## Class 11: Basehood

## To do for next time

- Read Anttila
- Finish Hawaiian assignment (due Wednesday, May 12 in class)

Plan for today: Let's talk about Catalan, then go through (1) and (2), then hear from Nathan about Albright's theory of basehood, then talk about the split base.

1. What qualifies as a base? (in B-A correspondence)

Benua (1994): "The base is the independent word identified with the string that undergoes morphological derivation [i.e., it's up to the morphology]; in affixation, the base is the word identified with the string adjacent to the affix. [...] Often, the base is the word that is minimally less morphologically complex than the derived word, so that the base consists of a subset of the derived word's morphemes. But this kind of subset relation does not always hold. An obligatorily inflected word can serve as the base of another inflected word, and the base's inflection is neither morphologically nor phonologically present in the derived word."

Kager (1996): "a form that is compositionally related to the affixed word in a morphological and a semantic sense. (The meaning of the affixed form must contain all grammatical features of its base.) Moreover, the base is a free form, i.e. a word. This second criterion implies that a base is always an output itself."

So, in the Palestinian Arabic case, the reason there's no base fihim to protect the first vowel from deletion in fhimna 'we understood', is that there is no freestanding word with a subset of fhímna's morphological features.

- Are these Polish data (Kraska -Szlenk 1995) a problem for Kager? ( $\mathrm{o} \rightarrow \mathrm{u}$ / closed syllable)

| 'cow' | Singular | Plural |
| :---: | :---: | :---: |
| Nom. | $\mathrm{kr}[\mathrm{o}$. wa | $\mathrm{kr}[\mathrm{o}$ ].wy |
| Gen. | $\mathrm{kr}[\mathrm{o}$ ].wy | kr[u]w |
| Dat. | $\mathrm{kr}[\mathrm{o}$. .wie | $\mathrm{kr}[\mathrm{o}$. .wom |
| Acc. | $\mathrm{kr}[\mathrm{o}$. we e | kr [o].wy |
| Inst. | $\mathrm{kr}[\mathrm{o}$ ].wa | $\mathrm{kr}[\mathrm{o}$. wami |
| Loc. | $\mathrm{kr}[\mathrm{o}$ ].wie | $\mathrm{kr}[\mathrm{o}$. wach |
| Voc. | $\mathrm{kr}[\mathrm{o}$. wo | $\mathrm{kr}[\mathrm{o}$ ].wy |
| 'cow'-diminutive | Singular | Plural |
| Nom. | $\mathrm{kr}[\mathrm{u}] \mathrm{w} . \mathrm{ka}$ | kr[u]w.ki |
| Gen. | kr[u]w.ki | kr[u].wek |
| Dat. | kr[u]w.ce | kr[u]w.kom |
| Acc. | $\mathrm{kr}[\mathrm{u}] \mathrm{w} . \mathrm{ke}$ | kr[u]w.ki |
| Inst. | kr[u]w.ka | kr[u]w.kami |
| Loc. | $\mathrm{kr}[\mathrm{u}] \mathrm{w} . \mathrm{ce}$ | kr[u]w.kach |

Benua proposes that the gen. pl. is derived from the nom. pl., but that morphological constraints prevent both suffixed from surfacing. (What's the other possible base for this form, and does that solve the problem?)

## 2. More examples from Benua-alternative explanations?

Portuguese (Rainier 1995):

| Singular <br> cão | Sg.Diminutive <br> cãozinho | Plural <br> cães | Pl.Diminutive <br> cãezinhos |  |
| :--- | :--- | :--- | :--- | :--- |
| flor | florzinha | flores | florezinhas | 'flower' |

Cibemba (Hyman 1994):

| Root | Causative | Causative-Applicative |  |
| :--- | :--- | :--- | :--- |
| leep | leef-i | leef-es-i | be long/lengthen/lengthen for |
| lob | lof- -i | lof-es-i | be extinct/exterminate/exterminate for |
| fiit | fis-i | fiis-is-i | be dark/darken/darken for |
| lil | lis-i | lis-is-i | cry/make cry/make cry for |

## 3. The split base

Steriade on French: 'liaison' can occur at a word-boundary hiatus:

| masc. |  | masc. liaison |  |
| :--- | :--- | :--- | :--- |
| nuvo mari | 'new husband' | nuvel ami | 'new friend' |
| bõ mari | 'good husband' | bon ami | 'good friend' |
| pœeti mari | 'small husband' | pœtit ami <br> porit | 'small friend' |

Some of these forms are hard to derive by pure phonology:

| /nuvo ami/ | *VV | MAX-V | DEP-C | IDENT(Vfeatures) |
| ---: | :---: | :---: | :---: | :---: |
| nuvo ami | $*!$ |  |  |  |
| nuv ami |  | $*!$ |  |  |
| nuvot ami |  |  | $*$ |  |
| : nuvel ami |  |  | $*$ | $*$ |

But Steriade notes that these liaison forms are just like the feminine forms:

| masc. | masc. liaison | fem. |  |
| :--- | :--- | :--- | :--- |
| nuvo | nuvel | nuvel | 'new' |
| bõ | bon | bon | 'good' |
| pœti | pœtit | pœetit | 'small' |

She proposes that the principle of lexical conservatism is higher ranked than, say, IDENT(Vfeatures)-IO, or any markedness constraints that are violated by inserting [1] instead of default [t]:

Lex C]: There is a listed allomorph of $\mu \mathrm{L}(\mu)$ such that if there is an absolute final C in the $\mathrm{T}(\mu)$ [target], C has an absolute final, featurally identical correspondent $\mathrm{C}^{\prime}$ in $\mathrm{L}(\mu)$.

| /nuvo ami/ | LEX C] | *VV | MAX-V | DEP-C | IDENT(Vfeatures) |
| ---: | :---: | :---: | :---: | :---: | :---: |
| nuvo ami |  | $*!$ |  |  |  |
| nuv ami | $*!$ |  | $*$ |  |  |
| nuvot ami | $*!$ |  |  | $*$ |  |
| nuvel ami |  |  |  | $*$ | $*$ |

This also explains why some words have no special liaison form:
masc. masc. liaison fem.
3oli 3oli 3oli 'new'

| /3oli ami/ | LEX C] | *VV | MAX-V | DEP-C | IDENT(Vfeatures) |
| ---: | :---: | :---: | :---: | :---: | :---: |
| 3oli ami |  | $*$ |  |  |  |
| 30l ami | $*!$ |  | $*$ |  |  |
| 30lit ami | $*!$ |  |  | $*$ |  |

And why it's not the case that the feminine allomorph has to be adopted wholesale:

| masc. | masc. liaison | fem. |  |
| :---: | :---: | :---: | :---: |
| PRJ $\int \tilde{\varepsilon}$ | profenn ~ profen | prosen | 'next' |
| $\operatorname{div} \tilde{\varepsilon}$ | $\operatorname{div}$ ह̃n $\sim \operatorname{divin}$ | divin | 'divine' |
| so | sot $\sim$ sot | sot | 'silly' |

Lex $\forall$ : There is a $\mathrm{L}(\mu)$, such that every segment in $\mathrm{T}(\mu)$ has a featurally identical correspondent in $\mathrm{L}(\mu)$

| $/ \operatorname{div} \tilde{\varepsilon}$ ami/ | LEX C] | *VV | IDENT(Vfeatures) |
| ---: | :---: | :---: | :---: |
| divẽ ami |  | $*!$ |  |
| div ami | $*!$ |  |  |
| divex $\forall$ ami | $*!$ |  |  |
| divẽn ami |  |  |  |
| divin ami |  |  | $*$ |

(Actually, Steriade does something a bit different from IDENT-IO—and there's lots more to the story...)

## 4. More split base: Burzio 1998

Argues that Italian adjectives (in -ivo) and agentive nouns (in -ore) and are based on both the infinitive and the past participle:


The analysis is complicated, but essentially Burzio argues that...

- Syncope in participles results from wanting to stress both the root vowel and the $-u t$ vowel, for O-O faithfulness reasons (that's why it happens only in the -ěre conjugation). This can force consonant deletions to avoid an illegal consonant cluster.
- Lexically variable syncope in derivatives only happens because both suffixes' vowels want to be stressed.
- Lexically variable "revoked syncope" (as in vìncitóre) happens because the root's vowel and the suffix's vowel both want to be stressed, so a "buffer syllable" is inserted to allow both to be stressed without clash. The it is an unstressed allomorph of the participial suffix, and the $c$ is recruited from the infinitive to preserve the coda status of the preceding $n$.
- Ascensore is a compromise in which the root vowel isn't kept stressed, but at least it's made heavy (by recruiting a segment from another allomorph).

5. Split base in Hebrew truncated imperatives: Bat-El 1999/2002

|  | Masculine |  |  | Feminine |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Future | TI | Normative Imperative | Future | TI | Normative <br> Imperative |
| 'to close' | ti-sgor | sgor | sgor | ti-sgeri | sgeri | sigri |
| 'to cut' | ti-gzor | gzor | gzor | ti-gzeri | gzeri | gizri |
| 'to remember' | ti-zkor | zkor | zxor | ti-zkeri | zkeri | zixri |
| 'to hurry' | ti-zdarez | zdarez | hi-zdarez | ti-zdarzi | zdarzi | hi-zdarzi |
| 'to approach' | ti-t-karev | tkarev | hi-t-karev | ti-t-karvi | tkarvi | hi-t-karvi |
| 'to undress' | ti-t-pafet | tpajet |  | ti-t-pasti | tpafti |  |
| 'to dress' | ti-t-labe $\int$ | tlabe $\int$ |  | ti-t-lab i | tlabji |  |
| 'to saw' | ti-tfor | tfor | tfor | ti-tferi | tferi | tifri |
| 'to guard' | ti-Smor | Smor |  |  |  |  |
| 'to write' | ti-xtov | xtov |  | ti-xtevi | xtevi |  |
| 'to open' | ti-ftax | ftax | ptax | ti-ftexi | ftexi | pitxi |
| 'to run away' | ti-vrax | vrax | brax | ti-vrexi | vrexi | birxi |
| 'to swear' | ti-Sava | t $\int$ ava | hi-Sava | ti- $\int a v($ P) $i$ | t a avi | hi-Savpi |
| 'to clear' | te-fane | tfane | pane | te-fane | tfani | pani |
| 'to turn' | te-sovev | tsovev | sovev | te-sovevi | tsovevi | sovevi |
| 'to tell' | te-saper | tsaper | saper | te-sapri | tsapri | sapir |
| 'to enter' | ti-kanes | tkanes | hi-kanes | ti-kansi | tkansi | hi-kansi |
| 'to refuse' | te-sarev | tsarev | sarev | te-sarvi | tsarvi | sarvi |
| 'to search' | te-xapes | txapes |  |  |  |  |
| 'to raise' | te-gadel | tgadel | gadel | te-gadli | tgadli | gadli |
| 'to take' | ti-kax | kax | kax | ti-kxi | kxi |  |
| 'to approach' | ti-ga | gas | gaf | ti-g $\int$ i | g i |  |
| 'to give' | ti-ten | ten | ten | ti-tni | tni |  |
| 'to sit' | te-Sev | Sev | Sev | te-Svi | Svi |  |
| 'to get up' | ta-kum | kum | kum | ta-kúmi | kúmi |  |
| 'to run' | ta-ruts | ruts | ruts | ta-rútsi | rútsi |  |
| 'to put down' | ta-sim | sim | sim | ta-sími | sími |  |
| 'to bite' | ti-nfax | tinfax | nefax |  |  |  |
| 'to breath' | ti-nSom | tinfom | nefom |  |  |  |
| 'to find' | ti-mtsa | timtsa | metsa |  |  |  |
| 'to erase' | ti-mxak | timxak |  |  |  |  |
| 'to dress' | ti-lbas | tilbas |  |  |  |  |
| 'to learn' | ti-lmad | tilmad |  |  |  |  |
| 'to dance' | ti-rkod | tirkod |  |  |  |  |
| 'to write' | ti-rSom | tirSom |  |  |  |  |
| 'to descend' | te-red | red | red | te-rdí | rédi | redí |
| 'to go away' | te-lex | lex |  | te-lxí | léxi | lexí |

(stress is final unless otherwise marked)

Bat-El's account:

- The colloquial imperative is subject to, in Alderete's terms, $\neg$ MAX (she calls it Truncation), but it doesn't want to violate ONSET or *CCC:

| ti + zkor | ONSET | $* \mathrm{CCC}$ | $\neg$ MAX | MAX |
| ---: | :---: | :---: | :---: | :---: |
| tizkor |  |  | $*!$ |  |
| izkor | $*!$ |  |  | $*$ |
| tzkor |  | $*!$ |  | $*$ |
| zkor |  |  |  | $* *$ |
| kor |  |  |  | $* * *!$ |

- Why [ti-kanes] > [tkanes]?
- Why the fricatives in [ftax], [vrax]? (normally, spirantization is $\mathrm{V} \_$_ $)$

As for [kax], Bat-El proposes that corresponding stressed syllables must be identical:

| ti + kax | ONSET | *CCC | $\neg$ MAX | FAITH-ब́ | MAX |
| ---: | :---: | :---: | :---: | :---: | :---: |
| tikax |  |  | $*!$ |  |  |
| ikax | $*!$ |  |  |  | $*$ |
| tkax |  |  |  | $*!$ | $*$ |
| kax |  |  |  |  | $* *$ |
| ax |  |  |  |  | $* * *!$ |

- What about [ti-kxí] $>$ [kxí] and [ti-t.fór] $>$ [tfór]?
- Any ideas for [ti-mxak] > [ti-mxak] and its ilk? What would be some good rival candidates?

This makes [te-rdí] > [rédi] a problem:

| te + rdi | SONORITY <br> SEQUENCING | DEP-V | ONSET | *CCC | $\neg$ MAX | MAX |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| terdi |  |  |  |  | $*$ |  |
| erdi |  |  | $*!$ |  |  | $*$ |
| trdi |  |  |  | $*!$ |  | $*$ |
| rdi | $*!$ |  |  |  |  | $* *$ |
| $*$ redi |  | $*!$ |  |  |  | $* *$ |

Bat-El proposes that this feminine imperative is under "paradigmatic pressure" from the masculine to exist. Under the split-base approach, I'd maybe prefer to say that the vowel isn't truly epenthetic, since it has a correspondent in the masculine.

Irregular verbs: lose their 1st consonant (usu. $j, n, l$ )
Some have a TI and some don't:

|  | Masculine |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Past | Future | TI | Normative <br> Imperative |
| 'to give' | natan | t-iten | ten | ten |
| 'to approach' | niga | t-iga | gas | gas |
| 'to take' | lakax | t-ikax | kax | kax |
| 'to travel' | nasa | t-isa | sa | sa |
|  |  |  |  |  |
| 'to descend' | jarad | t-ered | red | red |
| 'to go out' | jatsa | t-etse | tse | tse |
| 'to sit' | jafav | t-e $\int$ ev | Sev | Sev |
|  |  |  |  |  |
| 'to sleep' | jafan | t-ijan | tifan | jefan |
| 'to inherit' | jaraS | t-iras | tiras |  |
| 'to suck' | janak | t-inak | tinak |  |
| 'to create' | jatsar | t-itsor | titsor |  |
| 'to spit' | jarak | t-irak | tirak | jerak |

Bat-El proposes that the missing consonant wants to correspond to the first vowel in the future, which would then belong to the stem. But only in the third group is the correspondence a good one (some IDENT-type constraint allows no consonants to alternate with $i$ except $j$ ):

| ti-rák <br> $\mathrm{j}_{1}$ arák | ID(hi-C/V) | ONSET | MAXstem | $\neg$ MAX | FAITH- $\sigma$ | MAX |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ti 1 rák |  |  |  | $*$ |  |  |
| $\mathrm{i}_{1}$ rák |  | $*!$ |  |  |  | $*$ |
| trák |  |  | $*!$ |  | $*$ | $*$ |
| rák |  |  | $*!$ |  |  | $* *$ |

In the other groups, the correspondence is so bad that the vowel deletes:

| te-réd <br> $\mathrm{j}_{1}$ arád | ID(hi C/V) | ONSET | MAXstem | $\neg$ MAX | FAITH- $\sigma$ | MAX |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: |
| te $\mathrm{e}_{1}$ réd | $*!$ |  |  | $*$ |  |  |
| $\mathrm{e}_{1}$ réd | $*!$ | $*!$ |  |  |  | $*$ |
| tréd |  |  | $*$ |  | $*!$ | $*$ |
| réd |  |  | $*$ |  |  | $* *$ |

- How exactly do we evaluate MAXstem-what ensures that there's a violation in the truncated candidates?
- Is this really split basehood, or are we seeing a chain of derivation (does anything rule that out)?

Bat-El makes a similar argument for B-III forms like [t-azkir] > [tazkir], where the [a] belongs to the stem because it corresponds to the first vowel of the past [h-izkir].
"The unexpected number of syllables in the future base activates reference to the past form." (p. 673)

