Class 5
One last day on Axininca Campa

10/12/17

1 Intro

- **Last time:**
  - Analyzed the stress pattern without feet
  - Proposed an analysis of augmentation based on Base-Derivative faithfulness

- **Goal for today:**
  - Construct an analysis of reduplication that is:
    - consistent with the analyses of stress and augmentation,
    - doesn't use anything like SUFFIX-TO-PROSODICWORD
  - I haven't found a way around DISYLLABLE yet, but I might at least have a better analysis of the short V-initial roots

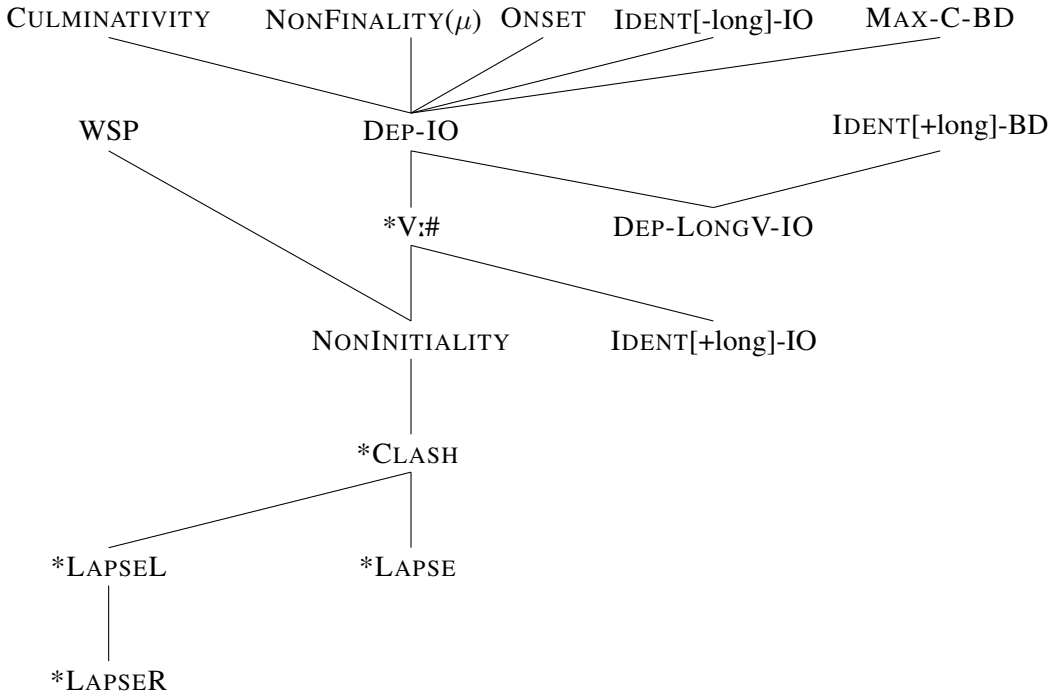
- The constraint that's going to do a lot of the work is IDENT[CV transitions]-BR:

(1) **IDENT[CV transitions]-BR:**
For each pair of segments which stand in Base-Reduplicant correspondence, assign a violation if one member of that pair is involved in a consonant-to-vowel transition and its correspondent is not involved in an identical consonant-to-vowel transition.

- This will ensure that
  1. BR-corresponding consonants are followed by the same vowel
  2. BR-corresponding vowels are preceded by the same consonant (if any)

- The rankings determined in the analysis of stress and augmentation are repeated here:

(2) Ranking summary for stress and augmentation



2 Reduplication

2.1 Data

(3) Axininca Campa Reduplication: C-initial roots (McCarthy & Prince 1993:63)

	Root	Gloss	Red w/o prefix	Red w/ prefix
a.	C-initial Long Roots ($\geq \sigma\sigma$ — when including final epenthetic V): Total Reduplication of Root, excluding Prefix			
	/kawo(o)si/	'bathe'	kawosi-kawosi	noŋ-kawosi-kawosi
	/t^{h}aaŋki/	'hurry'	t^{h}aaŋki-t^{h}aaŋki	non-t^{h}aaŋki-t^{h}aaŋki
	/kint^{h}a/	'tell'	kint^{h}a-kint^{h}a	noŋ-kint^{h}a-kint^{h}a
	/č^{h}ik/	'cut'	č^{h}ik*a*-č^{h}ika	noñ-č^{h}ik*a*-č^{h}ika
	/tasoŋk/	'fan'	tasoŋk*a*-tasoŋka	non-tasoŋk*a*-tasoŋka
b.	C-initial Short Roots ($\leq \sigma$): Total Reduplication of Stem, including Prefix			
	/naa/	'chew'	naa-naa	no-naa-nonaa
	/na/	'carry'	na*ta*-nata	no-na-nona
	/t^{h}o/	'suck'	t^{h}ot*a*-t^{h}ota	non-t^{h}o-nont^{h}o
	/p/	'feed'	p*aa*-paa	no-w*a*-nowa

(4) Axininca Campa Reduplication: V-initial roots (p. 63)

	Root	Gloss	Red w/o prefix	Red w/ prefix
c.	V-initial Long Roots ($\geq \sigma\sigma\sigma$ — when including final epenthetic V): Total Reduplication of Root except initial syllable (= vowel/diphthong), excl. Prefix			
	/osaŋkina/	'write'	osaŋkina-saŋkina	n-osaŋkina-saŋkina
	/osampi/	'ask'	osampi-sampi	n-osampi-sampi
	/oiriŋk/	'lower'	oiriŋk*a*-riŋka	n-oiriŋk*a*-riŋka
	/aacik/	'stop'	aacik*a*-cika	n-aacik*a*-cika
	/amin/	'look'	amin*a*-mina	n-amin*a*-mina
d.	V-initial Short Roots ($\leq \sigma\sigma$): Total Reduplication of Stem, including Prefix			
	/asi/	'cover'	asi‖asi	n-asi-nasi
	/apii/	'repeat'	api‖apii	n-apii-napii
	/ook/	'abandon'	ook*a*‖ooka	n-ook*a*-nooka
	/ak/	'answer'	ak*a*‖aka	n-ak*a*-naka

2.2 C-initial long roots

2.2.1 Underlyingly V-final

- CV(...)CV roots copy everything.
  - MAX-BR dominates relevant size restrictor constraints (e.g. INTEGRITY, since copying less could alleviate violations.
  - MAX-BR also dominates (some of) the (otherwise violable?) stress constraints, e.g. *LAPSE, since copying less could avoid lapses.
  - (INTEGRITY $\gg$ *LAPSE so that phonological copying can't be used to avoid lapses)

(5) CVCVCV roots, C-initial suffixes

/kawosi, RED, -wai-/		MAX-BR	INTEGRITY-IO	*LAPSE
a. ☞	kawòsi-kawòsi-wái-		6	*
b.	kawòsi-wòsi-wái-	*!*	4	

(6) Crucial ranking: MAX-BR $\gg$ INTEGRITY-IO $\gg$ *LAPSE

N.B.: Payne, Payne, & Santos (1982) don't give stress marks for reduplicative forms. I'm assuming that they follow the normal stress pattern.

2.2.2 Underlyingly C-final

- With C-initial suffixes: CV(...)C roots epenthesize at root-red juncture, and copy the epenthetic vowel, due to operation of CODACOND and MAX-BR.
  - No need to mention prosodic words, or even the MBase.

(7) CV(...)C roots, C-initial suffixes

INPUT: /tasoŋk, RED, -wai-/ MBASE: [tasoŋka]		CODACOND	DEP-IO	MAX-BR
a.	tasoŋk-tasoŋk-wai-	*!*		
b.	tasoŋk-asoŋk-wai-	*!		*
c.	tasoŋk-asoŋk*a*-wai-		*	*!
d. ☞	tasoŋk*a*-tasoŋka-wai-		*	
e.	tasoŋk*a*-soŋka-wai-		*	*!*

- Note that this output satisfies IDENT[CV transitions]-BR.

(8) CV(...)C roots, C-initial suffixes

INPUT: /tasoŋk, RED, -wai-/ MBASE: [tasoŋka]		IDENT [CV trans]-BR	CODACOND	DEP-IO	MAX-BR
a.	tasoŋk-tasoŋk-wai-	✓	*!*		
b.	tasoŋk-asoŋk-wai-	*!* [a, k]	*!		*
c.	tasoŋk-asoŋk*a*-wai-	*!(*) [a] ([k])		*	*!
d. ☞	tasoŋk*a*-tasoŋka-wai-	✓		*	
e.	tasoŋk*a*-soŋka-wai-	✓		*	*!*

- (8b) violates IDENT[CV transitions]-BR twice:
  - The RBase [a] is preceded by [t], but the Red [a] is preceded by [k]. This means that the corresponding [a]'s have different CV transitions, and thus incur a violation of IDENT[CV transitions]-BR.
  - The RBase [k] is followed by reduplicant-initial [a], but the Reduplicant [k] is not followed by a vowel, and therefore has no transitions. If having no transitions corresponding to some particular transitions violates IDENT[CV transitions]-BR, then this is a violation. *This is a moot point for the current example, but is important for V-initial roots.*
- (8c) definitively has the same violation for the corresponding [a]'s.
  - If the first root vowel did not happen to be /a/ (which matches the epenthetic vowel), then this candidate would also definitively violate IDENT[CV transitions]-BR w.r.t. the corresponding [k]'s.
  - *This isn't a problem here, but it is worth keeping an eye on down the road.*
- Notably, the winning candidate (8d) fully satisfies this constraint.

- For V-initial suffixes, IDENT[CV transitions]-BR becomes crucial.
  - It explains why you don't get candidate (9b), which copies fails to copy the root-initial consonant so as to avoid epenthesis altogether.
  - This candidate incurs violations for the corresponding [a]'s and the corresponding [k]'s.

(9) CV(...)C roots, V-initial suffixes

INPUT: /-tasoŋk, RED, -iro/ MBASE: [tasoŋka]	CODA COND	ONSET	IDENT- [CV trans]-BR	DEP- IO	MAX- BR
a. -tasoŋk-tasoŋk-iro	*!		*! [k]		
b. -tasoŋk-asoŋk-iro			*!* [a, k]		*
c. -tasoŋk*a*-tasoŋk-iro			*! [k]	*	*
d. -tasoŋk*a*-tasoŋka.-iro		*!		*	
e. ☞ -tasoŋk*a*-tasoŋka-*t*iro				**	

- **Note:** You can account for some of these facts using MAX-BR and MAX-BD constraints parameterized to C's and V's and ranked differently — see the Appendix. But this can't get you all the way.

2.3 V-initial long roots

2.3.1 Underlying V-final

- Selection of (10d) is somewhat over-determined.
  - MAX-BR has to be ranked below ONSET.
  - As long as MAX-BR ranks below one of IDENT[CV transitions]-BR and DEP-IO, then (10d) is selected.
  - DEP-BR ≫ MAX-BR can rule out (e) independently, making it a moot point how we assess violations for these two constraints for that candidate.

(10) VCVCV roots, C-initial suffixes

INPUT: /osampi, RED, -wai-/ MBASE: [osampi]	DEP- BR	ONSET	IDENT- [CV trans]-BR	DEP- IO	MAX- BR
a. osampi-osampi-wai-		**!			
b. osampi*t*-osampi-wai-		*	*! [o]	*	
c. osampi*t*-osampit-*a*wai-		*	*!* [o, t]	**	
d. ☞ osampi-sampi-wai-		*			*
e. osampi-*t*osampi-wai-	*!	*	*! [o]	(*)	

- Can't overapply *t*-epenthesis because of ALIGN-ROOT-L

(11) VCVCV roots, C-initial suffixes

INPUT: /osampi, RED, -wai-/ MBASE: [osampi]	ALIGN- ROOT-L	DEP- BR	ONSET	IDENT- [CV trans]-BR	DEP- IO	MAX- BR
a. ☞ osampi-sampi-wai-			*			*
b. osampi-*t*osampi-wai-		*!	*	*! [o]	(*)	
c. *t*osampi-tosampi-wai-	*!				*	

2.3.2 V-initial suffixes

- We might think that V-initial suffixes would allow *t*-epenthesis at the root+red juncture, as copying this *t* would fix the ONSET problem at the red+suffix juncture for free.
- This doesn't happen, because of IDENT[CV transitions]-BR:

(12) VCVCV roots, V-initial suffixes

INPUT: /osampi, RED, -iro/ MBASE: [osampi]	ONSET	IDENT- [CV trans]-BR	DEP- IO	MAX- BR
a. ☞ osampi-sampi-*t*iro	*		*	*
b. osampi*t*-osampit-iro	*	*!* [o, t]	*	

(13) Crucial ranking: IDENT[CV transitions]-BR ≫ MAX-BR

2.3.3 Underlying C-final

- IDENT[CV transitions]-BR is also sufficient to force *a*-epenthesis + copy in VCVC roots.

(14) VCVC roots, C-initial suffixes

INPUT: /oiriŋk, RED, -wai-/ MBASE: [oiriŋka]	CODA COND	ONSET	IDENT- [CV trans]-BR	DEP- BR	DEP- IO	MAX- BR
a. oiriŋk-oiriŋk-wai-	*!	*	* [k]			
b. oiriŋk-oiriŋk*a*-wai-		*	*!* [oi, k]	*!	*	
c. oiriŋk-oiriŋk-*a*wai-		*	*!* [oi, k]		*	
d. oiriŋk*a*-oiriŋka-wai-		**!			*	
e. ☞ oiriŋk*a*-riŋka-wai-		*			*	*

- This constraint derives the correct result for VCVC roots with V-initial suffixes as well.

(15) VCVC roots, V-initial suffixes

INPUT: /oiriŋk, RED, -iro-/ MBASE: [oiriŋka]	ONSET	IDENT- [CV trans]-BR	DEP- IO	MAX- BR
a. oiriŋk-oiriŋk-iro-	*	*!* [oi, k]		
b. ☞ oiriŋk*a*-riŋka-*t*iro-	*		**	*

- This interaction fixes the crucial ranking of IDENT[CV transitions]-BR over DEP-IO

(16) Crucial ranking: IDENT[CV transitions]-BR ≫ DEP-IO

- Consider such a case where the root-initial vowel and the suffix-initial vowel are identical.
  - This should remove the IDENT[CV transitions]-BR violation previously incurred w.r.t. the root-final consonant in a fully non-epenthetic candidate (17) (cf. (15a).
  - This clarifies the question of whether correspondence between no transitions and transitions violates the constraint: it must, since this is the only way to eliminate this candidate.

(17) V_αCVC root, V_α-initial suffix (hypothetical example)

INPUT: /iriŋk, RED, -iro-/ MBASE: [iriŋka]		ONSET	IDENT-[CV trans]-BR	DEP-IO	MAX-BR
a.	iriŋk-iriŋk-iro-	*	*! [i:Ø↔k]		
b. ☞	iriŋk*a*-riŋka-*t*iro-	*		**	*

2.4 C-initial short roots

- The way we derived the distribution of augmentation in the non-reduplicative cases was through MAX-C-BD.
- Once this takes effect in the reduplicative cases, it will simply be copied due to MAX-BR

(18) CV roots in reduplication

INPUT: /t^ho, RED, -wai-/ MBASE: [t^ho*ta*]		CODACOND	MAX-C-BD	DEP-IO	MAX-BR
a.	t^ho-t^ho-wai-		*!		
b.	t^ho*t*-t^hot-wai-	*!*		*	
c. ☞	t^ho*ta*-t^hota-wai-			**	
d.	t^ho*ta*-t^ho-wai-			**	*!*
e.	t^ho*ta*-ta-wai-			**	*!*

- These constraints correctly pick out just vowel epenthesis for /C/ roots w/ C-initial suffixes.
  - If we do indeed need a constraint DISYLL, then here we have evidence that it is ranked below DEP-IO.

(19) /C/ roots, C-initial suffixes

INPUT: /p, RED, -wai-/ MBASE: [p*aa*]		M	MAX-C-BD	DEP-IO	DISYLL	MAX-BR
a.	p-p-wai-	*!			*	
b. ☞	p*aa*-paa-wai-			*	*	
c.	p*ata*-pata-wai-			**!*		

(20) Crucial ranking: DEP-IO ≫ DISYLL

- We need additional constraints to get the length right.

(21) /C/ roots, C-initial suffixes

INPUT: /p, RED, -wai-/ MBASE: [p*aa*]		IDENT-[long]-BD	IDENT-[long]-BR	DEP-LONGV-IO	*LONGV	DEP-IO
a.	p*a*-pa-wai-	*!				*
b.	p*aa*-pa-wai-		*!	*	*	*
c. ☞	p*aa*-paa-wai-			*	**	*

- IDENT[long]-BR might turn out to be IDENT[long]-IR.

- When we bring back IDENT[CV trans]-BR, we generate the right pattern for V-initial suffixes as well.

(22) /C/ roots, V-initial suffixes

INPUT: /p, RED, -iro-/ MBASE: [p*aa*]		ONSET	IDENT [CV trans]-BR	DEP-IO	DISYLL	MAX-BR
a.	p*aa*-paa-iro-	*!		*	*	
b. ☞	p*aa*-paa-*t*iro-			**	*	
c.	p*aa*-p-iro-		*! [p]	*	*	

- This doesn't quite work in the case of accidental identity between the epenthetic vowel and the suffix, because IDENT[CV trans]-BR should be satisfied by the candidate that doesn't copy the epenthetic vowel (23c).
- This is easily solved by adding in ANCHOR-R-BR; this constraint was never violated in any previous winning candidates.

(23) /C/ roots, V-initial suffixes

INPUT: /p, RED, -aanc^{h}i-/ MBASE: [p*aa*]		ONSET	IDENT [CV trans]-BR	ANCHOR R-BR	DEP IO	DISYLL	MAX-BR
a.	p*aa*-paa-aanc^{h}i-	*!			*	*	
b. ☞	p*aa*-paa-*t*aanc^{h}i-				**	*	
c.	p*aa*-p-aanc^{h}i-			*!	*	*	

(24) Crucial ranking: ANCHOR-R-BR ≫ DEP-IO

2.5 Prefixed roots

- In the general case ("long" roots), prefixes are not copied.
- For C-initial roots, prefixes are copied only with roots of the shapes
  1. /C/
  2. /CV/
  3. /CVV/

  → (any C-initial root /CVC(...)/ doesn't copy prefixes)
- For V-initial roots, prefixes are copied only with roots of the shapes
  1. /V/
  2. /VV/
  3. /V(V)C/
  4. /V(V)CV(V)/

  → (any V-initial root /V(V)CV(V)C(...)/ doesn't copy prefixes)

- The preference to not copy prefixes comes from INTEGRITY$_{\text{AFFIX}}$-IO:

(25) **INTEGRITY$_{\text{AFFIX}}$-IO:** **[INTEGAFX]**
Assign a violation for each underlying affixal segment which has multiple correspondents in the output.

- **N.B.:** I assume that the MBase for all reduplicated forms to roots with prefixes is the prefix(es) + root in isolation, not just the root.
  - This will be necessary to avoid getting augmentation in prefixed /CV/ and /C/ roots.

2.5.1 Long roots

- For long C-initial roots, this can be satisfied fully
  - It conflicts only with MAX-BR, which it dominates.

(26) prefixed CVCVCV roots

/non, kawosi, RED, -wai-/		INTEGRITY$_{\text{AFFIX}}$-IO	MAX-BR	INTEGRITY-IO
a.	non-kawosi-nonkawosi-wai-	*!**		9
b. ☞	non-kawosi-kawosi-wai-		***	6
c.	non-kawosi-wosi-wai-		****!*	4

(27) Crucial ranking: INTEGAFX ≫ MAX-BR

- The same ranking motivates not copying the prefix in long V-initial roots.
  - This forces non-copying of the root-initial vowel, as per usual.

(28) prefixed VCVCV roots

INPUT: /n, osampi, RED, -wai-/ MBASE: [nosampi]		ONSET	IDENT-[CV trans]-BR	INTEG AFX	MAX-BR
a.	n-osampi-nosampi-wai-			*!	
b.	n-osampi-osampi-wai-	*!	*! [o]		
c. ☞	n-osampi-sampi-wai-				**

2.5.2 Short C-initial roots

- The first case in which the prefix gets copied is for short C-initial roots.
- Some constraint that is relevant here but not in the previous cases must outrank INTEGAFX in order to license copying of the prefix.
- It seems that this constraint must be something like M&P's DISYLL.

(29) **DISYLL**: ≈ Assign a violation if the reduplicant does not contain at least two syllables.

- If DISYLL ≫ INTEGAFX, we derive the right result — as long as the MBase is the prefixed root (non-t$^{\text{h}}$o) not the putative output root in isolation (t$^{\text{h}}$o*ta*).

(30) Prefixed CV roots

INPUT: /non, t^{h}o, RED, -wai-/ MBASE: [nont^{h}o]	DEP-BR	MAX-C-BD	DEP-IO	DISYLL	INTEG AFX	MAX-BR
a. ☞ non-t^{h}o-nont^{h}o-wai-					***	
b. non-t^{h}o-t^{h}o-wai-				*!		***
c. non-t^{h}o-*ta*t^{h}o-wai-	*!*		(**)			***
d. non-t^{h}o*ta*-t^{h}ota-wai-			*!*			***
e. t^{h}o*ta*-t^{h}ota-wai-		*!**	**			

(31) Crucial ranking: DISYLL ≫ INTEGAFX
Rankings by transitivity: DEP-IO ≫ DISYLL ≫ INTEGAFX ≫ MAX-BR

- It is crucial that the MBase be [non-t^{h}o] not [t^{h}o*ta*]. This is reiterated in (32).
  - If it was the reverse, (a–c) would all violate MAX-C-BD.
  - We know from earlier interactions that MAX-C-BD ≫ DEP-IO
  - If [t^{h}o*ta*] were the MBase, this would require augmentation.
  - Since this is not the case, and since assuming an MBase [non-t^{h}o] poses no problems, it must be the case that [non-t^{h}o] is the MBase.

(32) Prefixed CV roots (wrong MBase)

INPUT: /non, t^{h}o, RED, -wai-/ MBASE: [t^{h}ota]	DEP-BR	MAX-C-BD	DEP-IO	DISYLL	INTEG AFX	MAX-BR
a. ☹ non-t^{h}o-nont^{h}o-wai-		*!			***	
d. 💣 non-t^{h}o*ta*-t^{h}ota-wai-			**			***

- Note that assuming that the MBase is calculated with the prefixes attached will always negate the need for augmentation of the MBase.

(33) Non-augmentation of prefixed /CV/ roots

/non, t^{h}o/	NONFINALITY(μ)	DEP-IO
a. ☞ nón-t^{h}o		
b. non-t^{h}ó*ta*		*!*

- This must also be the case to avoid getting a long vowel in prefixed /C/ roots, w.r.t. IDENT[+long]-BD.

(34) Prefixed CV roots

INPUT: /no, o, p, RED, -wai-/ MBASE: [nowa]	IDENT-[+long]-BD	DEP-IO	DISYLL	INTEG AFX	MAX-BR	DEP-LONGV-IO
a. ☞ n-o-w*a*-nowa-wai-		*		**		
b. n-o-w*aa*-nowaa-wai-		*		**		*!
c. n-o-w*a*-wa-wai-		*	*!		**	

- If the MBase was [p*aa*], (a) would be ruled out by IDENT[+long]-BD.

- The last type of C-initial root that copies prefixes is /CVV/. This too is driven by DISYLL.

(35) Prefixed CVV roots

INPUT: /no, naa, RED, -wai-/ MBASE: [nonaa]		IDENT-[+long]-BD	DEP-IO	DISYLL	INTEG AFX	MAX-BR
a.	☞ no-naa-nonaa-wai-				**	
b.	no-naa-naa-wai-			*!		**

2.6 V-initial short roots

(36) V-initial Short Roots ($\leq \sigma\sigma$): Total Reduplication of Stem, including Prefix (p. 63)

Root	Gloss	Red w/o prefix	Red w/ prefix
/asi/	'cover'	asi‖asi	n-asi-nasi
/apii/	'repeat'	api‖apii	n-apii-napii
/ook/	'abandon'	ook*a*‖ooka	n-ook*a*-nooka
/ak/	'answer'	ak*a*‖aka	n-ak*a*-naka

2.6.1 Prefixed V-initial short roots

- Prefixed short V-initial roots copy the prefixes.

⇒ This difference relative to long V-initial roots is because of the interaction between DISYLL and IDENT[CV transitions]-BR.

(37) Prefixed VCV roots

INPUT: /n, asi, RED, -wai-/ MBASE: [nasi]		ONSET	IDENT-[CV trans]-BR	DISYLL	INTEG AFX	MAX-BR
a.	☞ n-asi-nasi-wai-				*	
b.	n-asi-asi-wai-	*!	*! [a]			*
c.	n-asi-si-wai-			*!		**

2.6.2 Unprefixed V-initial short roots

- I don't know what to do with these.
  - Given that /CVV/ roots (and /C/ roots augmented to C*aa*) allow for monosyllabic reduplicants, the ranking predicts that the same should happen here.

(38) Unprefixed VCV roots

INPUT: /asi, RED, -wai-/ MBASE: [asi]	ALIGN-ROOT-L	ONSET	IDENT-[CV trans]-BR	DEP-IO	DISYLL	MAX-BR
a. ☹ asi-<u>asi</u>-wai-		**!				
b. 💣 asi-<u>si</u>-wai-		*			*	*
c. asi-*t*<u>asi</u>-wai-		*	*!	*		
d. asi*t*-<u>asit</u>-*a*wai-		*	(*!)	**!		
e. *t*asi-<u>tasi</u>-wai-	*!			*		

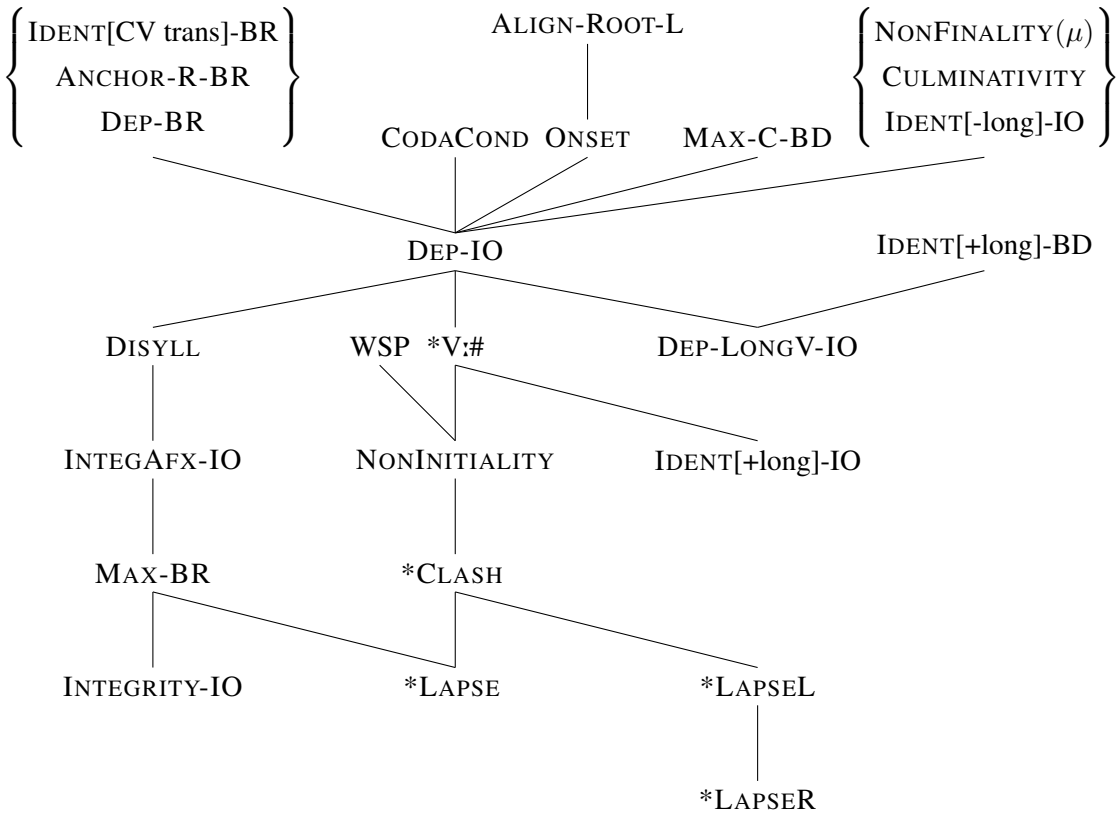
- M&P's solution is nonsensical.
  - · They claim that the RBase and the Reduplicant (+ suffixes) are parsed into separate PWds,
  - · and that constraints are somehow assessed only within PWds, such that the two ONSET violations in (a) are somehow equivalent to the one ONSET violation in the other candidates.

- M&P argue for the separate PWd analysis based primarily on two facts:
  1. Aberrant stress pattern: ási-<u>así</u>-wái- (M&P 90)
     - · They don't here differentiate primary and secondary stress. The stress on the reduplicant also doesn't make any sense.
     - · In Payne, Payne, & Santos (1982), they say that /si/ sequences are normally realized as [ʃ], even if it results in a coda. I'm super suspicious of this form. I can't figure out where M&P got it from, and it's the only one they give.
  2. Shortening: /apii/ → [ap**i**.-ap<u>**ii**</u>-wai-]
     - · This could be just a neutralization in length contrast under hiatus.
     - · Though it doesn't happen in monosyllables: /aa/ → [**aa**.-<u>**aa**</u>-wai-]
     - · So this does kind of look like the prosodic word facts

3 Summary

- We've been able to explain everything except the short unprefixed V-initial roots.
  - · Though M&P's answer doesn't really hold up
- We've done away with all mention to PWds
  - · This has been replaced by Base-Derivative faithfulness to a (hypothetical) surface form of the root in isolation, and IDENT[CV transitions]-BR.
- We couldn't do away with DISYLL.
  - · I would hope this has something to do with prosody, but if stress (generally) applies transparently to reduplicated forms, that's going to be almost impossible.

(39) Final rankings



- Under this analysis, it is not at all clear that there is some larger consistent organization of the grammar between "prosodic constraints" and "morphological constraints", as M&P claimed.

4 Appendix: Trying to do without IDENT[CV transitions]-BR

4.1 C-initial long roots

4.1.1 Underlyingly V-final

- CV(...)CV roots copy everything.
  - · MAX-BR dominates relevant size restrictor constraints (e.g. INTEGRITY, since copying less could alleviate violations.
  - · MAX-BR also dominates (some of) the (otherwise violable?) stress constraints, e.g. *LAPSE, since copying less could avoid lapses.
  - · (INTEGRITY ≫ *LAPSE so that phonological copying can't be used to avoid lapses)

(40) CVCVCV roots, C-initial suffixes

/kawosi, RED, -wai-/		MAX-BR	INTEGRITY-IO	*LAPSE
a. ☞	kawòsi-kawòsi-wái-		6	*
b.	kawòsi-wòsi-wái-	*!*	4	

(41) Crucial ranking: MAX-BR ≫ INTEGRITY-IO ≫ *LAPSE

N.B.: Payne, Payne, & Santos (1982) don't give stress marks for reduplicative forms. I'm assuming that they follow the normal stress pattern.

4.1.2 Underlyingly C-final

- With C-initial suffixes: CV(...)C roots epenthesize at root-red juncture, and copy the epenthetic vowel, due to operation of CODACOND and MAX-BR.
  - No need to mention prosodic words, or even the MBase.

(42) CV(...)C roots, C-initial suffixes

INPUT: /tasoŋk, RED, -wai-/ MBASE: [tasoŋka]		CODACOND	DEP-IO	MAX-BR
a.	tasoŋk-tasoŋk-wai-	*!*		
b.	tasoŋk-asoŋk-wai-	*!		*
c.	tasoŋk-asoŋk*a*-wai-		*	*!
d. ☞	tasoŋk*a*-tasoŋka-wai-		*	
e.	tasoŋk*a*-soŋka-wai-		*	*!*

- Without recourse to SUFFIX-TO-PWD for the root-red juncture, we have to be more careful about V-initial suffixes, because ANCHOR-R-BR is not on its own going to force "over-application" of epenthesis.
  - Undifferentiated MAX-BR ranked below DEP-IO would predict failure to copy initial consonant (43e).
  - MAX-C-BR ≫ DEP-IO (≫) MAX-V-BR works

(43) CV(...)C roots, V-initial suffixes

INPUT: /-tasoŋk, RED, -iro/ MBASE: [tasoŋka]		CODA COND	ONSET	ANCHOR-R-BR	MAX-C-BR	DEP-IO	MAX-V-BR
a.	-tasoŋk-tasoŋk-iro	*!					
b.	-tasoŋk*a*-tasoŋk-iro			*!		*	*
c.	-tasoŋk*a*-tasoŋka.-iro		*!			*	
d. ☞	-tasoŋk*a*-tasoŋka-*t*iro					**	
e.	-tasoŋk-asoŋk-iro				*!		

(44) Crucial ranking: CODACOND, ONSET, ANCHOR-R-BR, MAX-C-BR ≫ DEP-IO

- We'll need DEP-IO ≫ MAX-V-BR for V-initial roots.

- Also, DEP-BR must outrank DEP-IO (or at least DEP-V-BR ≫ DEP-C-IO), to rule out epenthesizing in the reduplicant.
  - Parsing the epenthetic vowel at the root-red juncture into the reduplicant would let you avoid epenthesizing at all after the reduplicant.
  - This is ruled out by DEP-BR.

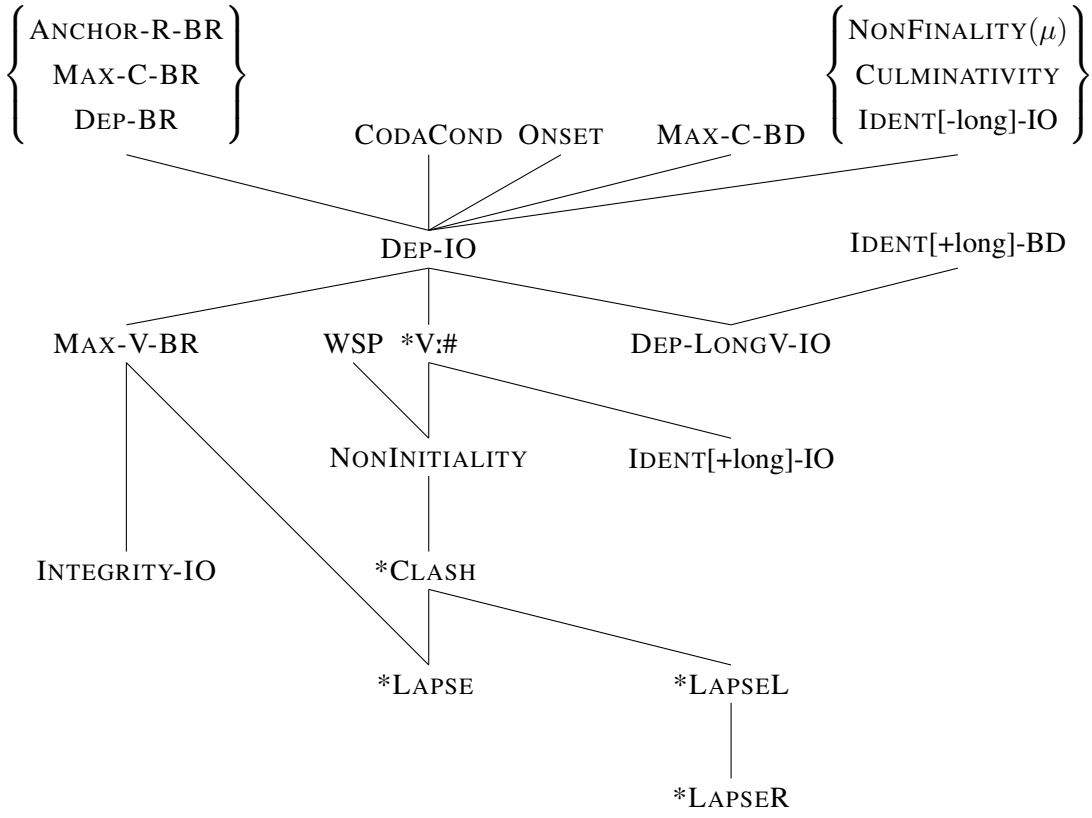
(45) CV(...)C roots, V-initial suffixes

INPUT: /-tasoŋk, RED, -iro/ MBASE: [tasoŋka]	ANCHOR-R-BR	DEP-BR	MAX-C-BR	DEP-IO	MAX-V-BR
a. -tasoŋk*a*-tasoŋk-iro	*!			*	*
b. -tasoŋk-*a*tasoŋk-iro		*!		(*)	
c. ☞ -tasoŋk*a*-tasoŋka-*t*iro				**	

(46) Crucial ranking: DEP-BR ≫ DEP-IO

4.1.3 Ranking summary

(47) Interim Hasse diagram



4.2 V-initial long roots

4.2.1 Underlying V-final

- The ranking MAX-C-BR ≫ DEP-IO ≫ MAX-V-BR means that not copying a root-initial vowel will be preferred to copying + epenthesis

(48) VCVCV roots, C-initial suffixes

INPUT: /osampi, RED, -wai-/ MBASE: [osampi]	DEP-BR	ONSET	ANCHOR-R-BR	MAX-C-BR	DEP-IO	MAX-V-BR
a. osampi-osampi-wai-		**!				
b. osampi*t*-osampi-wai-		*	*!	*!	*	
c. osampi*t*-osampit-*a*wai-		*			**!	
d. ☞ osampi-sampi-wai-		*				*
e. osampi-*t*osampi-wai-	*!	*			(*)	

- Can't overapply *t*-epenthesis because of ALIGN-ROOT-L

(49) VCVCV roots, C-initial suffixes

INPUT: /osampi, RED, -wai-/ MBASE: [osampi]	ALIGN-ROOT-L	DEP-BR	ONSET	ANCHOR-R-BR	DEP-IO	MAX-V-BR
a. ☞ osampi-sampi-wai-			*			*
b. osampi-*t*osampi-wai-		*!	*		(*)	
c. *t*osampi-tosampi-wai-	*!				*	

4.2.2 V-initial suffixes

- Problem for V-initial suffixes

(50) VCVCV roots, V-initial suffixes

INPUT: /osampi, RED, -iro/ MBASE: [osampi]	DEP-BR	ONSET	ANCHOR-R-BR	MAX-C-BR	DEP-IO	MAX-V-BR
a. ☹ osampi-sampi-*t*iro		*			*	*!
b. 💣 osampi*t*-osampit-iro		*			*	

- If we add ALIGN-RED-L above MAX-V-BR, then we derive the right result here.
- *Not sure if this creates other problems...*

(51) VCVCV roots, V-initial suffixes

INPUT: /osampi, RED, -iro/ MBASE: [osampi]	DEP-BR	ONSET	ANCH-R-BR	MAX-C-BR	DEP-IO	ALIGN-RED-L	MAX-V-BR
a. ☞ osampi-sampi-*t*iro		*			*	5	*
b. osampi*t*-osampit-iro		*			*	6!	

4.2.3 Underlying C-final

- Another problem for V...C roots: how to force *a*-epenthesis + copy.

(52) VCVC roots, C-initial suffixes

/oiriŋk, RED, -wai-/	CODACOND	ONSET	ANCH-R-BR	DEP-BR	DEP-IO	MAX-V-BR
a. oiriŋk-oiriŋk-wai-	*!	*				
b. oiriŋk-oiriŋk*a*-wai-		*	*!	*!	*	
c. 💣 oiriŋk-oiriŋk-*a*wai-		*			*	
d. oiriŋk*a*-oiriŋka-wai-		**!			*	
e. ☹ oiriŋk*a*-riŋka-wai-		*			*	*!

- The ranking MAX-V-BD ≫ MAX-V-BR can fix this:

(53) VCVC roots, C-initial suffixes

INPUT: /oiriŋk, RED, -wai-/ MBASE: [oiriŋka]	CODA COND	ONSET	ANCH-R-BR	DEP-BR	DEP-IO	MAX-V-BD	MAX-V-BR
a. oiriŋk-oiriŋk-wai-	*!	*				*	
b. oiriŋk-oiriŋk*a*-wai-		*	*!	*!	*	*	
c. oiriŋk-oiriŋk-*a*wai-		*			*	*!	
d. oiriŋk*a*-oiriŋka-wai-		**!			*		
e. ☞ oiriŋk*a*-riŋka-wai-		*			*		*

- CONTIG-BD is also required to rule out a parse of (c) where the epenthetic vowel before the suffix is in correspondence with the epenthetic vowel of the MBase.
  - CONTIG-BD would penalize this because the reduplicant intervenes between the root and the epenthetic vowel, which were contiguous in the MBase.
  - This can rank anywhere, as long as it's above MAX-V-BR.

- Problem: MAX-V-BD must rank below DEP-IO so that it can't force extra epenthesis in the CV+V... (non)augmentation case.

(54) /CV/ before V-initial suffix

INPUT: /na, -aanc^{h}i-/ MBASE: [nata]	ONSET	MAX-C-BD	DEP-IO	MAX-V-BD
a. ☞ na*a*anc^{h}i-			*	*
b. na*ta*anc^{h}i-			*!**	

(55) Crucial ranking: DEP-IO ≫ MAX-V-BD

- This ranking derives the wrong result for VCVC roots with V-initial suffixes; it predicts full root copying.

(56) VCVC roots, V-initial suffixes

INPUT: /oiriŋk, RED, -iro-/ MBASE: [oiriŋka]	ONSET	ANCH-R-BR	DEP-BR	DEP-IO	MAX-V-BD	MAX-V-BR
a. 💣 oiriŋk-oiriŋk-iro-	*				*	
b. ☹ oiriŋk*a*-riŋka-*t*iro-	*			*!*		*

- This is where I came up with the solution based on IDENT[CV transitions]-BD, which seems to me to be the only way out of this problem.

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McCarthy, John J. & Alan Prince. 1993. Prosodic Morphology I: Constraint Interaction and Satisfaction. *Linguistics Department Faculty Publication Series* 14 (2001 version). http://scholarworks.umass.edu/linguist_faculty_pubs/14.

Payne, David L., Judith K. Payne & Jorge Santos. 1982. *Morfología, fonología y fonética del asheninca del apurucayali (campa-arawak preandino)* (Serie Lingüística Peruana 18). 1st edn. Yarinacocha: Inst. Lingüístico de Verano.