. Subj.</strong></td>
</tr>
<tr>
<td>weye</td>
<td>kaate</td>
</tr>
<tr>
<td>vuite</td>
<td>tenn</td>
</tr>
<tr>
<td>weama</td>
<td>relte</td>
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<tr>
<td>kivake</td>
<td>kiimu</td>
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<tr>
<td>yepsa</td>
<td>yaha</td>
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<tr>
<td>siime</td>
<td>saka</td>
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<tr>
<td>weche</td>
<td>watte</td>
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<tr>
<td>muuke</td>
<td>koko</td>
</tr>
<tr>
<td>kikte</td>
<td>hapte</td>
</tr>
<tr>
<td>yeesa</td>
<td>hooye</td>
</tr>
</tbody>
</table>
Variation of this type is called ‘suppletion’ by most fieldworkers who run into it in Uto-Aztecan.

Haugen & Siddiqi 2013 and Harley 2014 argue, partially on the basis of the Hiaki verbs in (1), that roots can exhibit suppletion, and hence that roots need to be individuated in the narrow syntax, not by phonology.

Outside DM, the idea that roots can supplet is uncontroversial.

But even theorists who believe roots can supplet don’t think that ‘verbal number’ cases like (1) are suppletion, for another very clear theory-internal reason.

Claim (Corbett 2000, Borer 2014 and references therein): In order for an alternation to be suppletive, it has to be part of a larger paradigm. I.e., they propose that something like the following holds:

Paradigmatic constraint on root suppletion: All or at least most members of the same syntactic category as the putative suppletive forms have to show paradigmatic oppositions for the features that condition the suppletion.

(2) Nouns:   sg, pl
             dog, dogs | person, people
Adjectives: absolute, compar/superl
            quick, quicker | good, better
Verbs:     present, past
            milk, milked | go, went
Verbs:     ±3
            run, runs | are, is (…am?)

Here’s a quote to this effect from Borer 2014, following Corbett 2000, and also citing Durie 1986; Mithun 1988; Bliss, 2004, summarizing better than I can what is at stake.

Whatever the merits of the claim that go-went are alternative phonological realizations of the same root, we note that it rises and falls on two facts: tense distinctions are typically realized in English, and there is, otherwise, no phonologically-related past tense form for go or a present tense form for went in present day English. To argue the case for suppletion in Hiaki, by analogy, what would be required is independent evidence that roots/verbs in Hiaki typically mark the number properties of their complements, and that in a sufficient number of cases, such marking is regular or possibly gives rise to contextual allomorphs. Against that background, the emergence of a handful of forms with a stem change would indeed appear to gain credence as a case of suppletion. However, no such evidence is available. What we are asked to subscribe to, then, is the claim that suppletion must exist in Hiaki and in Natural Language, in general, because of

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Note that the verb be in English, with its eight rather than five principal parts, shows contrasts that no other English verb marks, and it shows them via suppletion.
a putative grammatical distinction which is only realized through suppletion, but exhibits neither regular correlates, nor allomorphic ones.

For Corbett (2000), this profile adds up to the claim that such cases do not involve contextual realization, or 'suppletion' but rather, what is involved is verbal number marking which is not sensitive to context. Absent sensitivity to context, verbal number is typically taken to involve a change in the inherent meaning of the verb, or in traditional terminology, a lexical property ... and indeed, the vast majority of scholars who have considered the paradigm take it to involve two distinct verbs, and Veselinova herself remains rather skeptical that these are true cases of suppletion, by her criteria.

By analogy, one need only consider the English verbs murder and massacre side by side to see how extremely similar Content can give rise to distinct expectations concerning the number of object participants. But would we be justified in assuming that murder and massacre constitute alternative realizations of the same root, conditioned grammatically by the concrete or metaphorical number properties of the object? And if we do, would we be able to retain, coherently, any falsifiable generalizations concerning linguistic relatedness?

→ It is true that number is not an inflectional\(^3\) category on Hiaki verbs. No verbs other than the suppleting ones mark the number of their argument.

(3) No subject number marked on intransitive verbs
   Aapo/Vempo ama noite-k
   3sg/3pl there visit-PRF
   “She/they visited that place (and returned).”

(4) No subject or object number marked on transitive verbs\(^4\)
   Aapo/Vempo aapoik/vempoim ania-k
   3sg.NOM/3pl.NOM 3sg.ACC/3pl.ACC help-PRF
   “He/they helped him/them.”

→ Hiaki, a Southern Uto-Aztecan language of the Taracahitic subgroup, is not exceptional. Its ~15 suppletive verbs behave typically for the Uto-Aztecan family.

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\(^3\) Derivational alternations, like –\textit{ity} vs –\textit{ness}, are considered suppletive in Distributed Morphology, but not by folks who hold to the primacy of the paradigm for defining a space within which suppletion could occur; since derivational alternations are not paradigmatic in character. Some have contemplated the possibility that there could be causative suppletion in e.g. English, but again, the seemingly non-paradigmatic character of these alternations has made it hard for the claim to gain traction:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Causative</th>
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<tbody>
<tr>
<td>LEARN</td>
<td>teach–learn</td>
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<tr>
<td>EAT</td>
<td>feed–eat</td>
</tr>
<tr>
<td>COME</td>
<td>bring–come</td>
</tr>
<tr>
<td>FALL</td>
<td>drop–fall</td>
</tr>
<tr>
<td>DIE</td>
<td>kill–die</td>
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</tbody>
</table>

\(^4\) Object clitic pronouns are required to prefix to the verb, but they are (mostly) in complementary distribution with argument noun phrases, and are not mandatory, and co-occur with the suppletive transitive verbs, so do not constitute agreement marking on the verb.
In its 11 intransitive suppletive verbs, such as weye-kaate ‘go by walking,’ illustrated in (1) above, the suppletion-triggering argument is the subject of the verb:

(5) a. Aapo weye  
   3sg walk.sg  
   ‘He/she/it is walking.’

   b. Vempo kaate  
   3pl walk.pl  
   ‘They are walking.’

In its 4 transitive suppletive verbs, such as mea-sua ‘kill’, the suppletion-triggering argument is the object—the number of the subject makes no difference:

(6) a. Aapo/Vempo uka koowi-ta mea-k  
   3sg/3pl the.sg pig-ACC.sg kill.sg-PRF  
   ‘He/They killed the pig.’

   b. Aapo/Vempo ume kowi-m sua-k  
   3sg/3pl the.pl pig-pl kill.pl-PRF  
   ‘He/they killed the pigs.’

While it is true that Hiaki doesn’t have a paradigm slot for a formal number distinction on verbs, it is on balance wrong intuitively and also, I think, formally, to call these pairs two distinct verbs, or to compare them to murder vs massacre, or to Corbett’s other analogical cases from English run vs stampede, and scatter.

I will first review evidence suggesting ‘two distinct verbs’ for Hiaki verbal number:

- no formal number ‘paradigm slot’ for Hiaki verbs
- alternation conditioned by semantic number, not formal number
- forms can belong to different stem classes

But I will then argue that the alternation is still truly suppletive, two forms instantiating ‘the same verb’, because:

- numerically exact
- structurally restricted
- question/answer, sluicing ambiguity
- focal contrast on just number
- historical development, ‘incursions’ into open positions
- interaction of passive and number marking
- number-marking reduplication on attributive adjectives also marks semantic, not formal, number, and is fully productive
- reduplication and suppletion track semantic number in Hopi too
- idioms
- speaker intuition and descriptive characterizations of field linguists

2.1 Some important background: Number marking and pluralia tantum in Hiaki.

Hiaki cares about transitivity and number. A lot.
Nominal number and case is marked on the determiner/demonstrative, on the head noun, and on postposed and stranded adjectives in N-ellipsis constructions.

(7) Number and case on nouns, determiners/demonstratives, and adjectives:

a. Noun suffixes

<table>
<thead>
<tr>
<th></th>
<th>Nom</th>
<th>Acc</th>
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<tbody>
<tr>
<td>sg</td>
<td>Ø</td>
<td>-ta</td>
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<tr>
<td>pl</td>
<td>-(i)m</td>
<td></td>
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</tbody>
</table>

b. Dets Nom Acc

<table>
<thead>
<tr>
<th></th>
<th>Nom</th>
<th>Acc</th>
</tr>
</thead>
<tbody>
<tr>
<td>sg</td>
<td>(Hun)uu</td>
<td>(Hun)uka</td>
</tr>
<tr>
<td>pl</td>
<td>(Hun)ume</td>
<td></td>
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</tbody>
</table>

c. Lonely Adjs Nom Acc

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<tr>
<th></th>
<th>Nom</th>
<th>Acc</th>
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<tbody>
<tr>
<td>sg</td>
<td>Ø</td>
<td>-k/-ta</td>
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<tr>
<td>pl</td>
<td>-(i)m</td>
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</tbody>
</table>

All nouns must be marked for formal number, unless incorporated. Some nouns are pluralia tantum, including all mass nouns and some idiosyncratic count nouns:

(8) a. * supem 'clothes/piece of clothing'
b. * muunim 'beans/bean'
c. * sutum 'fingernails/fingernail'

Many Spanish borrowings are pluralia tantum, though some are not:

(9) a. * livrom ‘book/books’
b. * leentem ‘glasses’
c. * waantem ‘glove/gloves’
d. * saweam ‘pants/shorts’
e. * supem ‘blouse/dress’
f. * laapisim ‘pencil/pencils’
g. * mache’etam ‘machete/machetes’
h. chiiva chiivam ‘goat’
i. kava’i kava’im ‘horse’
j. laaven lavenim ‘violin’

I omit here discussion of genitive, which is present and distinct in certain pronominal forms but syncretizes with accusative everywhere else, and oblique, which seems to occur with certain pronominal forms in combination with postpositions but has not been adequately studied.
Evidence that number marking on pluralia tantum is purely formal comes from the compatibility of pluralia tantum plurals with numeral ‘one’, in contrast to plural-marking incompatibility with plural forms of regular count nouns:

(10)  a. Nee wepul supe-m hinuk
     1sg one dress-PL bought
     ‘I bought one dress’

     b. Nee wepul hiokareo-ta/*hiokareo-m hinuk
        I one writing.instrument'acc.sg/*writing.instrument-pl bought
        ‘I bought one pencil.’

(11)  Uuchi wepulai-m nee ya'a-ria.
     Again one-PL 1sg make-APPL
     "Make me one [tortilla] again"
     a pluralia tantum N

3 Things that might make you think these verbs are not suppletive

3.1 Non-suppletive verbs are not marked for number

→ Number is not a formal category marked on your average Hiaki verb, see examples (3) & (4) above.

3.2 Stem choice is conditioned by semantic, not formal, number

→ A key fact: In pluralia tantum cases, when the agreement-triggering argument is countable, the choice of verbal number disambiguates whether singular or plural is intended, regardless of the formal marking. That is, suppletive agreement is with the actual semantic number, not the formal number.

(12)  a. Veho’ori-m nas vui-vuite
     lizard-PL around RED-run.SG.PRS
     ‘The lizard is running around.’

     b. Veho’ori-m nas tet-tenne.
        lizard-PL around RED-run.PL.PRS
        ‘The lizards are running around.’

→ An even keyer fact: Formally singular but collective nouns trigger the plural form of the verb. Again, it’s semantic number, not formal number, that determines the alternation.⁶

⁶ A potential naturally occurring example of this type from Jason Haugen from our corpus:

i. Koowim, vu'u animal-ra-ta sua-k hunume'e.
   pigs many animal-collective-ACC kill.PL-PERF those (flies)
   'Pigs, and those (flies) also killed a lot of other animals'
Note that although formally singular, collective nouns crosslinguistically have special number properties, e.g. they can be the subject of verbs that (semantically) require nonsingular subjects like *The team gathered midfield* or *The committee will meet in the seminar room*. Diagnostic of [-atomic] properties. See Henderson (in prep) for further discussion.

The compatibility of plural suppletive verbs with singular collective nouns might make them seem similar to lexical-semantically plural-selecting verbs like *gather, stampede, massacre* and *scatter*, as Corbett suggests.

### 3.3 The two suppletive stems can belong to different stem classes

Harley and Tubino-Blanco 2013 show that Hiaki verbs fall into morphophonological stem classes, according to how they undergo derivational suffixation. (See Appendix C).

Suppletive verbs’ different stems can belong to different stem classes:

<table>
<thead>
<tr>
<th></th>
<th>#</th>
<th>Free form</th>
<th>Bound form</th>
<th>Stem class</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUN</td>
<td>sg</td>
<td><em>vuite</em></td>
<td><em>vuiti-</em></td>
<td>$e \rightarrow i$</td>
</tr>
<tr>
<td></td>
<td>pl</td>
<td><em>vitenne</em></td>
<td><em>viti-</em></td>
<td>$e \rightarrow i$</td>
</tr>
<tr>
<td>GO (pres)</td>
<td>sg</td>
<td><em>slime</em></td>
<td><em>sim-</em></td>
<td>Truncate</td>
</tr>
<tr>
<td></td>
<td>pl</td>
<td><em>saka</em></td>
<td><em>saka'a</em></td>
<td>Echo Vowel</td>
</tr>
<tr>
<td>WANDER</td>
<td>sg</td>
<td><em>weama</em></td>
<td><em>wee-</em></td>
<td>Truncate/EV</td>
</tr>
<tr>
<td></td>
<td>pl</td>
<td><em>rehte</em></td>
<td><em>rehti-</em></td>
<td>$e \rightarrow i$</td>
</tr>
<tr>
<td>BRING</td>
<td>sg</td>
<td><em>kivacha</em></td>
<td><em>kivacha-</em></td>
<td>Invariant</td>
</tr>
<tr>
<td></td>
<td>pl</td>
<td><em>kiima</em></td>
<td><em>kiima'a-</em></td>
<td>Echo Vowel</td>
</tr>
<tr>
<td>LIE</td>
<td>sg</td>
<td><em>vo'ote</em></td>
<td><em>vo'ote-</em></td>
<td>Invariant</td>
</tr>
<tr>
<td></td>
<td>pl</td>
<td><em>to'ote</em></td>
<td><em>to'ote-</em></td>
<td>Invariant</td>
</tr>
<tr>
<td>WALK</td>
<td>sg</td>
<td><em>weye</em></td>
<td><em>wee-</em></td>
<td>Truncate/EV</td>
</tr>
<tr>
<td></td>
<td>pl</td>
<td><em>kaate</em></td>
<td><em>kat-</em></td>
<td>Truncate</td>
</tr>
<tr>
<td>KILL</td>
<td>sg</td>
<td><em>mea</em></td>
<td><em>me'e-</em></td>
<td>Truncate/EV</td>
</tr>
<tr>
<td></td>
<td>pl</td>
<td><em>sua</em></td>
<td><em>sua-</em></td>
<td>Invariant</td>
</tr>
</tbody>
</table>

### 4 New evidence that Hiaki verbal number alternations are still suppletion, not separate verbs

A number of patterns point to the formal character of verbal number in Hiaki, justifying the term ‘suppletion’.

One, discussed in depth elsewhere, is the fact that the argument which triggers suppletion is crucially an internal argument, supporting the idea that suppletive competition (unlike lexical-semantic compatibility of the *meet* type) is subject to strict

4.1 Exactly 1 vs >1: Precision of contrast, truly complementary distribution

Verbs that Corbett brings up by way of analogy, in English: *run* vs *stampede; scatter*. He thinks of verbal-number suppletion like classifying verbs; verbs for handling flat objects, round objects, multiple objects…

*This illustrates clearly that some verbs require objects of particular types, and that being numerous is just one of these possible types. Thus it can be argued that we are not dealing with grammatical number any more than the other verbs require us to deal with ‘grammatical roundness’, it is simply a matter of the lexical meaning of the verb. ... This is understandable when we think of English verbs like scatter: in the intransitive use, one person cannot scatter, and two or three can hardly do so. Ten clearly can. Equally in the transitive use, one cannot scatter two seeds, nor perhaps three, but it is hard to say what the lower limit would be. Thus so-called plural verbs often require ‘multiple participants’, and do not show a strict singular–plural contrast as may be found with nominal number.*

This claim that participant number encoding does not reflect actual grammatical number comes up in Corbett’s discussion again and again: verbal participant number is not a strict singular/plural contrast, but rather looser, referring to ‘several’, etc.

*“Similarly Mithun (1988a: 213), giving North American data, again from a variety of sources, uses ‘one ~ group’ or ‘one ~ several’. Such glosses are more accurate and helpful than the ‘singular ~ plural’ shorthand which is often employed, hence the scare quotes in table 8.2 and elsewhere in this chapter” 250*

*“It makes good sense that the number of participants appropriate for using the ‘plural’ form would differ from verb to verb. This suggests it is part of the lexical meaning of the verb. Thus the relation of the verb to its subject or object with respect to verbal number is one of semantic compatibility (and not agreement), as noted in §8.2.2.” 251*

It IS strictly singular/plural for Hiaki suppletive verbs, 1 vs >1. There is no flexibility for the plural form, nor for the non-plural form (like *run, kill*), for that matter:

(14)  a. Heidi hichikia into palam ama ha’abwa-k *kecha-k
      Heidi broom and shovel there stand.PL-PRF stand.SG-PRF
      “Heidi stood the broom and the shovel over there.”

Though note that Harbour 2014 argues that the UG system of active, grammatical number features includes formal features with imprecise denotations, leading to ‘loose’ formal number systems, so even were it to be true of some language, it may not be an argument against number-conditioned suppletion in any case.
(15) Yooko [Hoan into Peo] tenni-vae *vuiti-vae
tomorrow John and Peter run.PL-PROSP run.SG-PROSP
‘John and Peter are going to run tomorrow’

→ That is, the two forms are in sharp complementary distribution. Their distributions do not overlap.

4.2 Passive, incorporation and number

→ There is a formal interaction between the stem of a suppleting intransitive verb and the (impersonal) passive morpheme: Only plural forms of verbs can be passivized, even in contexts where it seems very unlikely that the unexpressed agent is nonsingular.8

(16) Aman yahi-wa / *yevih-wa
There arrive.PL-PASS/ *arrive.SG.PASS.
"Arriving is happening there." or "People/they/someone is/are arriving there."

(17) a. Uu hamut ili usi-ta yu’u-sime
DET woman little child-ACC push-go.SG
“The woman is going along pushing the little child.” (in a stroller)

b. Uu ili uusi wam vicha yu’u-saka-wa
DET little child there toward push-go.PL-PASS
“The little child is being pushed along toward there.”

c. *Uu ili uusi wam vicha yu'u-sim-wa.
DET little child there toward push-go.SG-PASS

→ There’s a similar interaction between the number form of the verb and a numberless incorporated N in transitive suppletive verbs. The verb behaves as if the N is plural, though it is unspecified for number:

(18) a. Aapo kuchuta mea-k
He fish.acc.sg kill.sg-prf
"He killed a fish" ("He caught a fish")

b. Aapo kuchu-sua-k *kuchu-meak
He fish-kill.pl-prf fish-kill.sg.prf
“He fished.” (Lit: He fish-killed.)

8 Note that by-phrases, unfortunately, do not exist in Hiaki.
(19) Aapo kuchu-sua, taa kaita bwise.
    He fish-kill.pl but nothing catch
    “He’s fishing, but he’s not catching anything.”
    Lit: “He’s fish-killing, but he’s not catching anything.”

4.3 Identity under elision

→ Bobaljk (pc), also Gribanova (this conference) suggests that suppletive verbs, but not semantically conditioned alternations of the murder/massacre, run/stamped type, should retain identity under ellipsis:

(20) John went to the store yesterday, but Mary didn’t.
    ...
        Mary didn’t go
    ...
        *Mary didn’t went.

(21) a. The herd didn’t stampede yesterday, but Bossy did.
    b. The family wasn’t massacred there, but one farmer was.
    c. A man was murdered here, but his family wasn’t.

→ Hiaki doesn’t have VP-ellipsis, but it does have sluicing kinds of things, and fragment answers.

(22) Focal ellipsisy thing: mea–sua, ‘kill’
    Itepo ume toto'i-m hiva sua-k,
    We the.PL chicken-PL just kill.PL-PRF
    kaa uka kowita (…mea-k).
    not the.ACC.SG pig.ACC.SG
    "We only killed the chickens, not the pig."

(23) Focal sluicy thing:10 weyama–rehte walk
    Aapoik asoa-m wohmanni mecha-ka rehti-taite-k,
    3sg.GEN child-PL ten months-PPL walk.PL-start-PRF,
    taa Jasper e'e.
    but Jasper no.
    "Her children started walking at 10 months, but Jasper didn't."

9 Anyone know if this argument is out there in the literature for some other case of suppletion? It’s feeling kind of familiar but I can’t remember or find where from, if anywhere.

10 Also note that this last one is interesting because it's not VP ellipsis; if you leave out 'e'e' and use the sentential negator kaa, you have to include the verb (weyama-tek, walk.sg.start.prf). But whatever the structure is -- kind of a focus-sluice, I think -- it makes it clear that weyama-rehte are the same verb
(24) *Fragment answers: yepsa–yaha, ‘arrive’*

A: Havee yepsa-k?
    Who arrive.SG-PRF
    Who arrived?

B: Santos intok Maria (yaha-k).
    Santos and Maria (arrive.PL-PRF)

(25) *Fragment answers: vuite–tenni, ‘arrive’*

A: Havee vuiti-vae?
    Who run.SG-PROSP
    “Who is going to run?”

B: Jose intok Marcos (tenni-vae).
    Jose and Marcos (run.PL-PROSP)

(26) *Fragment answers: mea–sua, ‘kill’*

A: Havee-ta me’a-k ume emo ii’aa-me?
    Who-ACC kill.SG-PRF the.PL 3pl.REFL be.mean-S.REL
    “Who did the mean ones kill?”

B: Ramon(ta), Marcos(ta) into Peo.\(^\text{11}\)

4.4 *Focal contrast on number alone*

→ The form of the verb can be used to introduce a focal contrast that involves *only* the number of participants.

→ It’s like the correction in an English dialog like:

A: Who will go to the meet?
B: You mean, who *went* to the meet?

→ The thing in focus here is just the past tense, and everything else is semantically identical. The form of the verb accomplishes this.

→ This is not at all like the focal contrast here, which is on lexical-semantic content:

\[
\begin{align*}
\text{A: Who was killed?} & \quad \text{A: What was dropped?} \\
\text{B: You mean, who was } & \quad \text{B: You mean, what was } \\
\text{massacred?} & \quad \text{scattered?}
\end{align*}
\]

→ Same thing as with *go~went* in the Hiaki cases: Speaker B can use a different form of the verb to focus *just* the number, leaving all the other content the same.

\(^{11}\) Object case marking may be dropped from the first conjoined DPs in these fragment answers, and must be dropped from the final one.
Havee, ‘who’, can refer to a collective. It’s not ungrammatical to use it with a plural suppletive verb as long as you already know/presuppose the answer is a plural set. Out of the blue, it’s ungrammatical with a plural form, but with contextual support, it’s fine:

(27) Context: You hear a lot of voices outside the door
   a. Havee yaha-k?
      Who arrive.PL-PRF
      “Who arrived?” (plural group presupposed)

   Context: You know that multiple team members will attend a race.
   b. Havee tenni-vae?
      Who run.PL-PROSP
      “Who will run?” (plural group presupposed)

This makes it possible to use the plural forms as a correction or prompt or hint to an interlocutor, as follows:

(28) Context: Speaker A is wondering which teammate will run in the race.
   A. Havee vuiti-vae?
      Who run.SG-PROSP
      “Who will run?”

   B. Havee tenni-vae?
      Who run.PL-PROSP
      “Who all will run?”

Assuming Rooth-1993-type focus semantics tenne and vuite thus have to contribute exactly the same lexical content on every point except the focused element.

4.5 Diachronically, pressure seems to exist to fill the slots with unrelated verbs

Haugen and Everdell (2014) surveyed the suppletive verbs in different branches of Uto-Aztecan.

They found that the semantic fields that exhibited suppletion were constant across different branches of the language family.

…but that the forms were not all cognate!

That is, suppletive verbs like this can be reconstructed to Proto-Uto-Aztecan, but in some daughter languages, one of the members of the alternation was replaced by another verb, preserving the alternation but resulting in non-cognate alternators (‘incursion’ Juge 2000).
(The same way *si*- forms from *sindon* fell out of the Old English ‘be’ paradigm, some replaced by *be* forms from the *bēon* paradigm, others by expansion of *are*).

Consider this table comparing Hopi (Northern Uto-Aztecan) and Hiaki (Southern Uto-Aztecan) suppletive verbs, from Haugen and Everdell 2014:

<table>
<thead>
<tr>
<th>Suppletive verbs in Hopi and Hiaki</th>
<th>Hopi</th>
<th>Hiaki</th>
</tr>
</thead>
<tbody>
<tr>
<td>SG/DL.SUBJ.</td>
<td>PL.SUBJ.</td>
<td>SG. SUBJ.</td>
</tr>
<tr>
<td>'arrive'</td>
<td>pitu</td>
<td>öki</td>
</tr>
<tr>
<td>'be dancing'</td>
<td>wunima</td>
<td>tiiva</td>
</tr>
<tr>
<td>'be eating'</td>
<td>tuumoyta</td>
<td>noonova</td>
</tr>
<tr>
<td>'be lying down' (pres.)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>'descend'</td>
<td>haawi</td>
<td>haani</td>
</tr>
<tr>
<td>'die'</td>
<td>mooki</td>
<td>so’a</td>
</tr>
<tr>
<td>'enter'</td>
<td>paki</td>
<td>yungya</td>
</tr>
<tr>
<td>'fall'</td>
<td>póosí</td>
<td>lōhō(k-)</td>
</tr>
<tr>
<td>'get up'</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>'go, leave (pres.)'</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>'go, walk'</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>'go out'</td>
<td>yama(k-)</td>
<td>nōnga(k-)</td>
</tr>
<tr>
<td>'run'</td>
<td>wari(k-)</td>
<td>yūuttu(k-)</td>
</tr>
<tr>
<td>'sit, dwell'</td>
<td>qatu</td>
<td>yeese</td>
</tr>
<tr>
<td>'sleep'</td>
<td>puuwi</td>
<td>tookya</td>
</tr>
<tr>
<td>'stand up'</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>'walk around'</td>
<td>waynuma</td>
<td>yakta</td>
</tr>
<tr>
<td>SG./DL. OBJ.</td>
<td>PL.OBJ.</td>
<td>SG. OBJ.</td>
</tr>
<tr>
<td>'bring along'</td>
<td>wiiki</td>
<td>tsama</td>
</tr>
<tr>
<td>'bring in, put intoHopi'</td>
<td>pana</td>
<td>tangata</td>
</tr>
<tr>
<td>'kill'</td>
<td>niina</td>
<td>qöya</td>
</tr>
<tr>
<td>'put, place'</td>
<td>tavi</td>
<td>oya</td>
</tr>
<tr>
<td>'put on top'</td>
<td>tsokya</td>
<td>kwapta</td>
</tr>
<tr>
<td>'stand (s.t.) up'</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Although there has clearly been lots of change in one or the other daughter language, the parallelisms in the semantic categories which preserve suppletion are clearly not a coincidence.

Haugen and Everdell 2014 consider the pattern for KILL and DIE across the entire language family. Out of 21 languages considered in both the northern and southern

---

12 Though note that the Hiaki verb to *sleep* shows mandatory reduplication in the plural, unusually for a verb: sg. *koche*, pl *kokoche*, supporting the point about reduplication and suppletion being connected below. Worth checking for reduplicative forms in gaps in both languages…
groups, suppletion for DIE is attested in every language family except Aztecan. Of the 19 languages showing suppletion, 13 of the 38 possible forms, across 5 subfamilies (though most robustly in Numic), are not cognate with the reconstructed proto-Uto-Aztecan forms.

→ Proto-Uto-Aztecan was spoken between 5000-3000 years ago!

→ Uto-Aztecan participant number suppletion is persistent.

→ There is clearly pressure to fill a vacated suppletive slot with another verb form, just as in ‘paradigmatic’ cases of suppletion.

4.6 Idioms,

→ One can argue from idiomatic interpretations that suppletive forms belong to the same verb

(29) a. He will go to the store.   b. He will go crazy.
     a'. He went to the store.   c. He went crazy

→ Choi and Harley (submitted) give evidence like that about Korean honorific and negative suppletive forms.

→ Similar evidence can be found in Hiaki:

(30) a. Aapo yehte-k.
     3sg sit.down.sg-PRF
     “She/he sat down” or “She/he woke up/got up”
     b. Vempo hoote-k
     3pl sit.down.pl-PRF
     “They sat down” or “They woke up/got up”

(31) amae yehte~hoote, ‘change one’s mind, stand down from commitment’
     a. Tevan pahko-vae-n, ta ama-e yehte-k
     Steven fiesta-PROSP-P.IMPF but there-OBL sit.SG-PRF
     “Steven was going to hold a fiesta, but he changed his mind.”

     b. Ne-mak weeri-me pahko-vae-n,
     1sg-WITH relate-S.REL fiesta-PROSP-P.IMPF
     ta kaa ama yuma-kai, vena ama-e hoote-k
     but not there arrive-PPL, then there-OBL sit.PL-PRF

     “My relatives were going to hold a fiesta, but they couldn’t manage it, so they changed their minds.”
4.7 Semantic number tracked by reduplication on attributive adjectives

Here is the final thing that makes it seem almost certain to me that the suppletion we see in verbs is ‘formal’ in character.

Although number is not marked on verbs except suppletively, it is marked on adjectives.

As we saw above, adjectives get a plural or singular case/number marker in concord agreement with their head noun, when the noun is elided or the adjective is postposed.

Most of them can also get reduplicated in agreement with their head noun.

(32) a. uka tavu-ta tosai-k / uka tavu-ta tosai-ta
   the.ACC bunny-ACC white-ACC / the.ACC bunny-ACC white-ACC

b. uka tosai-k / uka tosai-ta
   the.ACC white-ACC / the.ACC white-ACC
   'the white one' (object)

c. ume taavu-m to-tosai-m
   the.PL bunny-PL RED-white-PL
   "The white bunnies."

d. ume to-tosai-m
   the.PL RED-white-PL
   "The white ones."

Importantly, when an adjective is modifying a pluralia tantum noun, the formal suffixal agreement tracks the formal number on the noun.

Reduplicative agreement tracks the semantic number of the noun.

(33) a. Ume supe-m  tewe-m  siute-k.
    The.PL shirt-PL  blue.SG-PL tear-PRF
    "The blue shirt tore."

b. Ume supe-m  te-tewe-m  siute-k
    The.PL shirt-PL  REDPL-blue-PL tear-PRF
    "The blue shirts tore."

That is, we see exactly the formal/semantic contrast marked regularly in adjectives.

One could not claim that the adjectives were ‘a different word’ in their reduplicated form, since one is derived from the other.

The parallelism of the phenomena show us that we have two kinds of number agreement happening in Hiaki, one with semantic number, and one with formal number.
Formal number and semantic number match in the majority of nouns but not all.

Where they come apart (collective nouns, pluralia tantum), we can see which marking is sensitive to which kind of number.

4.8 And more: Hopi constructed dual, speaker intuition

Hopi ‘constructed duals’ involve a contrast between external plural number marking and stem-based singular number marking; plural + singular creates dual.

Often the stem-based number marking is suppletive, though other times it’s reduplicative.

Works in clauses AND DPs (data and discussion in Slobodchikoff 2009):

(34) a. Nu’ hohonaqa.
    1.SG play.SG
    I am playing.

       b. Itam hohonaqa.
       1.PL play.SG
       We (two) are playing.

       c. Itam hohonaqa-ya.
       1.PL play-PL
       We (more than two) are playing.

(35) a. miʔ maana paki
    that.SG girl.SG enter.SG
    That girl entered

       b. mima maana-t paki
       those.PL girl.SG-PL enter.SG
       Those (two) girls entered.

       c. mima maman-t yĩŋ-yɑ
       those girl.PL-PL enter.PL
       Those girls (many) entered. (Jeanne 1978:73)

It cannot be the case that combining a lexical semantic specification for ‘multiple number”, like scatter has, with a singular count noun, could mark a formal dual! Usual analysis in terms of [-atomic, +min], each element sensitive to a different feature (Noyer, Nevins, Harbour, Slobodchikoff)
Finally, speaker intuition and descriptive characterizations of field linguists working on the language have said ‘suppletion’, though theorists have not.

When you perform a number mismatch in Hiaki, you don’t get a ‘oh, you should have used this other verb, it doesn’t mean that’ kind of reaction from your teacher. You get a ‘That’s an error’ reaction. It’s *These dogs is sleeping, not #Colorless green ideas.

5 Analysis

Need account that distinguishes two number features, one for formal number, say [±atomic] and one for semantic number, say [±aug].

Note that the verb is NOT in a formal Agree relation with the structural object; the verb takes its number from its thematic internal argument. Derived subjects or objects do not affect the choice of number for the verb:

(36) Santos Maria-ta ume koowi-m sua-ria-k
    Santos Maria-ACC.SG the.PL pig-PL kill.PL-APPL-PRF
    “Santos killed the pigs for Maria.”

Same in Huichol, where verbs DO enter into a formal Agree relation/paradigm with their surface objects. In Huichol, you can see formal number agreement with the surface object, as well as suppletive agreement with the thematic object (37). Note that when the two differ in number, the verb stem suppletion tracks the thematic object, not the formal object (Comrie 1982, as given in Corbett 2000):

   1.SG chicken 1.SG.SUBJ-2.SG.OBJ-kill.SG-BEN you
   ‘I killed you(SG) the chicken.’

   1.SG chicken 1.SG.SUBJ-2.SG.OBJ-kill.PL-BEN you
   ‘I killed you(SG) the chickens.’

Hiaki, and Huichol, are strictly NOM/ACC languages in terms of verbal case checking and (in the case of Huichol) inflectional agreement.¹³

Suppletive number, however, is conditioned by the internal argument in transitives and the subject in intransitives, i.e. it’s kind of erg/abs looking. This is at odds with the rest of the Agree-based operations in the language.

¹³ Corbett (20xx:yyy) cites data from Aronson showing that formal agreement and stem suppletion pattern in exactly this way in Georgian as well. So too do the facts from singular collective nouns.
(38) **Huichol: NOM/ACC number agreement, erg/abs suppletion**

a. Wan Maria maa-ti me-necti-mieni.
   Juan Maria and-SUBJ 3.PL.SUBJ-1.SG.OBJ-kill.SG
   ‘Juan and Maria are killing me.’

b. Nee Wan Maria maa-me ne-wa-qiini.
   1.SG Juan Maria and-N.SUBJ 1.SG.SUBJ-3.PL.OBJ-kill.PL
   ‘I am killing Juan and Maria.’

→ Corbett also cites Charley 1993 as saying the suppletive number marking on the verbs is the only indication of an ergative pattern in Comanche, also a Uto-Aztecan language.

→ The apparently universal connection to thematic argument position, and the conflict with Nom/Acc alignment, suggests an Agree-based analysis would be on wrong track; rather, Late-Insertion competition-in-context analysis like that in Bobaljik and Harley (forthcoming) is most appropriate.14

→ A question: Conflict in apparent default between the question cases and the incorporation/passivization cases. Neither entails the number corresponding to the verb form, but both have a default verb form.

→ Since the incorporation/passivization cases are completely constrained, unlike the question cases, I’ll assume they reflect the true default for verb roots; the ‘plural’ form is the unmarked case, and the singular form is inserted when the verb is sister to a [-aug] DP.

→ For nominal number, since plurality drives syncretism in the case/number marking across the board, I’ll assume the plural is the marked case.

(39) a. √RUN → vuite / [DP -aug] ________
    → tenne elsewhere.

b. [ -atom ] Num → -m
    → Ø elsewhere.

→ Could also explore an account where verbal and nominal number marking was sensitive to the same feature, but formal nominal number marking is a dissociated morpheme inserted following the root-insertion cycle, for pluralia tantum and collective nouns.

14 Though see Thornton 2015 for a proposal appealing to a low # affix, suggested in light of the fact that reduplication is affixal and can exhibit the same patterning as suppletive number marking in, e.g., Hopi. If the late-insertion analysis of suppletion is right, however, that tells us that reduplication is likely a readjustment rule, something that happens in the environment of certain kinds of plurals, but not something that it itself realizes a pl feature.
6 Conclusions

→ “Suppletion” is suppletion in Hiaki
→ ‘Paradigm’ not necessary to drive suppletive phenomena
→ Stem forms represent readjustment, suppletion represents stem competition (Harley and Tubino Blanco 2013)
→ Reduplication in Hopi and Hiaki behaves (semantically) like suppletion. Numic a fantastic test bed because reduplication interacts with dual marking in different ways in different family members (Haugen and Everdell 2014)

Some References
APPENDIX A: WHAT IS SUPPLETION?

→ Suppletion occurs when a single abstract morpheme—an abstract grammatical formative—has two or more morphophonologically independent allomorphs, whose appearance is conditioned by other properties of the immediate morphological/morphosyntactic environment.

→ Commonplace in inflectional and (under some theories) derivational exponents:

(40) Suppletion in English affixal morphology
("morphologically conditioned allomorphy")

<table>
<thead>
<tr>
<th>Exponent1</th>
<th>Exponent2</th>
<th>Exponent3</th>
<th>…</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLURAL</td>
<td>-s</td>
<td>-Ø</td>
<td>/sheep___</td>
</tr>
<tr>
<td>PAST</td>
<td>-ed</td>
<td>-Ø</td>
<td>/hit____</td>
</tr>
<tr>
<td>PTCPL</td>
<td>-ed</td>
<td>-Ø</td>
<td>/hit____</td>
</tr>
<tr>
<td>NOMAgent</td>
<td>-er</td>
<td>-Ø</td>
<td>/cook___</td>
</tr>
<tr>
<td>NOMEvent</td>
<td>-ing</td>
<td>-Ø</td>
<td>/murder___</td>
</tr>
<tr>
<td>ADJ&lt;Adj</td>
<td>-y</td>
<td>-ish</td>
<td>/devil___</td>
</tr>
<tr>
<td>NEG&lt;Adj</td>
<td>un-</td>
<td>in-</td>
<td>/possible___</td>
</tr>
</tbody>
</table>

→ Uncommon, but attested, in lexical categories in English

(41) Suppletion in English lexical categories

<table>
<thead>
<tr>
<th>Stem 1</th>
<th>Stem 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERSON</td>
<td>person</td>
</tr>
<tr>
<td>GOOD</td>
<td>good</td>
</tr>
<tr>
<td>BAD</td>
<td>bad</td>
</tr>
<tr>
<td>GO</td>
<td>go</td>
</tr>
<tr>
<td>BE</td>
<td>be(-) am, are, is, was, were</td>
</tr>
</tbody>
</table>

→ The forms are not connected via any phonological or morphophonological relationship recognizable from other alternations in the language.

→ Lexical suppletion arises diachronically when separate words ‘collapse’ into one, the stem of one forming the base for one part of a paradigm, the stem of another forming the base for another part.

→ It’s basically the problem of telling when two forms are two variants of the exact same lexical item, and when they’re two lexical items which are closely related in meaning. E.g. *person* vs. *people*, on the one hand, and *couch* vs *sofa*, on the other. Complementary distribution? Or not?

→ The existence of a language-wide paradigm contrasting for the feature in question is held to be criterial to the definition of suppletion for many theorists.
APPENDIX B: SKEPTICISM ABOUT ROOT SUPPLETION IN DISTRIBUTED MORPHOLOGY

→ DM theorists initially held that suppletion in lexical categories ought not to exist, and hypothesized that putative examples were actually functional categories, realizing UG-provided features (Marantz 1995, 1997)

→ Two main rationales for wanting to rule it out:
  i) Late Insertion: Purity of Essence for syntactic derivations
  ii) Acquisition: Overcoming mutual exclusivity heuristic is hard

Late insertion and suppletion:

→ Regarding i): Halle and Marantz felt that besides the empirical reasons to think that a realizational theory had to be right, a late insertion view was conceptually more pleasing too. It means the syntax can be about the syntax; no extraneous nonsyntactic elements like [p] or [hⁿ] or similar being dragged along throughout. Crucially, they felt the same should be true for nonsyntactic conceptual information; “Encyclopedic” content, a property of roots, should be inserted late as well, not present in the syntax, which demonstrably doesn’t care about it (Colorless green ideas sleep furiously, after all.)

→ Suppletion is clearly a case of conditioned exponent: If element X appears in environment Y, pronounce it [abc]. Otherwise, pronounce it [xyz].

→ But conceptually, roots shouldn’t have any content to distinguish them from each other at the output of syntax, since that content was extraneous to the syntax.

→ So late insertion of roots was seemingly subject to speaker ‘free choice’; you get to pick whether you say ‘cat’ or ‘dog’ depending on whether you want to talk about cats or dogs, not because the syntax has a node CAT or a node DOG in it. Syntax just has a √ node.

→ So since root insertion is free choice, then true suppletion of roots can’t exist. Suppletive allomorphy (like –en vs –ed for participle formation) is the effect of competition, and root insertion cannot be subject to competition!

Mutual exclusivity, no synonymy, and suppletion

→ Regarding (ii): Given a phonological unit, e.g. wug, how does a child identify its meaning?

→ Word-world mapping for some cases, e.g. nouns denoting basic-level middle-sized objects.

→ One key guiding heuristic that children can be shown to follow: “Mutual exclusivity”
(42) Mutual exclusivity: One label for each object, no synonymy. Constrains the
guesses about meaning kids make for novel strings.

Disambiguation: New string can refer to an unknown concept

Correction: New string picks out subset of extension of previously over-applied
string; extension of previous string retracts in consequence.

Rejection: New string isn’t a word if it seems to apply to existing named concept

Restriction: New string can’t refer to an already named concept, so conceptual
space is remapped

→ Mutual exclusivity should make it very hard, if not impossible, to acquire suppletive
variants of lexical roots

→ Every time a child hears a new phonological string, the first meaning guesses they
make about it will exclude all the meanings for strings they already have. Bett- simply
can’t mean what good means.

→ Obviously suppletion of functional items are true cases of synonymy: -en means PL
just as much as -s does. Similarly -en means PTCPL just as much as -ed does.

→ But for such cases, one could argue, the child’s guesses about meanings are sharply
constrained (even provided by) UG

→ They can map the existence of, and divine the meaning of regular forms. Then for
suppletive inflectional markers, transitional probabilities and morphosyntactic contextual
cues will be substantial enough that the child can recognize “HERE BE PARTICIPLE”
or “HERE BE PL” for irregular forms even without the consistent phonological cue
across contexts, and hence perform the expected mapping.

→ This is impossible in principle for roots/lexical items. The cues will say “HERE BE
VERB” or “HERE BE NOUN”, but the available search space for the semantics of the
novel verb or noun will be infinite, as opposed to the relatively finite set of UG-provided
contrastive features that form the basis for inflectional (or even derivational) categories.

→ So: Lexical roots cannot be suppletive: It’s a) unlearnable and b) requires nonsyntaxy
things in the syntax.

→ Marantz’s proposal: Suppletive items are all actually functional categories realizing
featural content provided by UG, not contingent and culturally dependent Encyclopedic
content provided by Sausurrean mappings.

→ Things like person~people realize an n_{[+Human]} node, e.g.: good~bett~best realize an
a_{[+Pos]} node, go~went a v_{[+Motion]} node.

In sum: The Marantz/Embick position
Deterministic choice of exponent in functional categories is handled well by morphological competition, because the grammatical/semantic content is so clearly specified.

Deterministic choice of exponent hard to implement for loosey-goosey lexical categories with Encyclopedic content.

Suppletion requires deterministic choice of exponent, i.e. competition.

Hence all suppletive elements are functional items.

**APPENDIX C: HIAKI STEM CLASSES**

When suffixed with derivational morphology, Hiaki verbs take a special ‘bound’ form. The types of bound form fall into several different groups, or form classes, summarized in the tables below (see Harley and Tubino-Blanco 2013 for a full discussion):

<table>
<thead>
<tr>
<th>Class 1: Truncation</th>
<th>Class 2: Echo-vowel</th>
<th>Class 3: Invariant</th>
</tr>
</thead>
<tbody>
<tr>
<td>free</td>
<td>bound</td>
<td>Engl</td>
</tr>
<tr>
<td>a. poona</td>
<td>pon-</td>
<td>‘pound’</td>
</tr>
<tr>
<td>b. miika</td>
<td>mik-</td>
<td>‘give’</td>
</tr>
<tr>
<td>c. bwase</td>
<td>bwase-</td>
<td>‘cook(intr.)’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subclass i: -e → -i</th>
<th>Subclass ii: e’e → -i’i-</th>
<th>Subclass iii: -u → -oe</th>
</tr>
</thead>
<tbody>
<tr>
<td>free</td>
<td>bound</td>
<td>Engl</td>
</tr>
<tr>
<td>a. hamte</td>
<td>hamti-</td>
<td>‘break(intr.)’</td>
</tr>
<tr>
<td>b. chihakt</td>
<td>chihakti-</td>
<td>‘smash’</td>
</tr>
<tr>
<td>c. yu’e</td>
<td>yu’i-</td>
<td>‘undo’</td>
</tr>
<tr>
<td>d. vui’te</td>
<td>vuiti-</td>
<td>‘run(sg)’</td>
</tr>
</tbody>
</table>

**APPENDIX D: SUPPLETION IS STRUCTURALLY RESTRICTED**

Harley, Haugen and Tubino-Blanco 2009, to appear, argue that suppletion is always conditioned by the number of an internal argument, never an external argument.

Two kinds of evidence suggesting this conclusion: The lexical-semantic properties of intransitive suppletive verbs and the interaction of intransitive suppletive verbs with the applicative.

Intransitive suppletive verbs are all motion and stance verbs, crosslinguistically some of the most likely verbs to behave unaccusatively (see also Veselinova’s hierarchy).

Intransitive suppletive verbs, unlike unergative intransitive verbs but like unaccusative intransitive verbs, are incompatible with the Hiaki high applicative:
(43) a. *Santos Maria-ta San Xavierle-u weye-ria
   Santos Maria-ACC San Xavier-to go-APPL
   “Santos is going/walking to San Xavier for Maria”

           b. Santos Maria-ta vetchi’ivo San Xavierle-u weye
           Santos Maria-ACC for San Xavier-to go
   “Santos is going/walking to San Xavier for Maria”
   (e.g. Santos is carrying out a vow Maria had made for a pilgrimage)

→ Transitive suppletive verbs are just fine with the applicative:

(44) Santos Hose-ta koowi-{ta/-m} {mea/sua}-ria-k
   Santos Jose-ACC pig-{ACC/PL} {kill:SG/kill:PL}-APPL-PRF
   “Santos killed a pig/pigs for Jose”

→ Unaccusative verbs, but not unergative verbs, have trouble with the applicative:

(45) a. *Uu tasa Maria-ta hamti-ria-k
    the cup Maria-ACC break:INTR-APPL-PRF
    “The cup broke for/on Maria”

           b. Uu yi’ireo ume uusi-m yi’-ria-k
           The dancer the.PL-child-PL dance-APPL-PRF
    “The dancer danced for the children.”

→ Pattern is explained if applicative verbs select for agentive external arguments. This
   would predict their ungrammaticality with unaccusative but not unergative verbs. If that’s
   right, then intransitive suppletive verbs are unaccusative.

→ Note that Veselinova (2006) shows that this ‘ergative-absolutive’ patterning for verbal
   number marking is cross-linguistically very general

→ Harley, Tubino Blanco and Haugen (2009) and Bobaljik and Harley (to appear) argue
   that this is a case of Bobaljik’s locality condition on the form of conditioned vocabulary
   insertion rules in DM

(46) Locality constraint on the form of Vocabulary Insertion rules, Bobaljik 2012:
    \( \beta \) may condition \( \alpha \) in (a), not (b):
    a. \( \alpha \ldots X^0 \ldots \beta \)
    b. \( \ast \alpha \ldots X^P \ldots \beta \)

→ See Harley, Tubino Blanco and Haugen (2009, to appear) and Bobaljik and Harley (to
   appear) for a full discussion.

→ Key point of interest: Would we expect this behavior with murder/massacre style
   lexical selectional restrictions for semantic number?
→ There seem to be agentive verbs that require plural or collective arguments when intransitive: kiss, hug, shake hands, reconcile

→ The fact that the alternation appears to be governed by a locality constraint suggests that it is rule-governed, i.e. created by a vocabulary insertion rule, as suggested by Bobaljik for other cases of (paradigmatic) suppletion. Not lexical-semantic.

Corbett 2000:258 on verbal number cases:

“...the relation between the forms is often said to be one of suppletion (as though the opposition were similar to English go ~ went), but this usage is misleading. We are not dealing with suppletion here. Rather we have two different verbs. The problem is that since nominal number is widespread as an inflectional category ... sometimes this view is imposed on verbal number forms, which are not inflectionally related.”