Deriving Allomorphy and Suppletion as PF-Idioms

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Introduction

Goals of the talk:

❶ Discuss cases where the trigger and the target of allomorphy are not part of the same word.

⤷ Develop diagnostics to distinguish cases of Agree and word-external allomorphy.

❷ Show that non-local allomorphy cannot be reduced to Head-Comp relations. Specfiers can trigger allomorphy on their heads.

❸ Show that this finding is problematic for a theory where possible and impossible allomorphy relations are accounted for solely in terms of structural locality.

❹ Present an alternative view according to which possible relations between a trigger and a target of relations are not (only) constrained by locality but also by syntactic selection.

  ↪ This view offers a treatment of allomorphy that is surprisingly similar to instances of idioms, which have also been claimed to be constrained in terms of syntactic selection.

Roadmap:

❶ Introduction: Verbal Suppletion in Hiaki

❷ Two Case Studies of "word-external" suppletion:

- Breton Rannigs
- Recipient-driven Suppletion in Malayalam

❸ Problems for a Locality-based Approach to Allomorphy/Suppletion

❹ A Selection-based Approach: Allomorphy/Suppletion as PF-Idioms

➤ The recent literature has offered a great number of different views on what constrains trigger and target relations of allomorphy and suppletion.

  ↦ See amongst many others Embick (2010), Bobaljik (2012), Merchant (2015); Moskal (2015); Božić (2017); Moskal & Smith (2016); Choi & Harley (2017); McFadden (2017); Smith et al. (2018)

➤ These discussions were, however, almost exclusively concerned with allomorphy relations inside of words.

➤ This is somewhat surprising because with "word-external" allomorphy, there might at least be some independent evidence for at least some of the proposed locality domains (such as phases).

➤ In this talk, I will present some instances of allomorphy whose trigger lies outside of the morphological word.

⤳ This will pave the way towards a deeper understanding of the possible and impossible structural relations underlying word-external allomorphy and ultimately allomorphy in general.

➤ In a recent paper by Bobaljik & Harley (2017), who discuss an instance of root suppletion in the Aztec language Hiaki. Approximately two dozen verbs in Hiaki show a phonologically unrelated form in the context of a plural argument.

(1)   Aapo vuite.
       3SG   run.SG
       'She is running.'

(2)   Vempo tenne.
       3PL   run.PL
       'They are running.'

Bobaljik & Harley (2017)

➤ Crucially, only internal arguments can trigger the suppletive form, transitive or unergative subjects cannot.
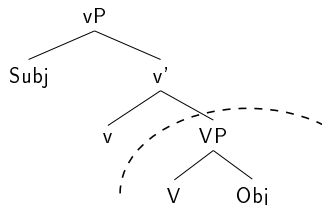
(3)   a.   Aapo/Vempo uka   koowi-ta   me'a-k
            3SG/3PL   the.SG pig-ACC.SG kill.SG-PRF
            'He/They killed the pig.'
     b.   Aapo/Vempo ume   koowi-m sua-k
            3SG/3PL   the.PL pig-PL   kill.PL-PRF
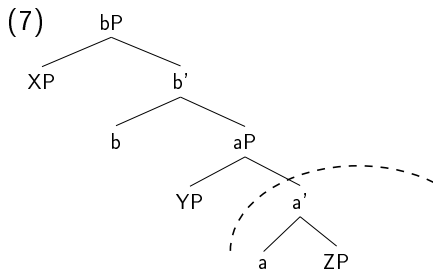   'He/They killed the pigs.'

Bobaljik & Harley (2017)

➤ The analysis they propose consists of two Vocabulary Items per verb, one of which is inserted in the context of a plural feature. By assumption, the contextual domain of the allomorphy is restricted to the sister of the verb.

(4)   Locality:
       β may condition α in (a),
       not (b):
       a. $\alpha...]_{X^0} ...\beta$
       b. $\alpha...]_{X^n} ...\beta$, where n>0

(5)

```
              vP
           /      \
        Subj       v'
                 /    \
               v       VP
                     /    \
                    V      Obj
```

(6)   Locality:
β may condition α in (a),
not (b):
    a. $\alpha...]_{X^0}$ ...β
    b. $\alpha...]_{X^n}$ ...β, where n>0

(7)

➤ In (7), only the complement ZP can trigger allomorphy on a^0.

    ↬ b^0 can trigger allomorphy on a^0 (and vice versa) iff a^0 head-moves to b^0 creating a complex X^0.

    ↬ Specifiers such as XP and YP can *never* trigger allomorphy, regardless of head-movement.

Case Studies

Breton Rannigs:

Breton has the typical Celtic VSO word order except for matrix clauses
which show V2 properties similar to Germanic languages.

(8) a. Yannig a lenn eul levr bemdez
         Johnny R reads a   book every.day
     b. Eul levr a lenn Yannig bemdez
         A   book R reads Johnny every.day
     c. Bemdez   e lenn Yannig eul levr
         every.day R reads Johnny a   book
         'Johnny reads a book every day.'

(9) An den a varvas a   vuoc'h
     the man R died   his cow
     'The man's cow died.'   Anderson 1981:31

(10)   D'ar   merc'hed e kasas   ar pakad-se
       to.the girls   R sent.3SG the package-this
       'He sent this package to the girls.'

(11)   Brav   e kavan   ar pezh-c'hoari-se
       beautiful R find.1SG the piece-play-this
       'I find this play beautiful.'   Rezac (2004:476)

➤ Even verb phrases or bare verbs can be moved to the preverbal
  position. Then the base position is filled with a dummy verb.

(12)   a.   Kouezhañ a ra   glav
            fall.INF   R do.3SG rain
            'It rains.'   Rezac (2004:464)
       b.   Debriñ krampouezh a raio   Yannig e Kemper hiziv
            eat   crêpes   R will-do Johnny in Quimper today
            'Johnny will eat crêpes in Quimper today.'

                                    Anderson (1981:30)

➤ The element of interest is the little particle glossed as R (for *rannig*). It immediately follows the fronted constituent and precedes the matrix verb.

⤳ The *rannig* occurs only when the matrix verb is occurs in second position but it is systematically elided when an object clitic occupies the same position (see Rezac (2004)).

⤳ The *rannig* occurs in two different forms: *a* and *e* and its alternation is not phonologically determined.

➤ According to a number of accounts (see e.g. Anderson (1981); Urien (1999); Rezac (2004); Jouitteau (2007)) the choice of *rannig* is governed by the category it precedes.

➤ Jouitteau (2005) argues that vPs in Breton are a derived nominal category (cf. the verbal noun construction in Irish).

   ↪ If we follow this claim, then we can say the alternation of the rannig governed by the categorical feature of the preverbal constituent

      • If the preverbal constituent is a nominal category, then the rannig appears as *a*.

      • Otherwise as *e* (*ez* in front of vowels).

➤ Rezac (2004) analyzes this alternation in terms of agreement. The functional head instantiated by the *rannig* probes for the syntactic category of its specifier.

➤ There are a number of reasons why this analysis is not satisfying (see discussion in Jouitteau (2007)) and why this alternation should rather be dealt with in terms of allomorphy:

  ❶ Agreement wrt syntactic category is virtually unattested crosslinguistically. Allomorphy wrt syntactic category is found all over the place.

  (13)   eat-ing   (14)   neat-ness
          V-NMLZ   A-NMLZ

❷ As other Celtic languages, any kind of agreement in Breton is subject to the complementarity effect (see e.g. Stump 1984): Only covert element trigger agreement (see (15)). This is clearly not the case with the rannigs. The element in the prefield is overt.

(15)   Levrioù a lenn (*lennont)   ar   vugale.
         books   R read (*read-3PL) the children
         'The children read books.'   Stump (1984:292)

❸ Breton has subject agreement with dropped pronouns, we can tell that actual agreement does not pattern with the the relation between the preverbal category and the verbal head.

(16)   D'ar   merc'hed e kasas   ar pakad-se
        to.the girls   R sent.3SG the package-this
        'He sent this package to the girls.'   Rezac (2004:476)

The *rannig* appears as *e* indicating a relation with a non-nominal constituent (i.e. the fronted PP) but the verb shows agreement with the dropped 3.PL subject. Thus, subject agreement is independent of the relation governing the form of the rannig.

❹ Jouitteau (2007) states that this *"type of agreement can never be made at a distance, designs it as a very peculiar Agree relation."*. If this were really an instance of Agree, we would expect to find any influence of postverbal constituents when no preverbal element is available.

↪ However, this does not happen, neither in the case of V1 or in the case of an expletive preceding the verb.

➽ All this evidence strongly suggests a simple analysis in terms of allomorphy along the lines in (17):

(17)   R ↔ /a/ /[$_{DP}$] _
         R ↔ /e/

➤ There is a general consensus that Breton is underlyingly VSO in all clause-types and that the V2-character of matrix clauses is then derived by an additional movement step of any given category (see Schafer 1995, Rezac 2004, Jouitteau 2005, etc.).

➤ There is no consensus about whether the V2-property is part of the T-domain or the C-domain though (C^0 in Schafer 1995, T^0 in Rezac 2004, Fin^0 in Jouitteau 2005).

  ↪ All the proposed analyses agree that the *rannig* is the spell-out of a given functional head and the preverbal constituent is generated by movement to the specifier of that very head.

(18)   Breton clause structure and the allomorphy relation:
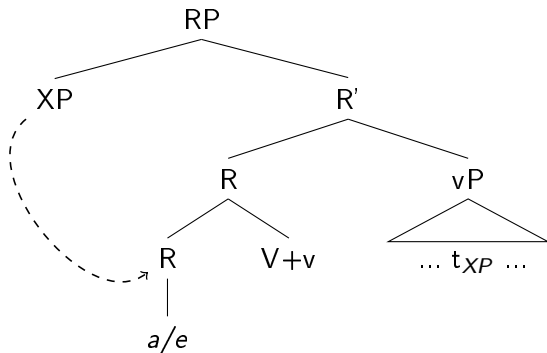
▶ Crucially for our purposes, the Breton case is remarkable because it is uncontroversially a specifier which triggers allomorphy as it is triggered by movement.

↳ This goes against the locality condition on allomorphy proposed in Bobaljik & Harley (2017).

Recipient-driven Verb Suppletion in Malayalam

Comrie (2003) notes that there are quite a number of languages where the verbs 'give' or 'say' supplete depending on the features of their indirect object

➤ One such case is the verb 'give' in Malayalam. If its indirect object is first or second person (sg or pl), the verb takes the form *tannu* and if the indirect object is third person, then the verb takes the form *koṭuttu*.

    (19)   a.   avan enikkə paṇam tannu.
                he   I-DAT money give-PAST
                'He gave me the money.'
            b.   ɲaan avanɲɲə paṇam koṭuttu.
                I   he-DAT money give-PAST
                'I gave him the money.'   Asher & Kumari (1997:439)

➤ The reverse is impossible. *tannu* cannot combine with a third person indirect object and *koʈuttu* cannot combine with a participant person indirect object:

(20)   a. *avan enikkə paɳam koʈuttu.
          b. *ɲaan avan<u>nn</u>ə paɳam tannu.   Hima S. (pers. comm.)

➤ This suggests that these verbs are not simply synonyms.

▶ Furthermore, the alternation extends to compound verbs such as 'teach' which is literally 'say-give'.

(21)   a.   Raadha kuṭṭikkə   padyam collikkoṭuttu.
                Radha   child-DAT poem   teach-PAST
                'Radha taught the poem to the child.'

                                     Asher & Kumari (1997:284)

         b.   Raadha enikkə padyam collittannu.
                Radha   I-DAT   poem   teach-PAST
                'Radha taught me the poem.'

         c. *Raadha enikkə padyam collikkoṭuttu.
                Radha   I-DAT   poem   teach-PAST
                'Radha taught me the poem.'   Hima S. (pers. comm.)

▶ This similarly suggests that *tannu* and *koṭuttu* are instances of the same abstract root.

➤ As with the case study from Breton, we have several good reasons to assume that this is not an instance of agreement:

  ❶ Malayalam does not exhibit any kind of ϕ-agreement with verbs.
  ❷ Dative arguments rarely agree at all crosslinguistically, and if they do, then accusatives and nominatives also do. But crucially, a first person nominative subject does not trigger the participant person allomorph.

  (22)   ɲaan avannə paɳam koʈuttu.
          I   he-DAT money give-PAST
          'I gave him the money.'

❸ The participant person allomorph *tannu* can also be triggered by the anaphor *tanikkə*. (23) is a case of indexical shift under a speech verb. In the embedded clause, the matrix subject is treated as a speaker and a reflexive pronoun referring back to the speaker triggers the participant allomorph *tannu*.

(23) Raaman$_1$ paraṇṇu ṭiiccar tanikkə$_1$ paṇam tannu   ennə.
      Raman   say-PAST teacher REFL.DAT money give.PAST QUOT
      'Raman$_1$ said that the teacher gave him$_1$ money.'
                                              Hima S. (pers. comm.)

↪ For the cognate reflexive *taan* in the sister language Tamil, Sundaresan (to appear) argues that it cannot trigger ϕ-agreement on the verb due to the *Anaphor Agreement Effect*.

↪ Thus, the relation between the verb and the indirect object must not be an instance of agreement.

➠ If the alternation on the verb 'give' is an instance of word-external suppletion, then the domain of context-sensitive spell-out must include the indirect object.

➤ Bobaljik & Harley (2017) briefly discuss the potential ability of indirect objects to trigger suppletion on the verb and state that if such cases exist, then they would be forced to assume that, in these cases the recipient argument is the first merged one in the VP.

↬ However, we have no reason to assume that the syntactic structure of the 'give'-VP in Malayalam is crucially different from other verb-final (scrambling) languages.

❶ There are a number of idioms and collocations involving the verb 'to give' and a fixed direct object but excluding the indirect object:

(24)   enikkə anugraham taraɲee
        I.DAT blessing   give.DEB.EMPH
        'Please give me your blessings.'   Asher & Kumari (1997:35)

↬ Given the general intuition that empty positions in idioms are impossible or at least very restricted, we can conclude that the indirect object is merged higher in these cases.

❷ Malayalam also has Pseudo-Noun Incorporation, a process that deletes
the accusative marker on a direct object under adjacency to the verb.
Pseudo-Noun Incorporation has been claimed to be possible only
under sisterhood of the verb and the direct object (see e.g. Massam
(2001); Dayal (2011); Baker (2014); Weisser (2017)).

(25)   acchaṇṇum   ammakkum   kuṭṭikkum
        father-DAT-COORD mother-DAT-COORD child-DAT-COORD
        vastraṇṇ-aḷ   koṭuttu
        cloth-PL.NOM give-PAST
        'I gave clothes to father, mother and child.'

                                                    Asher & Kumari (1997:143)

↪ If sisterhood of the verb and the direct object is required to enable
omission of the accusative, then the indirect object must be merged
higher than the DO.

➡ If we adopt a Larsonian VP-shell structure for obligatorily ditransitive verbs such as 'give', we can maintain a straightforward analysis where the verb suppletes based on the features of its specifier:

(26)
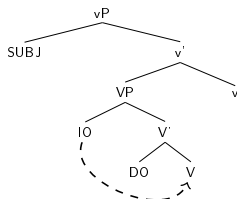
(27) $\sqrt{\text{give}} \leftrightarrow$ ta-   / [+Participant]
        $\sqrt{\text{give}} \leftrightarrow$ koʈu-

↬ Crucially, the domain of allomorphy still has to include the specifier.

Apart from these case studies, many syntactic approaches propose word-external allomorphy relations between a specifier and a head:

- Emonds (1986); Parrott (2009) argue that the subject form pronouns in English are the result of an allomorphy rule which changes their form when they are in SpecT.

- Sobin (1997); Parrott (2009) argue that in some Germanic languages, the coordination head $\&^0$ can trigger allomorphy on certain pronominal first conjuncts.

- Abney (1987) argues that the English D-head is phonologically zero when it's specifier is a pronoun (as opposed to a full DP).

Problems for a Locality-Based Approach

❧ There seem to be genuine cases where a rule relates a specifier and a head as the trigger and target of a word-external rule of context-sensitive spell-out (i.e. allomorphy).

↪ This means that Bobaljik & Harley's (2017) Locality Constraint on word-external allomorphy cannot be maintained.

↪ One immediate reaction to these counterexamples would be to go back to the original locality constraint proposed in Bobaljik (2012) which invokes the maximal projection XP as the locality domain for allomorphy rules affecting X:

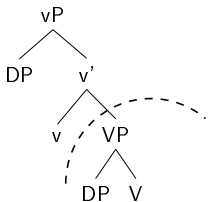(28)　　Original Locality Domain in Bobaljik (2012):
β may condition α in (a), not (b):

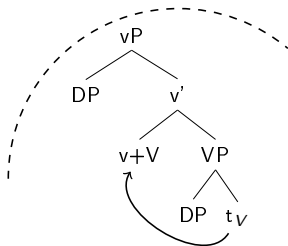a.　　$\alpha...]_{X^{\circ}} ...\beta$
b.　*$\alpha...]_{XP} ...\beta$

➤ However, simply allowing for specifiers to be part of the locality domain of allomorphy creates several problems:

❶ Head movement: Bobaljik & Harley (2017) note that they know of no case where head-movement extends the domain of allomorphy.

↬ If specifiers are allowed in the locality domain of allomorphy, then head movement would be expected to successively extend this domain:
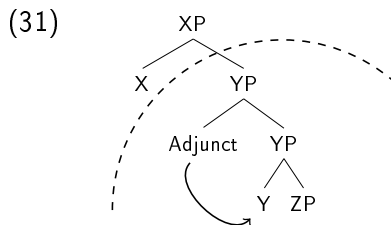
(29)

```
        vP
       /  \
     DP    v'
          /  \
         v    VP
             /  \
           DP    V
```

(30)

```
           vP
          /  \
        DP    v'
             /  \
          v+V    VP
                /  \
              DP    t_V
```

❷ Adjunct-triggered Allomorphy:
Depending on whether adjuncts can be adjoined to X'-levels or depending on one's definition of maximal projection, we would expect cases where adjuncts triggered allomorphy on a head X.

(31)

```
            XP
         /       ⌒ ⌒ ⌒ ⌒
      X        YP          ⌐
   /        /     \
         Adjunct     YP
                   /    \
                  Y     ZP
```

↬ However, no cases of adjuncts triggering allomorphy are attested unless they are attracted by some head selecting for a specifier (e.g. SpecRP in Breton).

❸ The Problem of Domains:
Increasing the size of locality domains can also be problematic since, in some cases, it is *only* the specifier of a given head that can trigger suppletion while the complement does not.

↪ In Malayalam, a first person direct object does not trigger suppletion of the verbal root 'give'.

(32)   Amma   acchan-nə   enne   koṭuttu.
         Mother.NOM father.DAT 1SG.ACC gave.PAST
         'Mother gave me to father (because she was tired of carrying me).'

Hima S. (pers. comm.)

▶ In Malayalam, it does not suffice to ensure that the allomorphy domain includes the indirect object. It is only the indirect object which can trigger verbal suppletion.

(33)
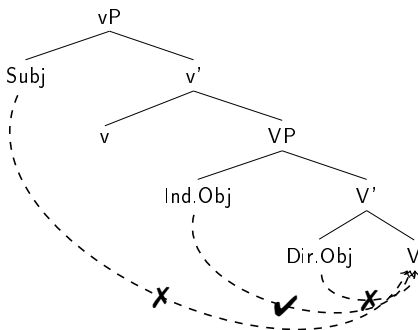
↪ Trigger-target relations of allomorphy relate two specific terminals. Thus, it is not adequate to invoke locality domains for contextual features. Allomorphy should be modelled as specific relations between a head and one of its arguments.

Allomorphy as PF-Idioms

The Selection Restriction on Allomorphy

➤ An theory which restricts possible rules of allomorphy purely in terms of locality fails to account for the fact that such rules seem to universally relate a head and one of its arguments.

  ⤳ The Head-movement problem
  ⤳ The Adjunct problem

➤ I argue however that we should restrict potential allomorphy relations not in terms of locality but in terms of c-selection:

(34)   The Selection Restriction on Allomorphy:
         α and β can trigger context-sensitive spell-out of each other if one selects the other.

➤ The Selection Restriction on Allomorphy ensures that allomorphy on a head can only be triggered by features on its arguments.

➤ This accounts for the patterns we have seen:

⤳ In Malayalam, the indirect object is c-selected by the verb and thus can trigger suppletion of the verbal root.

⤳ In Breton, the specifier of RP is attracted (and thus, by assumption, c-selected) by R^0, presumably by some kind of category neutral EPP feature. Thus SpecRP can trigger suppletion on R but not on the verb even though the verb head moves to R.

⤳ Similarly, with the cases of the Germanic pronouns, the heads T, D and $\&^0$ c-select their specifier and this selection relation allows for allomorphy rules to relate these positions.

➤ An approach in terms of selection straightforwardly accounts for the absence of allomorphy rules between a head and an adjunct in its minimal domain.

⤳ Adjuncts are not selected.

➤ And such an a account solves the head-movement puzzle.

⤳ A verb selects for its arguments inside the VP. Even if it moves to v, it still does not select for the subject. The subject is still selected by v. Thus, the subject can trigger allomorphy on v but not on the verbal root.

Allomorphy as PF-Idioms

➤ The Selection Restriction on Allomorphy is strongly reminiscent of proposed treatments of the interpretation of idioms.

➤ Bruening (2010) in fact proposes a completely parallel restriction on the formation of idioms:

(35)   The Principle of Idiomatic Interpretation:
        X and Y may be interpreted idiomatically only if X selects Y.
                                                    Bruening (2010:532)

➤ On an abstract level, idioms and instances of allomorphy are also
conceptually parallel:

- The parts of regular idioms receive a special semantic interpretation in
a given syntacto-semantic context
- Allomorphs and suppletive roots receive a special spell-out form in a
given morpho-syntactic context

➤ Parts of idioms require rules of context-sensitive interpretation
whereas allomorphs require rules of context-sensitive spell-out.

⤳ In a sense, instances of allomorphy and suppletion can be thought of as
PF-idioms.

➤ Under this view, it is no longer surprising that we find similar asymmetries with PF-idioms and (LF-)idioms:

• There is a well-known asymmetry with idioms that they often include the object but exclude the subject. The opposite is rarely attested or possibly unattested (see Bruening (2010); Harley & Stone (2013)).

  ↪ This mirrors the situation with verbal suppletion in Hiaki (and other languages like Choctaw (see Broadwell (1988))).

• The argument-adjunct asymmetry that adjuncts do not (or rarely) trigger context-sensitive interpretation or context-sensitive spell-out but arguments do.

- In ditransitive constructions, both arguments are selected and can thus participate in context-sensitive interpretation (*'give the devil his due'*). Non-selected beneficients, however, never participate in idioms.

  ↳ The same is found with PF-idioms. With lexical ditransitives, the indirect object can trigger allomorphy (see Malayalam above), with non-selected beneficients, the indirect object cannot.

Open Issues

❶ **More information in the context**

➤ The Selection Based PF-Idiom Approach solved two of the problems with a locality approach:

  • Head-movement does not extend the locality domain
  • Adjuncts do not trigger allomorphy

➤ That leaves us with the domain problem: In Malayalam, an element with is part of the locality domain of allomorphy *and* has the right features still does not trigger allomorphy because it is the *wrong* element in the domain.

  ↪ A first person direct object does not trigger verbal suppletion whereas a first person indirect object does.

➤ This problem is another parallel between idioms and cases of allomorphy. Parts of an idiom must have the correct selectional relations to yield an idiomatic interpretation.

(36)   a.   Peter lend Mary his ear.
        b. *Peter lend himself Mary's ear.

(37)   a.   Peter added fuel to the fire.
        b. *Peter added fire to the fuel.

(38)   a.   Peter promised Mary the moon.
        b. *Peter promised the moon a poptart

↪ It does not suffice to say that *the moon* receives an idiomatic interpretation if it is in the idiom-domain of *promise*. Rather, we must somehow ensure that *the moon* receives an idiomatic interpretation when it is the direct object of *promise*.

▶ One way to do this is enrich the contextual information available when the interpretation is determined. We can add structural information to the context to make sure that *moon* is the complement of *promise*.

▶ The same thing can be done to ensure that the participant person feature in Malayalam is located on the specifier of the suppletive verb, not on its complement.

(39) $\sqrt{\text{give}} \leftrightarrow$ ta-   / {+Part} [$_{V'}$ _
        $\sqrt{\text{give}} \leftrightarrow$ koʈu-

❷ **Idioms containing functional elements?**

➤ There are no (LF-)idioms involving a functional head (e.g. T) and an argument (e.g. the subject). But there are PF-idioms of that sort (see e.g. Breton).

⤷ Why is that?

➤ Presumably because functional heads lack semantic features which are necessary to trigger context-sensitive interpretation.

⤷ But they do have morphosyntactic features and thus can participate in PF-idioms.

❸ **The size of PF-idioms**

➤ In contrast to PF-idioms, (LF-)idioms can get arbitrarily large:

(40) Ich werde dir [$_{VP}$ zeigen, [$_{CP}$ wo   der Hammer hängt]].
      I   will   you   show   where the hammer hangs
      'I will show you who's boss.'

➤ Unlike with (LF-)idioms, instances of allomorphy only relate two heads. It is hard to imagine a case where a certain head takes an allomorph depending on the features of multiple elements.

➤ In order to derive examples of this sort, Bruening (2010) must assume an additional constraint:

(41)　　Constraint on Idiomatic Interpretation:
If X selects a lexical category Y, and X and Y are interpreted idiomatically, all of the selected arguments of Y must be interpreted as part of the idiom that includes X and Y.

↪ This constraint basically makes c-selection a transitive relation:
If α selects β and β selects γ, then α selects γ.

➤ For some reason, selection does not seem to be a transitive relation with PF-Idioms.

Conclusion

Conclusion:

➤ I showed two case studies of word-external allomorphy where the features on a specifier trigger allomorphy on the head it is selected by.

➤ These cases are clear counterexamples to the locality constraint on allomorphy proposed by Bobaljik & Harley (2017).

➤ We face a number of problems when trying to simply enlarge the locality domain. These problems suggest that structural locality is maybe not the right tool to define possible and impossible allomorphy relations.

➤ I sketched an alternative according to which allomorphy and suppletion are subject to the same syntactic constraints as idioms, namely a selection restriction that requires that the target and the trigger of an instance of allomorphy are a head and one of its arguments.

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Are there really no subjects triggering verbal suppletion?

- In Hopi Hale et al. 1991 (see also Toosarvandani (2016) on Northern Paiute), some intransitive, suppletive verbs do not fall into the same semantic classes as unaccusative verbs.

  ↪ Unclear whether the unergative-unaccusative diagnostics carry over to other languages.

- In Zapotec (Operstein (2017)), subjects quite clearly condition the shape of some verbal roots, even transitive verbs like 'kill' show allomorphy depending on whether the subject is a first person singular or not.

  ↪ But since Zapotec also exhibits subject agreement, the allomorphy trigger is quite plausibly the agreement affix on the verb rather than the subject itself.

(42) gu'n=j
      weep.non-speaker=3sg

(43) du'n=ã
      weep.speaker=1sg

Zaniza Zapotec, Operstein (2017), gloss mine

- As for Ainu, Oseki (2016) claims that plural ergative (i.e. transitive) subjects trigger root suppletion of the verb.

  (44)   a.   Sisak   rametok utarorke eci-ronnu.
                unusual brave   people   2sg=kill.pl
                'Unusually brave people killed you.'
        b.   Nea kur   kamiyasi rayke.
                the man monster kill.sg
                'He killed that monster.'   Oseki (2015)

  ↪ However, Ainu agreement shows person hierarchy effects. In order to determine the agreement target, we need to compare features of both arguments. Thus, plausibly, the ϕ-features of both arguments are present on v where they can trigger allomorphy locally (see Bank & Trommer (2017)).