Wrong-side reduplication in Koasati*

Ivy Hauser and Leland Kusmer

Abstract

Koasati (Muskogean; Kimball 1991, 1988) exhibits a reduplication process that suffixes material copied from the left edge of the root. According to Marantz's generalization (1982), this type of reduplication is expected to be typologically rare. Nelson (2003) strengthens this claim, arguing that apparent cases of "wrong-side reduplication" (WSR) are actually epiphenomenal and true WSR does not exist. We argue against this, showing that the Koasati case is in fact true WSR and not epiphenomenal. We provide a model that accounts for both adjacent-side and wrong-side reduplication, building on the system from Nelson (2003) with the addition of a Linearity constraint. This analysis leads to a strong typological prediction: WSR should only ever be suffixing (i.e. copying from the left but affixing on the right), never prefixing (copying from the right but affixing on the left).

Keywords: reduplication, morphophonology, Muskogean, Optimality Theory

1 Introduction

Koasati (Muskogean; Kimball 1991, 1988) exhibits a reduplication process, exemplified in (1), that suffixes material copied from the left edge of the

*Thanks to audiences at the 2016 Manchester Phonology Meeting, John McCarthy, Joe Pater, and Gaja Jarosz. At the time of writing, the authors were supported by the National Science Foundation Graduate Research Fellowship under Grant No. 1451512. Any opinion, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the National Science Foundation.

root. This is in contrast with the trend described by Marantz's generalization (1982), which states that reduplicant material tends to be adjacent to the corresponding base material. In later work on wrong-side reduplication, Nelson (2003) has argued that apparent cases of "wrong-side reduplication" (WSR) are actually epiphenomenal, strengthening Marantz's claim that WSR should be rare into a claim that WSR should not exist. We argue against this, and show that the Koasati case is in fact true WSR and not epiphenomenal.

(1) a. **l**apat- **l**o-
be.barren- RED-
'be barren (pl)'

b. **c**ofok- **c**o-
be.angled- RED-
'be angled (pl)'

Koasati thus behaves like Creek (also Muskogean), which Riggle (2004) argued has a reduplication process that is also truly wrong-sided. Together, these languages support a model of reduplication that can generate both wrong- and adjacent-side reduplication (ASR). We provide such a model using the system from Nelson (2003) with the addition of a LINEARITY constraint enforcing rigid morpheme order. This analysis leads to a strong typological prediction: WSR should only ever be suffixing (i.e. copying from the left but affixing on the right), never prefixing (copying from the right but affixing on the left).

2 Wrong-side reduplication

The generalization given in Marantz (1982) states the prohibition against WSR as a trend, the 'unmarked case'. By contrast, Nelson (2003) argues that it is a strict prohibition, and that all apparent cases of WSR are epiphenomenal. She argues that all prior examples of allegedly-wrong-sided reduplication are either non-reduplicative copying or full-copying plus deletion. In the former case, the root is augmented to meet some prosodic template, with no reduplicative morpheme (RED) morpheme involved.[1] In the latter case, an independently-attested deletion process reduces an adjacent-sided reduplicant in such a way as to make it appear wrong-sided.

[1]We assume this definition from Nelson (2003) for non-reduplicative copying.

2.1 Non-reduplicative copying

Non-reduplicative copying expands a root in order to satisfy a morphological template. Crucially, if the root already satisfies that template, no copying occurs. For example, if some morphological template required a four-syllable word, then a two-syllable base would reduplicate fully while a three-syllable one may only copy the initial syllable. If this were analyzed as true reduplication, it would require that these reduplicant forms receive a variable number of RED morphemes depending on the root shape. For these cases, Nelson proposes that no RED morpheme is involved at all, merely a prosodic template operating at the level of the word. Formally, the copied segments violate IO-INTEGRITY and BR-faithfulness is not active. Under this analysis, any cases like this are not reduplication proper, and so do not violate Marantz's generalization even if the copied material comes from the far side of the root.

2.2 Full copy plus deletion

Nelson gives Madurese plural reduplication as an example of full copy plus deletion, in which an independently-attested deletion operation renders total reduplication opaque. At least some Madurese nouns form the plural by apparently copying the final syllable of the root and prefixing it, which looks like WSR; this is illustrated in (2). However, there is an independently-attested deletion process active in Madurese compounds, illustrated in (3): The first syllable of noun-noun compounds is deleted. If plural formation is accomplished via total reduplication, and total reduplication is in effect compounding a noun with itself, then first-syllable deletion is expected to apply, yielding the forms observed in (2). On this basis, Nelson argues that the apparent WSR can be understood as total reduplication obscured by further deletion; further details of this analysis can be found in (Nelson, 2003, p. 16).

(2) **Madurese plural (Stevens 1968, via Nelson 2003 p. 16)**

/neat/	yat-neyat	'intensions'
/moa/	wa-mowa	'faces'

(3) **First syllable deletion in Madurese compounds:**

/**tu**zhuʔ/ 'finger' + /ənpul/ 'pinky' → [zhu-ʔənpul]

2.3 Nelson's analysis

Having argued that all apparent cases of WSR are either not true reduplication or are total reduplication obscured by a deletion process, Nelson (2003) proposes a formal mechanism to rule out WSR. This mechanism has three crucial components:

1. The RED morpheme is unordered with respect to the root in the input.

2. Correspondence is enforced by a constraint LEFT-ANCHOR: The left edge of the reduplicant must be in correspondence with the left edge of the base.

3. Ordering of reduplicants is controlled by LOCALITY: The copied portion of the base and the corresponding reduplicant must be adjacent.

In this system, inputs for reduplication consist of /RED, ROOT/ with no order specified – reduplicants are not inherently either prefixes or suffixes. LEFT-ANCHOR forces reduplicants to copy from the left edge, while LOCALITY insists that reduplicants must be as close to the their base material as possible; the combination forces reduplicants to be prefixes. Crucially, in Nelson's system, no hypothetical constraint RIGHT-ANCHOR exists. The argument behind this is that extra faithfulness to the left edge of the word is well-attested. Nelson claims that the importance of the left edge to lexical access provides support for this asymmetry.[2]

The combination of these three components makes all WSR candidates harmonically bounded: No wrong-sided candidate can win under any ranking. As such, Nelson (2003) predicts that WSR is impossible, unlike Marantz (1982), which only claims that it is the rare/marked case.

[2]Nelson also proposes a constraint EDGE-ANCHOR which anchors both left and right edges, but not necessarily of the entire word. This constraint is not relevant to our analysis here but does allow for suffixed adjacent-side reduplication.

3 Koasati pluractional reduplication

Some Koasati verbs are morphologically marked for pluractionality[3] by a reduplicative suffix to the root, as illustrated by the forms in Table 1.[4] The verb forms given in the first two columns of Table 1 are not monomorphemic, but rather have the morphological breakdown illustrated in (4). The formative is a suffix indicating the semantic class of the verb and is lexically specified. Changes in formative yield changes in lexical meaning, but most roots can take only one formative. By contrast, the outermost suffixes are tense and agreement (in the citation form given here, infinitive with null agreement).

Table 1: Pluractional reduplication in Koasati. Data are assembled from Kimball (1991, p. 276) and Kimball (1988, p. 434-5).

Verb	Pluractional	V. stem	Pl. stem	Gloss
lapa:tkin	lapat**lo:**kin	lapat-	lapat**lo**-	be narrow
cofo:knan	cofok**co:**nan	cofok-	cofok**co**-	be angled
alo:tkan	alot**lo:**kan	alot-	alot**lo**-	be full
pa:kkon	pak**po:**kon	pak-	pak**po**-	have a blister
copo:ksin	copok**co:**sin	copok-	copok**co**-	be a hill
polo:hkin	poloh**po:**kin	poloh-	poloh**po**-	be circular
taha:spin	tahas**to:**pin	tahas-	tahas**to**-	be light in weight
tala:sban	talas**to:**ban	talas-	talas**to**-	to be thin
limi:hkon	limih**lo:**kin	limih-	limih**lo**-	to be smooth

[3]Kimball (1988) calls this the 'punctual' reduplication, distinct from the 'iterative' reduplication, which is a suffixing reduplication copying from the right side of the root and thus not relevant to our analysis here.

[4]Kimball notes that there are a number of other processes by which verbs form their plural, including deletion of material from the root, replacement of the formative suffix, and infixation of /-ho-/ after the first syllable. While there are some phonological and prosodic trends, there are no necessary and sufficient conditions on which roots will undergo which plural formation process; it is apparently necessary to lexically specify which process a given root will undergo. As such, we will restrict ourselves to analyzing one particular plural formation process, what Kimball (1991) refers to as "simple partial reduplication" of pluractional verb stems. The existence of other processes for forming plurals does not refute our claim that the simple partial reduplication is a true example of WSR. For more information on the other processes, see Kimball (1988); Martin (1994); Fitzgerald (2016), among many others

(4) **l**apa -t (-**l**o:) -ki -n
ROOT -FORMATIVE -RED -INF -AGR
'to be narrow' (Kimball, 1991, p. 276)

Because of the lexical nature of the formative, we will assume this enters the derivation with the root, while the inflectional material applies at some later cycle. Reduplication applies before the inflectional material is added. Vowel length is associated with penultimate syllable stress (Kimball, 1991).[5] The reduplicant in these examples is coincidentally penultimate, but will not be under all inflections. Stress (and lengthening) is calculated at a later cycle, after reduplication has applied. Factoring out all of the morphophonology that occurs after reduplication results in the stems given in Table 1.

The reduplication process which we analyze here adds a suffix /-Co/, where /C/ is a copy of the first consonant in the root. This is true WSR, contra Nelson (2003): Neither non-reduplicative copying nor full copy plus deletion will predict these forms.

(5) a. **c**ofok- **co-**
ROOT RED
'be angled (pl)'
(Kimball, 1991, p. 276)

b. **p**ak- **po-**
ROOT RED
'have many blisters'
(Kimball, 1988, p. 434)

To see that this is not non-reduplicative copying, we must consider monosyllabic stems. While most Koasati verb roots are disyllabic, some monosyllabic ones undergo the same reduplication process, as illustrated in (5)[b]. Non-reduplicative copying by definition augments roots to meet a specified prosodic template, but there is no single prosodic template that Koasati reduplication generates – it operates just the same on monosyllabic roots as disyllabic ones. This is consistent with the affixation of a RED morpheme rather than non-reduplicative copying.

Neither could pluractional stems be formed by full copy plus deletion. The reduplicant consists of the first consonant in the root plus a fixed segment

[5] However, see Gordon et al. (2015), which offers detailed phonetic data on vowel length in Koasati, including specific discussion of penultimate lengthening in verbs. The lengthening noted here is associated with particular morphological forms, and in fact does not neutralize an underlying contrast between long and short vowels in this position. In sum, the actual data is much more complicated than we have space to present here, but in any case this length is the product of an independent morphological process and can be set aside for our discussion of reduplication.

/o/. While there are deletion processes in Koasati which affect the verbal morphology, in order for this to be analyzed as a case of full copy plus deletion there would have to be an independently-attested deletion process that reduces verbs to only their first consonant plus a fixed segment. We know of no such process in Koasati (or any other language). Because of this, the Koasati data is more consistent with WSR than with full copy plus deletion.

3.1 Creek reduplication

The Koasati data is very similar to data provided by Riggle (2004) from the related language Creek, illustrated in Table 2 (see also Booker, 2005; Haas, 1977; Martin and Mauldin, 2004). Riggle argues that this is also true WSR which cannot be explained by filling a prosodic template or full copy plus deletion. The Koasati process differs from the Creek process in that the Creek reduplication is infixing, which leaves open the possibility of other analyses for the placement of the reduplicant. Crucially, the reduplicant in Creek is always the stressed syllable; as such, an alternative non-WSR analysis is available. It could be argued that the reduplicant is left-aligned then later infixed as the stressed syllable to satisfy a requirement that the affix be aligned with stress.

The Koasati data that we present here build on the Creek data by providing a clearer case of WSR. This is because the Koasati data is fully suffixing and the reduplicant occupies multiple metrical positions, not only the stressed syllable. Therefore, the pattern in Koasati cannot be analyzed as non-reduplicative copying or wrong-sided alignment due to stress. Koasati pluractional reduplication thus provides a clearer case of WSR which is not amenable to these alternative analyses. This provides additional support for the conclusion of Riggle (2004) that the Creek data should be analyzed as WSR despite the fact that the reduplicant is infixed as the stressed syllable in that data.

Riggle's (2004) analysis utilizes alignment constraints to control the placement of the reduplicant and base-reduplicant faithfulness to control the segmental content of the reduplicant. By contrast, our analysis expands the system proposed by Nelson (2003) (which excludes WSR) to include WSR as a possible pattern. Through the use of the anchoring constraints, Nelson's system avoids the typological pathologies associated with the use of gradient alignment constraints (e.g. McCarthy, 2003). By building on Nelson's sys-

Table 2: Creek reduplicated stems (Riggle, 2004, p. 2)

Verb stem	Pluractional stem	Gloss
lisk-	lis**li**k-	'old'
polok-	polo**po**k-	'round'
holwak-	holwa**ho**k-	'ugly, naughty'

tem, we provide an analysis for WSR which is situated within an existing typology of ASR and affixing asymmetries.

4 Analysis

We have argued that Koasati presents a case of true WSR. The analysis of reduplication proposed in Nelson (2003) predicts that WSR should not be possible; given the Koasati case, however, our grammatical model should allow it. In this section, we propose such a model by making minimal additions to Nelson's system. In particular, we add the constraint LINEARITY (McCarthy and Prince, 1995), which prevents re-ordering of elements. We also allow RED morphemes to have a specified order in the input. In this system, as in Nelson (2003), copying is demanded by MAX-BR and L-ANCH, while the base-shrinkage in vowel-initial roots is mediated by MAX-RTB.

4.1 Input form

We propose that the Koasati reduplicant morpheme takes the form [μ]_RED<o>. That is, the reduplicant is lexically specified to have one mora and (contra Nelson) to be a suffix, attaching to the right edge of the base in the input.[6] This prosodic template is accompanied by a 'floating' segment <o> unlinked to any prosodic structure, where the floating status is indicated with angle brackets.

[6]Our analysis relies on this morpheme being ordered in the input with respect to the root, contra some of the literature on morpheme ordering in OT (e.g. McCarthy and Prince (1993) among others). We follow Horwood (2004, et seq.) in assuming that the affix would be suffixed by the morphosyntax and therefore a suffix in the input to the phonological derivation.

4.2 Constraint set

Our system uses of the following set of constraints:

- L-ANCH: The left edge of the reduplicant corresponds to the left edge of the base (Nelson, 2003). (Assign one * if the left edge of the base is not in correspondence with the left edge of reduplicant.)
- LOCALITY: The copied portion of the base and corresponding reduplicant must be adjacent (Nelson, 2003). (Assign one * for each non-copied segment between base and reduplicant.)
- LINEARITY: Don't reorder elements (McCarthy and Prince, 1995). (Assign one * if x precedes y in the input and the correspondent of x does not precede the correspondent of y in the output.)
- MAX: Every segment in the input has a correspondent in the output.
- DEP-μ: Every mora in the output has a correspondent in the input.
- PARSE: Input material must be parsed into prosodic structure.
- ONSET: Syllables must begin with a consonant.
- DEP-BR: Every segment in the reduplicant has a correspondent in the base.
- MAX-BR: Every segment in the base has a correspondent in the reduplicant.
- MAX-RTB: Every segment in the root has a correspondent in the base (Downing, 1998).

4.3 No reordering

The rankings disallowing reordering of the reduplicant are shown in Table 3. The constraint L-ANCH forces the reduplicant to copy from the left edge. Because LINEARITY outranks LOCALITY, the reduplicant cannot be reordered to be closer to the copied material in the base.

Table 3: /lapat-[μ]$_{\text{RED}}$<o>/ → l_1apatl_1o

/lapat-[μ]$_{\text{RED}}$<o>/	LINEARITY	L-ANCH	LOCALITY
→ 1. lapatlo			****
2. lolapat	* W		L
3. lapatpo		* W	** L

Ranking: LINEARITY, L-ANCH ≫ LOCALITY

4.4 Consonant-initial case

With consonant-initial roots, ranking PARSE and MAX over MAX-BR causes the floating segment <o> to link to the reduplicant instead of remaining unparsed or getting deleted. Because the floating segment does not correspond to anything in the base, this results in a violation of MAX-BR. The ranking DEP-μ ≫ MAX-BR prevents extra material from getting copied into the reduplicant. L-ANCH ensures that the reduplicant is in correspondence with the leftmost segment; this includes ruling out the case where no correspondence (and hence no reduplication) occur. These rankings are shown in Tableau 4.[7]

4.5 Vowel-initial case

In vowel-initial roots, the reduplicant skips the vowel and copies the first consonant. This is a case of 'base shrinkage': The base for reduplication purposes is not the entire root, but rather skips the initial vowel. Following Downing (1998), we model this with Optimized Base constraints: The base for reduplication purposes is constructed on the surface, constrained by Root-to-Base (RtB) faithfulness.

In vowel-initial roots, base shrinkage allows joint satisfaction of L-ANCH, ONSET, and PARSE: Candidates which fail to shrink the base will create a syllable with no onset, fail to parse the floating <o>, fail to have correspondence between the reduplicant and the left edge of the base, or some combination of these. MAX-RTB, which demands that every segment in the root has a correspondent in the base (Downing, 1998), prevents the base from shrinking too far. Ranking L-ANCH over MAX-RTB in a system which

[7]For simplicity, we are not showing candidates which differ in root-base correspondence. These candidates are not relevant to the ranking arguments here.

Table 4: /lapat-[μ]_RED<o>/ → l_1apatl_1o

	/lapat-[μ]_RED<o>/	L-Anch	Max	Dep-μ	Parse	Onset	Dep-BR	Max-BR
→ 4.	l_1apatl_1o						*	****
5.	l_1a_2patl_1a_2<o> *<o> unlinked*				* W		L	*** L
6.	l_1a_2patl_1a_2 *<o> deleted*		* W				L	*** L
7.	l_1a_2p_3a_4t_5l_1a_2p_3a_4t_5o *full copy, <o> linked*			** W			L	L
8.	lapat-[μ]_RED<o> *faithful*	* W			* W	* W	L	**** W
9.	lap_1atp_1o *not L anchored*	* W					*	****
10.	lapat-o *no reduplication*	* W				* W	L	****
11.	o-l_1a_2pat-l_1a_2 *reduplication, mora inserted*			* W		* W	L	** L

Rankings: Parse, Max ≫ Dep-BR, Max-BR

includes Onset will cause the optimal candidate to have base shrinkage. These rankings are illustrated in Tableau 5.

Table 5: /alot-[μ]_RED<o>/ → a(l_1ot)l_1o

	/alot-[μ]_RED<o>/	Parse	L-Anch	Onset	Max-RtB
→ 12.	a.(l_1ot).l_1o			*	*
13.	(a.l_1ot).l_1o *no base shrinkage*		* W	*	L
14.	(a._1lot).a_1-<o> *<o> unlinked*	* W		** W	L
15.	alo(t_1).t_1o *too much shrinkage*			*	*** W

Ranking: L-Anch≫ Max-RtB

4.6 Ranking summary

The rankings shown in this section are summarized in Table 6.

Table 6: Summary of rankings

LINEARITY, L-ANCH ≫ LOCALITY	Tableau (10)
PARSE, MAX ≫ DEP-BR, MAX-BR	Tableau (11)
DEP-μ ≫ MAX-BR	Tableau (11)
L-ANCH ≫ MAX-RTB	Tableau (12)

5 Conclusion

We have shown that wrong-sided pluractional reduplication in Koasati is not epiphenomenal and is a case of true wrong-side reduplication. To account for this, we have provided an analysis which uses Nelson's (2002) system with the addition of LINEARITY. The combination of Nelson's system (which does not allow for WSR) with commonly-assumed faithfulness constraints allows for the existence of true WSR. Since Koasati presents such a case, our grammatical models should allow for it.

Existing analyses of Koasati pluractional reduplication (Inkelas, 2008) have not explicitly presented or analyzed this data as a true case of wrong-side reduplication. Inkelas analyses Koasati reduplication as a case of *phonological* reduplication as opposed to *morphological* reduplication, similar to Nelson's non-reduplicative copying analysis. However, the correspondence constraints employed by Inkelas refer specifically to morphemes, and the correct output is more optimal only on these correspondence constraints, not the phonological constraints (Inkelas, 2008, p. 374). Our analysis captures the connection to morphology by employing base-reduplicant faithfulness.

Inkelas uses the constraint CORR-$C_{Morpheme-Initial}C_{Morpheme-Initial}$ (Inkelas, 2008), which demands correspondence between morpheme-initial segments. This analysis not necessarily make any predictions about which types of reduplication should be allowed when introduced into the factorial typology as Inkelas (2008) seems to place few restrictions on what set of correspondence-enforcing constraints can exist. While she uses a correspondence constraint to enforce correspondence between the beginning of the root

Table 7: WSR is harmonically bounded when RED is a prefix

	RED-bopomo	L-ANCH	LINEARITY	LOCALITY
→ 16.	bo-bopomo			
17.	mo-bopomo	* W		**** W

Table 8: Typology of L-ANCH, LOCALITY, & LINEARITY

Type	Input	Output	Crucial Rankings
Suffixing ASR	bopomo-RED	bopomo-mo	LOCALITY, LINEARITY ≫ L-ANCH
Suffixing WSR	bopomo-RED	bopomo-bo	L-ANCH, LINEARITY ≫ LOCALITY
Prefixing ASR	RED-bopomo	bo-bopomo	Any

and the suffix, there is no restriction preventing a similar constraint from enforcing, for example, correspondence between final segments. This type of constraint would produce prefixing wrong-side reduplication if used in the Koasati analysis from Inkelas (2008).

By contrast, the system we present here makes a strong and concrete typological prediction. Because there is crucially no RIGHT-ANCHOR in either Nelson's or our systems, we predict WSR to always be suffixing. With a prefixed reduplicant, WSR is harmonically bounded; only adjacent-side reduplication (ASR) is possible. This harmonic bounding is illustrated in Tableau 7. The result is that we predict the three-way typology outlined in Table 8.[8]

In sum, Koasati pluractional reduplication is true wrong-side reduplication. Our analysis of the phenomenon builds on Nelson (2003) and makes a concrete typological prediction: Prefixing reduplication is always adjacent-side, never wrong-side. To our knowledge, this prediction is borne out.[9]

[8]We thank a previous anonymous reviewer for drawing our attention to the case of Temiar continuative verbs, where e.g. /slɔg + RED/ → [sg.lɔg]. While this reduplicant is infixing, at first glance it looks like a 'prefixal' infix aligned to the left of the root, which would be a problem for our prediction. However, Gafos (1998) argues that this is not true, on the grounds that when combined with other infixes the reduplicated consonant is always immediately before the final syllable. For example, with the causative infix /-r-/, /sl/ɔg + RED + -r- / → [srg.lɔg]. While the details of positioning this infix remained to be worked out, Temiar is not a counterexample to our prediction.

[9]To our knowledge, the only apparent counter-example to this prediction is Nancowry (Radhakrishnan, 1981), in which the reduplicant consists of /ʔVC/ where C is the coda of

References

Alderete J, Beckman J, Benua L, Gnanadesikan A, McCarthy J, Urbanczyk S (1999) Reduplication with fixed segmentism. Linguistic Inquiry 30(3):327–364

Booker KM (2005) Comparative Muskogean: Aspects of Proto-Muskogean verb morphology. PhD thesis, University of Michigan Ann Arbor

Downing LJ (1998) On the prosodic misalignment of onsetless syllables. Natural Language and Linguistic Theory 16(1):1–52

Fitzgerald CM (2016) Morphology in the Muskogean languages. Language and Linguistics Compass 10(12):681–700

Gafos D (1998) Eliminating long-distance consonantal spreading. Natural Language & Linguistic Theory 16(2):223–278

Gordon M, Martin JB, Langley L (2015) Some phonetic structures of Koasati. International Journal of American Linguistics 81(1):83–118

Haas MR (1977) Nasals and nasalization in Creek. In: Annual Meeting of the Berkeley Linguistics Society, vol 3, pp 194–203

Horwood GV (2004) Order without chaos: Relational faithfulness and position of exponence in optimality theory. PhD thesis, Rutgers The State University of New Jersey-New Brunswick

Inkelas S (2008) The dual theory of reduplication. Linguistics 46(2):351–401

Kimball G (1988) Koasati reduplication. In: In honour of Mary Haas: from the Haas Festival Conference on Native American Linguistics, vol 43142

Kimball GD (1991) Koasati grammar. Univ. of Nebraska Press

a monosyllabic root; for example, /RED+rom/ → [ʔum-rom] 'flesh of fruit'. Notably, this process only applies to monosyllabic verbs (*[ʔVC_1-σCVC_1]). This is compatible with a non-reduplicative copying analysis, which has also been argued for in the literature. Alderete et al. (1999) analyzes this as a case of full copy with fixed segmentism; Nelson (1998, 2003) uses a similar analysis with the constraint requiring anchoring to both the left and right edges of a stressed syllable. Under both analyses this phenomenon is not true WSR and as such is not a counterexample to our prediction.

Marantz A (1982) Re reduplication. Linguistic Inquiry 13(3):435–482

Martin J (1994) Implications of plural reduplication, infixation, and subtraction for Muskogean subgrouping. Anthropological Linguistics pp 27–55

Martin JB, Mauldin MM (2004) A dictionary of Creek/Muskogee. University of Nebraska Press

McCarthy JJ (2003) Ot constraints are categorical. Phonology 20(1):75–138

McCarthy JJ, Prince A (1993) Generalized alignment. In: Yearbook of Morphology 1993, Springer, pp 79–153

McCarthy JJ, Prince A (1995) Faithfulness and reduplicative identity. UMass Amherst

Nelson N (1998) Right anchor, aweigh, ms., Available from roa.rutgers.edu/files/284-0998/roa-284-nelson-2.PDF

Nelson NA (2003) Asymmetric anchoring. PhD thesis, Rutgers, The State University of New Jersey

Radhakrishnan R (1981) The Nancowry Word: Phonology, Affixal Morphology and Roots of a Nicobarese Language, Current Inquiry Into Language and Linguistics, vol 37. ERIC

Riggle J (2004) Nonlocal reduplication. In: Proceedings of NELS 34, GLSA, University of Massachusetts