

# MIRCD: Proto-Anatolian to (Pre-)Hittite

[Companion handout to Yates & Zukoff AMP 2018 poster]

## Constraints

- (1) **NO POORLY-CUED REPETITIONS** [**\*PCR**]  
For each sequence of repeated identical consonants separated by a vowel ( $C_\alpha VC_\alpha$ ), assign a violation mark \* if that sequence immediately precedes an obstruent.
- (2) **CONTIGUITY-BR** [**CNTG**]  
Assign one violation mark \* if two segments which are contiguous in the base have correspondents in the reduplicant that are not contiguous.
- (3) **ALIGN-ROOT-L** [**ALIGN**]  
Assign one violation mark \* for each segment intervening between the left edge of the root and the left edge of the word. (*Fulfills same function as \*CC.*)
- (4) **MAX-BR** [**MAX**]  
Assign one violation mark \* for each segment in the base which does not have a correspondent in the reduplicant.

## MIRCD

- Initial “Support” after change from PA *TV-TRVX-* to post-PA *TRV-TRVX-*

- (5) MIRCD: Initial Support

	*PCR	CNTG	ALIGN	MAX
i. TRVCV- → TRV-TRVCV- > TV-TRVCV-	e	W	L	W
ii. TRVCV- → TRV-TRVCV- > TRVCV-TRVCV-	e	e	W	L
i. STVCV- → STV-STVCV- > SV-STVCV-	W	W	L	W
ii. STVCV- → STV-STVCV- > STVCV-STVCV-	e	e	W	L

- MIRCD first installs CNTG because it has only **W**'s, and the most **W**'s.
- Unlike RCD, it doesn't install \*PCR, because it does not have *the most W*'s.

- (6) MIRCD (round 1): Install *maximally-informative winner-preferrer*, i.e. CNTG

	CNTG	*PCR	ALIGN	MAX
i. TRVCV- → TRV-TRVCV- > TV-TRVCV-	W	e	L	W
ii. TRVCV- → TRV-TRVCV- > TRVCV-TRVCV-	e	e	W	L
i. STVCV- → STV-STVCV- > SV-STVCV-	W	W	L	W
ii. STVCV- → STV-STVCV- > STVCV-STVCV-	e	e	W	L

- Grayed out rows in (6) represent *Winner~Loser* pairs removed from support by installation of CNTG.

- Among remaining support, ALIGN is the only winner-preferrer, so it gets installed.
- Again unlike RCD, MIRCD does not install PCR despite it preferring no losers.

- (7) MIRCD (round 2): Install *maximally-informative winner-preferrer*, i.e. ALIGN

	CNTG	ALIGN	*PCR	MAX
i. TRVCV- → TRV-TRVCV- > TV-TRVCV-	W	L	e	W
ii. TRVCV- → TRV-TRVCV- > TRVCV-TRVCV-	e	W	e	L
i. STVCV- → STV-STVCV- > SV-STVCV-	W	L	W	W
ii. STVCV- → STV-STVCV- > STVCV-STVCV-	e	W	e	L

- All data is now explained, so \*PCR (and MAX) are ranked at the bottom of the grammar.
- This is the ranking necessary to allow the later emergence of *VR-VRTX-*.

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## References

- Becker, Michael. 2009. Phonological Trends in the Lexicon: The Role of Constraints. PhD Dissertation, University of Massachusetts, Amherst.
- Dempsey, Timothy Richard. 2015. Verbal Reduplication in Anatolian. PhD Dissertation, UCLA.
- Hayes, Bruce. 2004. Phonological Acquisition in Optimality Theory: The Early Stages. In René Kager, Joe Pater & Wim Zonneveld (eds.), *Constraints in Phonological Acquisition*, 158–203. Cambridge: Cambridge University Press.
- Prince, Alan & Bruce Tesar. 2004. Learning Phonotactic Distributions. In René Kager, Joe Pater & Wim Zonneveld (eds.), *Constraints in Phonological Acquisition*, 245–291. Cambridge: Cambridge University Press.
- Steriade, Donca. 1988. Reduplication and Syllable Transfer in Sanskrit and Elsewhere. *Phonology* 5(1):73–155.
- Tesar, Bruce & Paul Smolensky. 1998. Learnability in Optimality Theory. *Linguistic Inquiry* 29(2):229–268.
- Yates, Anthony D. & Sam Zukoff. 2016a. The Phonology of Anatolian Reduplication. Paper Presented at the 35th East Coast Indo-European Conference, Athens, GA. June 6–8, 2016.
- . 2016b. Variation and Change in Anatolian Reduplication. Paper Presented at the 28th Annual UCLA Indo-European Conference, UCLA. November 11–12, 2016.
- . in press. The Phonology of Anatolian Reduplication: Synchrony and Diachrony. *Indo-European Linguistics*. URL <https://ling.auf.net/lingbuzz/004038>.
- Zukoff, Sam. 2017. Indo-European Reduplication: Synchrony, Diachrony, and Theory. PhD Dissertation, MIT. URL <http://web.mit.edu/szukoff/www/pdfs/Zukoff2017Dissertation.pdf>.