<div align="center">

Reduplication of Affixes

Jason D. Haugen
Oberlin College
jhaugen@oberlin.edu
Workshop on Replicative Processes in Grammar
Universität Leipzig, October 1, 2015

</div>

1. Introduction

(1) <u>Affixes may be subjected to grammatical repetition under a number of guises, including:</u>

> · Semantically unmotivated *doubling* (Ryan & Schuh 2010);
>
> · Semantically unmotivated (whole or partial) *copying* (Zimmermann 2012);
>
> · *Multiple exponence* (Caballero & Harris 2012);
>
> · *Inflectional hypercharacterization* – "a repetition of the (original) meaning of a more
> central affix by a more peripheral affix", ~ use of synonymous affixes;
> e.g. Breton pluralized diminutives (Dressler et al. 2014);
>
> · ***Recursion*** (Lander & Letuchiy 2010);
>
> ✪ ***Reduplication*** – when phonological copying of <u>some</u> (<u>or all</u>) of the affixal material
> occurs to express some grammatical function or category.
> ↳ Availability of partial copying is key.

· These can sometimes be difficult to tease apart.

· **Re: Affix Recursion**:
 There's an important empirical question about which types of affix, cross-linguistically, can be
 applied recursively.

✪ I propose that we distinguish true *recursion*, i.e. (potentially unlimited) multiple application of
 an affix, from affix repetition or mere affix iteration (e.g. doubling or tripling).
 · cf. double passives in the 'causal passive' construction of Karachay-Balkar
 (Altaic, Turkic) (Lyutikova & Tatevosov 2014);

· Interesting cross-linguistic differences can been observed by comparing certain languages, as
 with CAUS and APPL recursion.

> · Nahuatl (Uto-Aztecan): APPL and CAUS have both been claimed to be recursive
> (Sischo 1981; Andrews 1988);
>
> · Adyghe (Northwest Caucasian): only APPL, and not CAUS, is recursive (Lander &
> Letuchiy 2010) .

<div align="center">

1

</div>

· We have to be careful to distinguish truly recursive CAUS from the addition of a CAUS suffix
    to a stem with a lexical causative, which can happen in Hiaki, which otherwise forbids
    multiple causatives (Jung 2014);

· Further: some cases of purported limitless CAUS (e.g. in Turkish) have been called into
    question, and an upper bound of possible CAUS events has been proposed (Key 2013).

· So, there's still an important empirical question about which types of affix, cross-linguistically,
    can be applied recursively.

        ↳ Follow-up questions, too: why those?, and, why not others?

Re: Affix Reduplication

· There's a huge literature on reduplication!

(2) Competing theories of reduplication

· Reduplication as *affixation*:
    · Prosodic skeleton approaches (Marantz 1982, McCarthy & Prince 1986);
    · Reduplication as a RED morpheme (McCarthy & Prince 1995) ;
        · RED as a Vocabulary Item inserted into syntactic terminals (Haugen 2008, 2011);

· Reduplication as *readjustment* – an epiphenomenon resulting from phonological operations
    triggered by other morphemes (Raimy 1999; Frampton 2007);

· Reduplication as a syntactic head, *Q* (Travis 2003, Travis et al. *forthcoming*);

· Reduplication as *doubling*, with *semantic identity* being the key to understanding the
    construction (Inkelas & Zoll 2005).

· But, relatively little work has explicitly addressed the question of targeting *affixes* for
    morphological reduplication to express some grammatical function or category.

· Correspondingly, there has been little metatheoretical discussion of the issue that different
    theoretical approaches may make different, competing predictions about how
    reduplication should be able to interact with affixation.

· One important exception is Inkelas & Zoll (2005), whose *Morphological Doubling Theory*
    (MDT) explicitly includes *affix* as a potential target for doubling under their *thesis of
    morphological targets*:

(3) Inkelas & Zoll's (2005) *Thesis of Morphological Targets* (p. 25, (2))
        A reduplication construction calls for morphological constituents (***affix***, root, stem, or
        word), not phonological constituents (mora, syllable, foot). [emphasis added]

· MDT also makes a crucial prediction: there should be no base-dependence and no reduplication-specific processes.

· cf. Counterexamples like reduplication in Tawala (Austronesian) (Haugen & Hicks Kennard 2011)

(4) <u>Allomorphs of the Tawala Durative </u>(data originally from Ezard 1997)

a. ge.le.ta	**ge.le**-ge.le.ta	*<u>ge</u>-ge.le.ta	'to arrive'	**RED = CV_1CV_2**
b. a.tu.na	**a.t**-a.tu.na	*<u>a</u>-a.tu.na	'to rain'	**RED = V_1C**
c. be.i.ha	**bi**-be.i.ha	*<u>be</u>-be.i.ha	'to search'	**RED = CV_2**
d. to.to.go	to.**o**.to.go	*<u>to</u>-to.to.go	'be sick'	"**RED**" = V_1V_1

· Haugen & Hicks Kennard (2011, HHK) present this as a case of true base-dependence, as well as reduplication-specific morpho-phonology.

· Following Hicks Kennard (2003) – HHK regard this as a TETU effect involving *Repeat$_\sigma$:

(5)   MAX$_{IO}$ >> *REPEAT$_\sigma$ >> MAX$_{BR}$

(6) <u>Adjacent identical syllables are otherwise perfectly fine in Tawala</u>
    · In roots: *to.to.go*   be.sick   'be sick'
    · In derived words: *lu-lu.pa.li*   prefix-ask   'beg'
    · In compounds: *nu.go-go.ho.la*   heart-jump   'surprised'

· Some work adopting Base-Reduplicant Correspondence Theory (BRCT) also recognizes *phonological* targets for reduplication, while also allowing morphological targets:

(7) <u>Shaw's (2005) Constituent Base Hypothesis</u> (p.167, (6))
    The Base in a Reduplicant-Base correspondence relation is a constituent, i.e.
    a. MCat: Word, Stem, Root
    b. PCat: Prosodic Word, Foot, Syllable, Nucleus, Mora
    c. PHead: HeadFoot, σ´ = FootHead, Nuc = σ Head, Headμ
    d. CanonicalCat: Canonical Root = [CVC], Canonical Stem = [CVCV]

(See also Haugen 2009).

· <u>My goal today</u> – to address some important open questions:

    · What are the cross-linguistic facts regarding reduplication targeting affixes?

    · What are the theoretical implications of reduplication targeting affixes?

   <u>Put basically:</u>

    · **Can we (should we?) explicitly add "Affix" as a type of potential MCat in Shaw's framework?**

Outline for this talk

~~1. Background~~
2. A Case Study: Reduplication Targeting Affixes in Hiaki
3. Reduplication targeting affixes elsewhere?
4. Discussion

2. A Case Study: Reduplication Targeting Affixes in Hiaki

Background on Hiaki

· Hiaki, aka Yaqui, Yoeme (ISO 639-3 yaq)
     · Uto-Aztecan (Southern-Uto-Aztecan, "Sonoran", Taracahitan, Cahitan)
     · Spoken in Sonora, Mexico and Arizona, USA
     · Number of speakers: Several thousand in Sonora (Mexico), < 200 in Arizona (USA)
     · Like most indigenous languages of the Americas, it is threatened by language shift.

· An SOV language with NOM/ACC case alignment;

· Relatively agglutinative, with lots of derivational affixes which can combine to form long
     verbs, as is typical for Uto-Aztecan (Caballero 2014);

· Lots of compounding processes, including noun incorporation (N-V compounding);

· Quite productive inflectional reduplication, which involves word-internal head-marking in the
     case of N-V compounds and V-V compounds (when the semantics warrant) (Haugen &
     Harley 2013);

· Hiaki verb stems come in two varieties: a bound or free form (Harley & Tubino Blanco 2013);
     ✎ Classification is based on which of a set of two affixes is being suffixed:
         Class 1 suffixes take the free form, Class 2 suffixes take the bound form.[1]

· Verb roots fall into different stem classes, including the following major ones (with some
  additional minor ones):

(8) Major Verb Stem Classes in Hiaki (adapted from HTB 2013)

	Present tense form	Free form (Class 1 Suffixes)	Bound form (Class 2 Suffixes)
a. **Invariant**			
	hamta	*hamta-k*	*hamta-ne*
	break	break-PERF	break-FUT
	'is breaking'	'broke'	'will break'

---

[1] "Class 1" and "Class 2" are terms I am introducing here for ease of reference.

b. **Truncation**

bwase	*bwase-k*	*bwah-ne* (= *bwas-ne*)
cook.INTR	cook.INTR-PERF	cook.INTR-FUT
'is cooking'	'cooked'	'will cook'

c. **Echo vowel**

bwasa	*bwasa-k*	*bwasa'a-ne*
cook.TR	cook.TR-PERF	cook.TR-FUT
'is cooking'	'cooked'	'will cook'

· HTB attribute the distinction to, essentially, this: **Class 1=inflectional; Class 2=derivational**.

(9)   Stem-selecting suffixes in Hiaki (adapted from Harley & Tubino 2013: 118-19 [2])

(a)   Hiaki Class 1 verbal suffixes: Require the free stem form = *Inflectional?*

-k	PERF	perfective
-kan	P.IMPF	past imperfective (??)
-ka	PPL	past participle
-me	SUBJ.REL	subject relativizer
-n	P.IMPF	past imperfective
-o	if/when	if/when (conditional)
-'u	OBJ.REL	object relativizer

(b)   Hiaki Class 2 verbal suffixes: Require the bound stem form = *Derivational?*

-'ea	DESID	desiderative
-'ii'aa	**DESID**	**desiderative**[2]
-la	PPL	past participle
-le	consider	'consider'
-na	PASS.IRR	passive.irrealis
-ne	IRR	irrealis
-pea	**INCLIN**	**inclination**
-ri	PAT.NMZR	patientive nominalizer
-ria	APPL	applicative
-roka	QUOT	quotative
-sae	**DIR**	**directive ('tell')**
-se/-vo	go	'go'
-su	COMPL	completive
-taite	**INCH**	**inchoative**
-tevo	IND.CAUS	indirect causative
-tu	become	'become'
-tua	CAUS	causative
-vae	**PROSP**	**prospective**
-wa	PASS	passive

---

[2] Bolded and underlined forms in this table are those suffixes demonstrated to be reduplicatable by Escalante (1990).

· Hiaki also has a small, closed class of verbal vocabulary items which can be used as free lexical verbs or as suffixes; we refer to these as 'verb-affix hybrids' (Tubino Blanco et al. 2009; Haugen & Harley 2013; Harley & Haugen *in prep*).

· Verb-affix hybrids take the bound form of verb stems (like Class 2 affixes), and they behave identically to verbal suffixes with respect to binding and case-assignment in embedded clauses (Tubino et al. 2009).

· Some of these hybrids have taken on an aspectual meaning (e.g., inception, cessation, or both), so they seem to be part-way on a grammaticalization trajectory towards becoming aspectual suffixes (Harley & Haugen *in prep*):

(10) Hiaki Verb-affix hybrids

	Free verb meaning	Affixal meaning
(-)*hapte*[3]	'stand.up.PL'	INCEPTIVE / CESSATIVE ('change of action')
(-)*maachi*	'clear, lighted, daylight'	'appear'
(-)*mahta*	'teach'	'teach'
(-)*naate*	'start/begin'	INCEPTIVE
(-)*siime*	'go.SG'	'going along'
vicha/-*vit*	'see'	'seen'
(-)*ya'ate*	'finish up, stop activity'	CESSATIVE

· Some examples of these hybrids in both free and bound usages:

(11) *mahta* 'teach'

   a. *Nee   wai wasuktiak   ino   mahta-su-k*
       1sg   last year   1.SG.REFL   teach-COMPL-PERF
      'I finished my studies last year' (*lit*. 'finished teaching myself') (Harley & Haugen, *in prep*)

   b. *Jason   uusi-ta   koowi-m   sua-mahta-k*
       Jason-NOM   child-ACC   pig-PL   care.for-teach-PERF
      'Jason taught the child to take care of pigs'   (Tubino et al. 2009: 83 [11])

---

[3] Interestingly, *hapte*'s suppletive singular counterpart, *kikte* 'stand.up.SG', appears not to have been grammaticalized with a parallel aspectual function—see Harley & Haugen (in prep) for discussion.

(12) *ya'ate* 'finish up' (from Harley & Haugen, in prep)

    a. *Ume   tekipanoa-reo-m   uka   kari-ta   ya'ate-k*
       the   work-AG.NOM-PL   the.ACC   house-ACC   finish-PERF
       'The workers finished the house.'

    b. *Uu   voovok   ketwo   bwik-ya'ate-k*
       the   toad   morning   sing-finish-PERF
       'The toad stopped singing in the morning.'

Reduplication

· Hiaki also has productive reduplication: Several different forms of reduplication, as well as several distinct functions
       ↳ There's no consistent mapping between the forms and functions.
          (Haugen 2003; Harley & Leyva 2009)

(13) <u>Hiaki Reduplicative Allomorphs</u> (adapted from Harley & Leyva 2009: 238)

(*a*) *hi.nu*	'buy'	→	**<u>hi</u>**-*hi.nu* *<u>*hin</u>-hi.nu*	'buy (habitually)'	**RED=σ$_μ$**
(*b*) *čam.ta*	'mash'	→	**<u>čam</u>**-*čam.ta*	'be mashing s.th.'	**RED=σ (copy)**
(*b'*) *bwal.ko-te* 'soft-make'		→	**<u>bwal</u>**-*bwal.ko.te* 'soften (habitually)'		**RED=σ (copy)**
(*c*) *či.toh.te*	'slip'	→	**<u>či.to</u>**-*či.toh.te*	'slip (habitually)'	**RED=√**
(*d*) *ka.pon.te*	'castrate'	→	*ka**p**.pon.te*	'castrate (habitually)'	**μ-affix**
(*e*) *kii.mu*	'enter'	→	**<u>kik</u>**-*ki.mu*	'*really* enter' (emphatic)	**RED=σ$_{μμ}$**

· In N-V compounds (NI constructions), reduplication targets the (verbal) *head* of the compound:

(14) <u>Reduplication in an N-V Compound (Noun incorporation) construction</u>

    a.   *Irene   am=pan-**ho**-hoo-ria*   (< *pan-hooa* bread-make)
            Irene   3.PL-bread-RED-make-APPL
            'Irene is always making bread for them.'   (Haugen & Harley 2013: 162 [42a])

    b.   **Irene   am=**pa(n)**-pan-hoo-ria*
            Irene   3. PL-RED-bread-make-APPL   (Haugen & Harley 2013: 162 [42b])

· In V-V hybrid constructions, reduplication can target either of the verbs (and the habitual semantics scope over the single V only):

(15) <u>Reduplication in a Verb-Affix Hybrid construction</u> (Harley & Haugen, in prep)

 a. *Uu   maaso bwikreo   **bwi**-bwik-ya'ate*
   The   deer   singer   **RED**-sing-stop
   'The deer singer is quitting singing.'

 b. *Hunuu   maaso bwikreo   si   lauti   **bwi**-bwik-**ya**-ya'ate*
   that   deer   singer   very quickly   **RED**-sing-**RED**-stop
   'That deer singer always quits early.'

✪ Some suffixes can also (partially) reduplicate (or take mora affixation)! ✪

(16)   <u>Reduplication of suffix: –*sae* 'directive'</u>
   *inepo   a=nok-**sas**-sae*
   1.SG.NOM   3.SG.ACC=speak-**RED**-directive
   'I tell him to speak up'   (Escalante 1990: 78 [41])

(17)   <u>Reduplication of suffix: -*'ii'aa* 'desiderative'</u>
   *inepo   a=nok-**'ii**-'ii'aa*
   1.SG.NOM   3.SG.ACC=speak-**RED**-desiderative
   'I would like him to talk (more)'   (Escalante 1990: 78 [42])

(18)   <u>Reduplication of suffix: -*taite* 'inceptive'</u>
   *inepo   a=nok-**ta**-taite*
   1.SG.NOM   3.SG.ACC=speak-**RED**-Inceptive
   'He starts to talk (hesitates)'   (Escalante 1990: 79 [43])

(19)   <u>Reduplication of suffix: -*vae* 'prospective'</u>
   *inepo   a=nok-**vav**-vae*
   1.SG.NOM   3.SG.ACC=speak-**RED**-prospective
   'From time to time he wants to talk; he gets the urge to talk' (Escalante 1990: 79 [43])

(20)   <u>Mora affixation with suffix: –*pea* 'inclination'</u>
   inepo   a=nok-pe'ea
   1.SG.NOM   3.SG.ACC=speak-**µ**-Inceptive
   'He gets the desire to talk a lot'   (Escalante 1990: 79 [45])

· Reduplication can also target the matrix verb in addition to (or instead of the) suffix, if the
  semantics work out:

(21) <u>Scope of Reduplication with Verbs + Reduplicatable Suffixes</u>
                                                        (Haugen & Harley 2013: 146 [24])
 a. *Inepo   aa=nok-**'ii**-'ii'aa   ne vetchi'ivo*
   I   him=speak-**RED**-want   me   for
   'I always want him to speak for me.'

b. *Inepo   aa=**no**-nok-ii'aa*
  I   him=**RED**-speak-want
  'I want him to be the speaker/the one who habitually speaks' [e.g. at council meetings]

c. *Inepo   aa=**no**-nok-**ii**-'ii'aa*
   I   him=**RED**-speak-**RED**-want
   'I always want him to be the speaker.'

Analysis

· Haugen & Harley 2013 – Hiaki reduplication targets verbal *roots* (i.e. the syntactic category √).

· Although Hiaki does allow affixal reduplicants, the 'affixes' that can reduplicate look really
  root-like in both form and meaning.

  ↳ Thus, there's very little support here for adopting "Affix" as an MCat target for
    reduplication.

· Verbal lexemes in Hiaki seem to be on a continuum from lexical roots to functional items, with
  reduplication being a key diagnostic for root-hood.

  ↳ There are other potentially 'root-like' suffixes which cannot reduplicate (although
    semantically they seem intuitively plausible candidates for being inflected for
    habitual or iterative action associated with reduplication in this language).

  ↳ These are mostly also phonologically 'heavy' enough to support reduplication.

(22) Non-reduplicatable derivational affixes in Hiaki

-ria	APPL	applicative
-roka	QUOT	quotative
-tevo	IND.CAUS	indirect causative
-tu	become	'become'
-tua	CAUS	causative

· Further, reduplication in Hiaki seems to target *verbalized* roots (i.e. √ in the context of *v*), since
  reduplication of nominals yields a verbalized meaning, 'have N' or 'use N':

(23) Hiaki nominal reduplication as a category-changing derivational process

  a. *kava'i* 'horse' → *Pancho   ka-kava'-e*
             Pancho RED-horse-v+P$_{HAVE}$
             'Pancho usually rides horses'   (Haugen 2004: 263)

  b. *mochik* 'turtle' → *Huan   mo-mochik-e*
             Huan RED-turtle-v+P$_{HAVE}$
             'Huan usually has/keeps turtles.' (Haugen 2004: 264)

· Other languages are more indiscriminate in allowing roots to reduplicate regardless of category, e.g. Salish (Jelinek & Demers 1997).

3. Reduplication targeting affixes elsewhere?

· It's not clear how common affix reduplication actually is cross-linguistically.

· I don't know of many other cases in Uto-Aztecan, for example...although word-internal inflectional reduplication is relatively common at least for reduplication in NI constructions (and possibly V-V)....

· The WALS database seemingly excludes affix reduplication by definition:
"Full reduplication is the repetition of an entire word, word stem (root with one or more affixes), or root." (Rubino 2013)

· Not much discussion (if any) in other sources: e.g., Moravcsik (1978); Hurch (2005)....

✪ Inkelas and Zoll (2005: 27-31): Other cases of affix reduplication ✪

Dyirbal (Pama-Nyungan) – based on Dixon (1972)

(24) Reduplication for suffix intensification in Dyirbal (Inkelas & Zoll 2005: 27 [5])
    bana   'water'
    bana-ŋaŋgay   'without water'
    bana-ŋaŋgay-ŋaŋgay 'with absolutely no water at all'

· I&Z's view:
  This usage is iconic and could be viewed as multiple affixation rather than reduplication per se.

(25) Reduplication for plurality in Dyirbal (Inkelas & Zoll 2005: 28 [6])

    a. Bare nominal: the nominal simply doubles
        midi-midi   'lots of little ones'
        gulgiɺi-gulgiɺi   'lots of prettily painted men'

    b. Derived stem: The noun root *or* the derivational suffix doubles (with same meaning)
        midi-midi-*baḍun*   ~ *midi*-**baḍun-baḍun**   'lots of very small ones'
        bayi **yaɺa-yaɺa**-*gabun* ~ *bayi* *yaɺa*-**gabun-gabun** 'lots of other men/strangers'

· I&Z's view:

    · As long as something doubles, then plurality is adequately expressed.

    · Reduplication seems to be targeting the stem, *as a stem*.

· This is unlike Hiaki, where the reduplication/doubling is semantically motivated, and the target of reduplication is clear by the different resultant meanings.

___**Boumaa Fijian**___ (Central Oceanic) – Based on Dixon (1988)

· "[S]tems formed by spontaneous or adversative prefixes reduplicate both the prefix and the root in order to mark plurality (Dixon 1988:236)" – (I&Z 2005: 29-30)

(26) Reduplication of Root + Prefiex in the Boumaa Fijian (Inkelas & Zoll 2005: 30 [9])
    ta-lo'i   'bent'   →   *ta-ta-lo'i-lo'i*   'bent in many places'
    ca-lidi   'explode'   →   *ca-ca-lidi-lidi*   'many things explode'
    'a-musu   'broken'   →   *'a-'a-musu-musu*   'broken in many places'

· This doubling is obligatory here...similar doubling seems to be optional in some other languages:

___**Amele**___ (Gum, Trans-New Guinea) – based on Roberts (1987, 1991)

(27) Reduplication for iterative in Amele, targeting either:

      a. The whole stem (if there's no object marking suffix)
    qu-qu   'hit'
    ĝbatan-ĝbatan-eʔ   'split-INF'

  or b. The object marker
    hawa-du-du   'ignore-3s-3s'
    guduc-du-du   'run-3s-3s'

  or c. The stem *and* the object marker
    bala-bala-du-du-eʔ   'tear-tear-3s-3s-INF' = 'to tear it repeatedly'

___**Gapapaiwa**___ (Papuan Tip cluster, Western Oceanic) – based on McGuckin (2002)

(28) Reduplication of imperfective aspect in Gapapaiwa

    a. Reduplication of derivational prefix (if there is one)
    a-vi-vi-sisiya   1SG-IMPF-CAUS.PAST-speak   = 'I was speaking'

    b. Reduplication of the root (if there isn't a derivational prefix)
    i-kam-kam   3.NONPRES-IMPF-go

· Inkelas & Zoll take these cases to all involve reduplication targeting *verbal stems*.

✥ This is a clear argument for morphological targets, to be sure, but this analysis still leaves open the question of whether or not *affixes* can be legitimate targets for reduplication.

Hungarian – based on Piñon (1991)

(29) Reduplicating preverbs in Hungarian (Piñon 1991, following Soltész 1959)
        meg-meg-   'PERF-PERF-'
        ki-ki-   'out-out-'
        be-be-   'in-in-'
        belém-belém- 'in.me-in.me-'
        rám-rám-   'on.me-on.me-'

(30) Verb prefix reduplication for modification of verb meaning in Hungarian
        elmegy   →   *elelmegy*   (Moravcsik 1978: 306)
        away-goes   away-away-goes
        'He goes there'   'He occasionally goes there'

        belenéz   →   *belebelenéz*
        into-looks   into-into-looks
        'He looks into it'   'He occasionally looks into it'

· Unlike other preverb classes, Piñon (1991) analyzes the reduplicated preverbs as being
        syntactically productive (rather than lexical), and verbs with them attached have different
        distributional properties w.r.t certain kinds of movement operations.

· Is there room for a root-based or stem-based analysis here?
        ↳ It's not obvious....but, then again, ... maybe?

4. Discussion

Thus far we've seen:

        · Reduplication targeting verbalized roots in Hiaki;

        · Reduplication targeting roots (regardless of categorization) in Salish (Jelinek & Demers
                1997);

        · Reduplication targeting *stems* (Dyirbal, Boumaa Fijian, Amele, Gapapaiwa);

        · Possible affix ("preverb") reduplication in Hungarian?

· Would it be a strike against MDT if affixes aren't legitimate targets for reduplication?
        Why shouldn't they be subjected to doubling in this construction-based theory?

        ↳Maybe some kind of diachronic or evolutionary story, or something to do with
                language acquisition?

· True morphological reduplication (and not just expressive doubling) seems to occur relatively
        late in language acquisition, just like recursion (Dressler et al. 2014)

· There's still an open question, then, as with the case of affix recursability, as to which affixes
        can reduplicate—and also: **Why those (if any) and not others?**

(Selected) References

Caballero, Gabriela. 2014. Derivation in Uto-Aztecan: Rarámuri. In *The Oxford Handbook of Derivational Morphology*, ed. by Rochelle Lieber & Pavol Štekauer. Oxford University Press, pp. 724-742.

Caballero, Gabriela, & Alice C. Harris. 2012. A working typology of multiple exponence. In F. Kiefer et al. (Eds.), *(Ir)Regularity, Analogy, and Frequency: Selected Papers from the 14th International Morphology Meeting, Budapest, 13-16 May, 2010*. Amsterdam, John Benjamins, pp. 163-188.

Dressler, Wolfgang, et al. 2014. Reduplication, repetition, hypercharacterization, and other affix-doubling in child language. In Stela Manova (Ed.), *Affix Ordering Across Languages and Frameworks*. Oxford University Press, pp. 259-275.

Escalante, Fernando. 1990. Voice and Argument Structure in Yaqui. Ph.D. dissertation, University of Arizona.

Frampton, John. 2009. *Distributed Reduplication*. Cambridge, MA: MIT Press. (Linguistic Inquiry Monographs 52).

Harley, Heidi, and Maria Florez Leyva. 2009. Form and meaning in Hiaki (Yaqui) verbal reduplication. *IJAL* 75.2: 233-272.

Harley, Heidi, and Jason D. Haugen. *in prep*. On the grammatical expression of inception and cessation in Hiaki (Yaqui). Ms, University of Arizona and Oberlin College.

Harley, Heidi & Tubino Blanco, Mercedes. 2013. Cycles, Vocabulary Items, and stem forms in Hiaki. In *Distributed Morphology Today: Morphemes for Morris Halle*, Ora Matushansky and Alex Marantz (eds.),117-134. Cambridge, MA: MIT Press.

Haugen, Jason D. 2003. Allomorphy in Yaqui reduplication. In L. Barragan and J. Haugen (eds.), *Studies in Uto-Aztecan*. Cambridge, MA: MIT Working Papers on Endangered and Less Familiar Languages #5, pp. 75-103.

Haugen, Jason D. 2004. Denominal verbs in Yaqui. In Z. Estrada Fernández, A. Fernández Garay, and A. Álvarez González (eds.), *Estudios en lenguas amerindias: Homenaje a Ken L. Hale*. Hermosillo: Editorial Unison, pp. 229-267.

Haugen, Jason D. 2014. Hiaki (Yaqui) reduplication redux: Evidence for morphological *and* prosodic targets in syllabic reduplication. *IJAL* 80.4: 507-32.

Haugen, Jason D., and Heidi Harley. 2013. Head-marking inflection and the architecture of grammatical theory: Evidence from reduplication and compounding in Hiaki (Yaqui). In *The Persistence of Language: Constructing and Confronting the Past and the Present in the Voices of Jane H. Hill*, edited by S. Bischoff, D. Cole, A. V. Fountain, and M. Miyashita. Amsterdam: John Benjamins Publishing Company. (Culture and Language Use 8), pp. 133-174.

Haugen, Jason D., & Cathy Hicks Kennard. 2011. Base-dependence in reduplication. *Morphology* 21: 1-29.

Hicks Kennard, Cathy. 2003. Copy but don't repeat: the conflict of dissimilation and reduplication in the Tawala durative. *Phonology* 21.3: 303-323.

Hurch, Bernhard (Ed.). 2005. *Studies on Reduplication*. Berlin: Mouton de Gruyter.

Inkelas, Sharon and Cheryl Zoll. 2005. *Reduplication: Doubling in Morphology*. Cambridge: Cambridge University Press. (Cambridge Studies in Linguistics 106).

Jelinek, Eloise, and Richard Demers. 1997. Reduplication as a quantifier in Salish. *IJAL* 63.3: 302-15.

Key, Gregory. 2013. The Morphosyntax of the Turkish causative construction. Ph.D. dissertation, University of Arizona.

Lander, Yury A., & Alexander B. Letuchiy. 2010. Kinds of recursion in Adyghe morphology. In H. van der Hurst (Ed.), *Recursion and Human Language*. Berlin, DeGruyter Mouton, pp. 263-284.

Lyutikova, Ekaterina, and Sergei Tatevosov. 2014. Recursive passivization: A causative coercion account. In Stela Manova (Ed.), *Affix Ordering Across Languages and Frameworks*. Oxford University Press, pp. 17-52.

Raimy, Eric. 2000. *The Phonology and Morphology of Reduplication*. Berlin: Mouton de Gruyter.

Rubino, Carl. 2013. Reduplication. In Dryer, Matthew S. & Haspelmath, Martin (Eds.), *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available online at http://wals.info/chapter/27, Accessed on 2015-09-25).

Ryan, Kevin, & Russell Schuh. 2010. Suffix doubling and suffix deletion in Bole (part 2). Ms, available online: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.305.1646&rep=rep1&type=pdf

Travis, Lisa da Mena. 2003. Reduplication feeding syntactic movement. In Somesfalean, S. (Ed.), *Proceedings of Canadian Linguistics Association (CLA) 2003*. Université du Québec à Montréal.

Tubino Blanco, Mercedes, Heidi Harley, & Jason D. Haugen. 2009. The syntax of hybrid verb/affix lexemes and clause fusion in Hiaki (Yaqui). *Rice Working Papers in Linguistics* 1. Available online:http://scholarship.rice.edu/bitstream/handle/1911/21855/Harleyetal_RWP2_hybrid.pdf?sequence=1

Zimmermann, Eva. 2012. Affix copying in Kiranti. In *Proceedings of ConSOLE XIX*, 343-367.