Pluractional Reduplication in Northern Paiute

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1 Introduction

In this talk, we will discuss pluractionality in Western and Central Numic. Most of the data comes from published sources, although we present new data from our own fieldwork on a variety of Northern Paiute spoken around the Mono Lake area in California, Mono Lake Paiute (MLP).

Newman (1990) draws a distinction between two types of verbal plurality:

- INFLECTIONAL PLURALITY
  Agreement with the subject or the object (e.g. *They **are** fishing for salmon*)
- DERIVATIONAL PLURALITY
  Semantic plurality of the event denoted by the verb (e.g. *flap* vs. *flutter*)

Derivational plurality is also called PLURACTIONALITY by Newman (1980) to "set apart the semantically endowed verbal plurals from the inflectional agreement stems" (13).

Why do we care about pluractionality?

- All Numic languages mark pluractionality, either by morphological processes like gemination and reduplication or by affixation.
- We focus primarily on reduplication and gemination, both of which are common markers of pluractionality cross-linguistically (e.g. see Garrett 2001 for Yurok; Conathan and Wood 2003 for Karuk and Meskwaki).

Our talk has two goals:

1. *Descriptive.* What are the meanings associated with reduplication and gemination in the languages of Western and Central Numic? How does this fit into the typology of pluractionality already proposed for other languages?
2. *Dialectological.* What is the relationship between the forms attested in each language? Are any similarities the result of common ancestry or language contact?

2 Background

2.1 Typology of Internal Aspect

Smith (1991) creates a typology of the internal aspect (Aktionsart) that verbs may have:

Situations	Static	Durative	Telic	Example
States	[+]	[+]	n.a.	*like*
Activity	[-]	[+]	[-]	*jog*
Accomplishment	[-]	[+]	[+]	*clean*
Semelfactive	[-]	[-]	[-]	*knock*
Achievements	[-]	[-]	[+]	*hear*

2.2 Typology of pluractionality

Cusic (1981) distinguishes two types of pluractionality:

- EVENT-INTERNAL REPETITION (repetitive action)
  "[T]he units of action are conceived of as confined to a single occasion, and to a single event on that occasion" (78).
- EVENT-EXTERNAL REPETITION (repeated action)
  "[T]he units of action are potentially distributable, though not necessarily distributed, over multiple occasions" (79).

(1) The mouse nibbled the cheese. [event-internal]
(2) The mouse bit the cheese over and over again/repeatedly. [event-external]

Yurok (Algic: Northern California). Yurok is one of the two known languages to have distinct morphemes to mark event-internal and event-external pluractionality (the other being Latin; Garrett 2001). In what Wood and Garrett (2001) call the Repetitive, reduplication of part or all of the verb stem results in event-internal pluractionality.

(3)

Base		*Repetitive form*	
ckem	'to count'	**ckem**-ckem	'to make small tatoo marks'
pegon-	'to split'	**peg**-pegon-	'to split in several places'
prkwrh(s-)	'to peck or knock'	**prkw**-prkwrh(s-)	'to peck or knock repeatedly'
tek(toy-)	'to grow' (of plants)	**tek**-tekon-	'to grow in tufts'
t'k'eroh(s-)	'to thump ...'	**tk'er**-t'k'eroh(s-)	'to thump repeatedly'

In contrast, the Intensive infix *-eg* conveys event-external pluractionality.

(4) *Intensive*

a. niko'hl ho 'ne-k**rg**rtk-rk'
always PAST 1-go.fishing.INT-SG
'I always used to fish.'

b. cu ki ni'iin-o' to' kic ni n**eg**i'iin-o'
HORT FUT be.two-PL and PERF LOC be.two.INT-PL
'Let us cohabit. We have been going together all this time.' [Wood and Garrett 2001]

3 Central and Western Numic

3.1 Northern Paiute

'Gemination'. Both the Oregon (ONP; Thornes 2003) and Mono Lake (MLP; our own fieldnotes) varieties of Northern Paiute have a phonological process called 'gemination' in the literature but actually is just fortition of a lenis stop. (When no lenis stop is present, a glottal stop is inserted.)[1]

(5) a. O'o **habi**-u.
DEM lie.SG-PNC
'Lie down over there!'

b. Yau nü taiwano **happi.**
DEM I all.day lie.SG.DUR
'I've been lying here all day.' [ONP; Thornes 2003:413]

(6) a. Nüü ika kutsu **saa**-kwy.
I this.OBJ meat cook-FUT
'I'm going to cook the meat.' [MLP; elicitation, BP06-2]

b. Nüü mana'wi **sa'a**.
I for.a.long.time cook.DUR
'I cook for a long time.' [MLP; elicitation, BP09-3]

Gemination, or glottal stop insertion, conveys a longer length of the event expressed by the verb. As such, the base verb must be durative (as opposed to punctual). All attested textual examples in Thornes (2003) have either Accomplishment or Activity base verbs.

(7)

Form	*Gloss*	*Page (Thornes 2003)*
ü'na**'**wi	'say'	477
pi**tt**ü	'arrive'	485, 489
pu**nn**i	'see'	495, 525

[1] The orthography of all Northern Paiute examples has been regularized to facilitate comparison. The following equivalences hold between the system utilized by Thornes (2003) and ours: [ɨ] = [ü], [?] = ['']. The [e] in Western Shoshone examples has also been replaced by [ü]. Glottal stops have been regularized throughout. The marking of final features has been suppressed as well for ease of readability.

hu**'**u	'flow'	497
ka**tt**ü	'sit'	497
dabi**'**i	'keep on'	521
na**'**a	'grow'	521
ki**mm**a	'come'	523
ha**nn**i	'do'	528, 529
ka**mm**a	'taste (intr.)'	530

Reduplication in ONP. Thornes (2003) describes a process of reduplication in ONP that coveys an iterative/distributive meaning. Depending on the Aktionsart of the verb, this reduplication results in either event-internal or event-external pluractionality.

(8) *Event Internal (Iterative)*
Su=nana u=**bi**-pi-ma-tatsi.
SUBJ=man 3=RED-IP/butt-IP/hand-slap
'The man is spanking him/her.' [ONP; Thornes 2003:412]

(9) Kai üü=sa'a i=kwassi **wi**-witso'i-u-si wi'i-u-dua mii tia'a.
NEG 2=might 1=tail RED-wag.swing-PNC-SEQ fall-PNC-SUBJ QUOT thusly
'No, you might fall off when I wag my tail!' [ONP; Thornes 2003:477]

(10) *Event External (Distributive: over individuals)*
a. Yaisi ka=ibii pa'a-kwai hau **ma**-mani-püni
then OBJ=DEM high-LOC how RED-do/attach-PFV.STAT
'and then (they) attach it all the way up to here…' [ONP; Thornes 2003:412]
b. Mi=mago hi-hima-na.
our=bag RED-carry-PTCP
'(we) carrying our bags.' [ONP; Thornes 2003:520]

(11) *Event External (Distributive: over time)*
Nümmi waha u=**wo**-kwo'isa-si ka-oka-himma.
we.EXCL twice 3=RED-wash-SEQ OBJ-that-something
'Having twice washed it out, those things.' [ONP; Thornes 2003:524]

The Semelfactive events in (8-9) yield event-internal pluractional forms upon reduplication. All other Aktionsart types yield event-external pluractionality, as shown in (10-11).

Reduplication in MLP. Interestingly, as far as we can tell MLP does not possess a reduplication strategy for conveying external or internal pluractionality. This is a point of variation between the dialects. Instead, MLP signals some of these same semantics with a suffix *-heggwi.*

(12) *Event External (Distributive: over time)*

a. Isu nana'a ika tühiidda pahe koti-**heggwi**.
this.SUBJ man this.OBJ deer three shoot-HEGGWI
'The man shot the deer three times.' [MLP; elicitation, BP13-5]

b. Pauma-**heggwi**.
rain-HEGGWI
'It rains now and then.'

(13) *Event Internal*
Pauma-wünü-**heggwi**.
rain-stand-HEGGWI
'It's raining off and on (intermittently).' [MLP; elicitation, BP12-5]

This suffix in MLP may be cognate to the habitual-repetitive aspect suffix *-yakwi* ~ *-yai* in ONP. We expect, however, that *-heggwi* covers a broader range of pluractional semantics than *-yakwi*, doing some of the work that reduplication does in ONP. Further investigation is needed to determine if this is true.

(14) a. ... una-'yu wasa-naga-'yu yaga-na naka-'**yakwi**.
DEM-ABL sagebrush-among-ABL cry-PTCP hear-HAB
'…(we) used to hear (it) calling out there among the sagebrush.'
[ONP; Thornes 2003:410]

b. Su=mi=naa püno'o awamoasü yotsi-u-**yai**-na.
NOM=1.PL=father also early.morning rise-PNC-HAB-PTCP
'Also, our father would get up early in the morning…' [ONP; Thornes 2003:410]

3.2 Mono

Stem-final reduplication. Unlike Northern Paiute, Mono expresses durativity by means of reduplication of the final syllable of the stem (or reduplication + *hi*). However, it can also express iterativity.

(15)

qwaca	'to fall'
qwaca**cahi**hti	'to fall a long distance (one object)'
	'to fall in rapid succession (several objects)'
kwipi	(no gloss given)
kwipi**hpi**kihti	'shook/shivered'
/putiRhi/[2]	'to go/come out in succession (several objects)'
/tanyRhi/	'to keep ringing (of a bell)' [Lamb 1957:264]

[2] In this example and the one that follows 'R' represents the underlying representation of the reduplicant.

Stem-initial reduplication. Reduplication of the 1st syllable is only found with one stem.

(16) *Event External (Distributive)*

pojoha	'to run'	
popojoha	'to run distributively'	[Lamb 1957:285]

To express pluractionality, Mono primarily utilizes affixes.

(17) *Event External (Distributive: over individuals)*

mija	'to go'	
mija**ja'wi**	'to go separately'	
	(i.e. in different directions or at different times)	
pithy	'to arrive'	
pihtyhu**ja'wi**hti	'several just/suddenly arrived'	
	(having come from separate directions)	[Lamb 1957:274]

(18) *Event External (Distributive: over locations)*

tyhka	'to eat'	
tyhka**nawi**	'to eat in several places'	
hupijatu	'to sing'	
hupijatu**nawi**	'to sing in several places'	[Lamb 1957:274]

(19) *Event External (Distributive: over time)*

cihcuka	'to point at'	
cihcuka**hpa'i**	'to point at repeatedly'	
mija	'to go'	
mija**hpa'i**	'to go repeatedly'	[Lamb 1957:268]

3.3 Tümpisa Shoshone (Panamint)

Gemination. Like Northern Paiute, Tümpisa Shoshone makes use of gemination to signal durativity. The forms listed by Dayley (1989) are all Activity or Accomplishments.

(20)

Root	*Pluractional form*		
ha**p**i	ha**pp**i	'lie (down)' (sg.)	
ka**t**ü	ka**tt**ü	'sit (down)' (pl.)	
muka**t**u	muka**tt**u	'think'	
nu**w**i	nü**mm**i	'walk around'	
pu**n**i	pu**nn**i	'see'	
pusi**kw**a	pusi**kkw**a	'know'	
wü**n**ü	wü**nn**ü	'stand' (sg.)	
ya**k**e	ya**kk**e	'cry'	
yü**kw**i	yü**kk**wi	'say'	[Dayley 1989:63]

(21) Tümpi **kattü** paa kuppa.
rock sit.DUR water in
'The rock is sitting in the water.' [Dayley 1989:63]

Reduplication. Tümpisa Shoshone does not have a productive reduplication strategy. Instead, some iterative and durative semantics are encoded by the suffix -*'ih*.

(22) Nüü Tonia taanoo**'i**kwantu'ih.
I Tony-O visit-go.along-DUR-FUT
'I'm going to go along and visit Tony.'
(23) Tunaa nüü tuupükka**'i**ppühantü.
extremely I get.mad.DUR-PAST
'I got extremely mad [and stayed that way].' [Dayley 1989:63]

Another suffix -*mmih* codes habitual, iterative, and durative activities.

(24) Sape'esü tühüyanna kutti**mmi**tü.
long.ago deer shoot-HAB-HAB
'They used to shoot deer.'
(25) Tammü tattsikohi**mmi**nna.
we.INCL with.feet-slip-ITERATIVE-SFX
'We are slipping around.'
(26) Kee nü üitsü'i**mmi**tü.
not I be.cold-DUR-IMPRF
'I wasn't cold.' [Dayley 1989:61]

We are unable to ascertain the exact semantic domain of these suffixes from the materials available to us, but they seem to be to some degree coextensive with that covered by reduplication in Northern Paiute.

3.4 Western Shoshoni

Gemination. Gemination of a stem medial consonant seems to bear the same function as in Northern Paiute and Tümpisa Shoshone.

(27)

Root	*Pluractional form*	
ü**kw**i	ü**kkw**i	'smell' (tr.)
kwa**n**a	kwa**nn**a	'smell' (intr.)
ha**p**i	ha**pp**i	'lie (down)' (sg.)
kwa**p**i	kwa**pp**i	**'**lie (down)' (pl.)
wü**n**ü	wü**nn**ü	'stand' (sg.)
ka**t**ü	ka**tt**ü	'sit (down)' (sg.)
yü**kw**i	yü**kkw**i	'sit (down)' (pl.)

kwi**t**a	kwi**tt**a	‘defecate’	
ma**k**a	ma**kk**a	‘feed; give’	
nü**m**i	nü**mm**i	‘travel; live’ (sg.)	
pai**ts**ü	pai**tts**ü	‘holler, to call out’	
pai**ts**ü	pai**tts**ü	‘go get (a person)’	
tai**kw**ah	tai**kkw**a	‘speak’	
ya**k**ai	ya**kk**ai	‘cry’ (sg.)	
yü**kw**i	yü**kk**ai	‘say’	
yü**ts**ü	yü**tts**ü	‘fly; get up’ (sg.)	
yo**t**i	yo**tt**i	‘fly; get up’ (sg.)	[Crum and Dayley 1993:94]

(28) a. Ikkih ha**p**i
here lie
‘Lie here.’

b. Sutü api pün kappai pa’a ha**pp**i.
that.one there her bed on lie.DUR
‘She’s lying on her bed.’ [Crum and Dayley 1993:94]

Reduplication. W. Shoshoni does not have a productive reduplication strategy. Instead, the suffixes -*mmi* and -*‘i* are used.

(29) *Event External (Distributive: over time)*

a. Utem pipusi tuhupükkasi piwonuü**mmi**nna.
that stink.bug get.mad-SUB behind-stick.up-REPETITIVE
‘That stink bug sticks up his behind when he gets mad.’ [Crum and Dayley 1993:96]

b. Ü hakai nahatün ma masu’na**mmi**?
you how doing her annoy-REPETITIVE
‘Why are you annoying her?’ [Crum and Dayley 1993:97]

(30) *Event External (Distributive: over time)*

a. Nü noha nü pahanii nokatünka**’i**yu.
I used to my nieces-O care for-HAB
‘I used to babysit for my nieces from time to time.’

b. Sotü oyon kaiyum pite**’i**tün.
that one always late arrives-HAB
‘He always comes late.’ [Crum and Dayley 1993:97]

3.5 Summary

- All the Western and Central Numic languages have a way of marking durativity, which in most is done via gemination. Mono, however, uses suffixal reduplication, though with a wider range of meanings.

- Only ONP has productive reduplication marking pluractionality on the verb. There is a predictable mapping between the internal aspect of the verb base and the type of pluractionality.

(31) *Mapping between Aktionsart and pluractional form in ONP*

Base		*Type of pluractionality*
Semelfactive	→	Event Internal
Accomplishment	→	Event External
Activity	→	Event External

In other languages, the same range of meanings is expressed by a dossier of suffixes.

⇒ Why is pluractional reduplication absent in all the languages of Western and Central Numic except for ONP?

4 Loss of reduplication

The absence (or limited application) of pluractional reduplication in (at least) Mono, MLP, Tümpisa Shoshone, and W. Shoshoni is quite striking given that it is present in all other Northern Uto-Aztecan languages, including the languages of Southern Numic.

There are two logical possibilities for how this situation came about:

i) Pluractional reduplication had already been lost in Proto-Western and Central Numic, and thus is a shared genetic characteristic of the present day languages.

ii) The loss of pluractional reduplication is a result of language contact.

Given the facts of ONP, namely that it has productive pluractional reduplication, it is unlikely that the first possibility is correct. (That is, unless ONP redeveloped reduplication independently.)

The more likely scenario is the second. The loss of pluractional reduplication is a shared areal feature of the southwest sections of Western and Central Numic.

The precise mechanism by which this feature spread is yet to be determined.

Appendix: Suppletive Verbs

The suppletive verbs in Western and Central Numic that involve reduplication are given below:

(32) *Tümpisa Shoshone*

Singular	*Dual*	*Plural*		
nukkwi	**nu**nukkwi	nutaan	'run'	
to'eh	**to**to'eh	küa	'emerge	
wüwü	**wü**wünü	toppangih	'stand'	
kimma	**ki**kimma	kimmah	'come'	
ko'eh	**ko**ko'eh	ko'eh	'return, come back'	
mi'a	**mi**mi'a	mi'a	'go'	
pituhun	**pi**ppittuhun	pitükkan	'arrive'	
potso		**po**potso	'drip'	
waya		**wa**wayanoo	'burn'	[Dayley 1989:73-74]

(33) *Western Shoshoni*

Singular	*Dual*	*Plural*		
nukki	**nu**nukki	nutaan	'run'	
to'ih	**to**to'ih	küa	'emerge, come out'	
nümi	**yü**yünka	yünka	'travel; live'	
wünü	**tsa**tsakki	topoi	'stand'	
mi'a	**mi**mi'a	mi'a	'go'	
pitü	**pi**ppitü	pitü	'arrive'	
yua	**yu**yuah	waiku	'enter, go in'	
ya'i	**ya**ya'ih	waiku	'enter, go in'	
yetsü	**yo**yotih	yoti	'get up, fly'	
pahi	**pa**pahi	sawü'i	'fall off'	[Crum and Dayley 1993:100-101]

(34) *Eastern Mono*

no reduplicated forms [Norris 1986]

(35) *Mono Lake Paiute*

Singular	*Dual*	*Plural*		
mia	**mi**mia	mia'a	'go'	[elicitation, BP12-2]

(36) *Oregon Northern Paiute*

Singular	*Dual*	*Plural*		
hapi	kwapi	**wa**kwapi	'lie'	
kima	**ki**kima	kima'a	'come'	
mia	**mi**mia	mia'a	'go'	
kochü	**ko**kochü	kochümmi	'return'	[Thornes 2003:316]

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