Nooksack REDUPLICATION

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C. Introduction. This paper is based on field notes and tapes made by Paul Petzer (notes only), Pamela Amoss, Barbara Efrat, Laurence Thompson, and myself with the last fluent speakers of Nooksack, George Swanaset and Sindick Jimmy, and the last partial speakers of Nooksack, Mrs. Louise George and Mrs. Esther Fidele. My analysis from Feb. 1983 to Feb. 1984 was supported by a grant from the Social Sciences and Humanities Research Council of Canada. Further research towards a computerized dictionary of Nooksack described in Galloway 1983a, 1983b, 1984a and Galloway and Richardson 1983, forms are cited with linguists' and native speakers' initials. Comparisons of these with each other, with tapes, and with forms from neighboring languages and especially from Upriver Halkomelem and a computerized dictionary of all extant Nooksack material will be supported by a three-year grant from the National Endowment for the Humanities. Further research towards a computerized dictionary of Nooksack described in Galloway 1983a, 1983b, 1984a and Galloway and Richardson 1983, forms are cited with linguists' and native speakers' initials. Comparisons of these with each other, with tapes, and with forms from neighboring languages and especially from Upriver Halkomelem and a computerized dictionary of all extant Nooksack material will be supported by a three-year grant from the National Endowment for the Humanities. Further research towards a computerized dictionary of Nooksack described in Galloway 1983a, 1983b, 1984a and Galloway and Richardson 1983, forms are cited with linguists' and native speakers' initials. Comparisons of these with each other, with tapes, and with forms from neighboring languages and especially from Upriver Halkomelem and a computerized dictionary of all extant Nooksack material will be supported by a three-year grant from the National Endowment for the Humanities.

In line with methods of phonological comparison and analysis of Nooksack described in Galloway 1983a, 1983b, 1984a and Galloway and Richardson 1983, forms are cited with linguists' and native speakers' initials. Comparisons of these with each other, with tapes, and with forms from neighboring languages and especially from Upriver Halkomelem (UHK), which has influenced Nooksack and its speakers for several centuries, will allow us to ascertain the phonological forms and the meanings of most of the Nooksack words and affixes. (BG shows my transcriptions from the tapes of other workers.)

The Nooksack phonemes are /p, t, (k), kʰ, q, qʰ, ?, p', t', k'ʰ, q', q'ʰ, c, ɕ, (e'), ɕ', h', (o), s, š, (x'), ʰ, x', ʰ, h, m, n, ŋ, l, w, l, ɾ, o, (a), 0', ?, #. /k/ is found in borrowing from Chinook Jargon, English, etc., but also in one word of possible Nooksack origin. /e/ and /e'/ in the speech of GS and sometimes EF (but not that of SJ and LG) replace /o/ and /ɔ'/ through UHK influence. GS, also by UHK influence, sometimes has /e/ - /o/ and /ɛ'/ - /ɔ'/ where other speakers have /e/ and /ɛ'/.

In many words with /ɛ'/ through UHK influence. /a/ appears in loans from or words influenced by UHK or Lushootseed (l). Nooksack unstressed /o/, /ɛ'/ and /ɔ'/ usually correspond to UHK unstressed /a/, and they become Nooksack /a/ in some cases, through UHK influence. Conversely, /a/ sometimes replaces /a/ at slower, careful speeds in Nooksack.

Nooksack vowel allophones include, for /i/, [i, I, e], /ɛ'/ /ɛ, æ/, /a/ [u, U, o, o], (/a/ [a]). Nooksack /o and R? (where C = consonant, R = resonant) correspond to UHK ·C and ·R, or R and are sometimes so-influenced in Nooksack.

The examples below are phonemicized (with phonemic differences between speakers retained). The affixes are shown in morphophonemic transcription, where C₁ = the first consonant of the root, V₂ = the second vowel of the root, and -A - means delete the preceding vowel and replace or ablaut it to /a/. Most types of reduplication in Nooksack are clearly inflectional; some may be old aspect inflections, as Suttles 1980 showed for Musqueam Halkomelem, but now borders on derivation. Ablaut is much less common. Two question marks indicate possible but not proven affixes; single question mark indicates some uncertainty of form or meaning.

1. Ablaut and Reduplication Types with Examples.

//-A~// 'plural': BG:LG swa'w≤los and BE:JS swa'w≤los 'young men' (BG:LG swa'w≤los 'young man'). This ablaut type, with only one example so far, seems likely to be borrowed from UHK, which has only swa'w≤los 'young man', swa'w≤los 'young men' with this plural; further evidence of this borrowing is the /a/ which appears only in borrowings or as a rare alternate for /ɛ'/ or /ɔ'/ before /a/ usually. Final evidence is that due to the historical vowel shift of unstressed vowels to /a/ in HK, HK has developed extensive inflectional ablaut, which Nooksack seems to otherwise lack entirely.

??//-A~// ' (derivational)': BE:JS spawamex' 'canes' (poss. /a/pen-A~amex' with pen- 'plant, bury' as in BG:JS pen-šxîl 'planting (as an organized activity).'

??//-A~// or ??//A~// ' (derivational)': PA:GS p'to'-in
'squeeze (of boil or flesh)' and PA:GS p'êq'i-ôs (-ôs 'face')
'cradle basket' (sometimes cranial deformation boards were
used in the cradle baskets, which might be seen as squeezing
the face).

//\-V /- (after V ) '?plural actors': PA:GS t'êq'ëmek
'in a bunch playing'--PA:GS t'êq'ë 'to play'.

//cV /- // '?plural': BE:SG t'éq'ëmek - t'éq'ëmek 'older
cousins' (-têm - têm 'reciprocal') (cf. BE:SG sqë 'older
cousin (child of older sibling)' and PA:SG sqë 'older person
of ego's generation').

//(?)cV /- // (after V ) '?diminutive': BG:SG yôq'mamë
'small spring salmon'--BG:SG yôq'më 'spring salmon', BG:SG
q'âq'ëmey? 'young girl, small girl'--BG:SG, BE:SG, etc. q'âmëy?
'adolescent virgin girl', BE:SG also has q'ëq'mëmey? and
q'âq'ëmëy? 'young girl (2 to 7 yrs.)', BG:LG, PA:GS nâmëtowx
'early in the morning' and PA:GS x'nämët - BG:LG x'nâmët
'last night', BE:SG x'nâmëtowx 'getting dark last night'--
BG:LG s-nâmë 'night', PA:SG q'ëmëxic 'lie down awhile [a lit-
tle]' and PA:SG têmëxic 'lots of people lying down for
awhile'--BG:LG q'ëxic 'lie down'.

//cV /- cV /- // '?resultative/dispositional' (often
with qëm-, qës- 'stative' or s- 'nominalizer'): LT:LG
pônënx 'see it many times, always seeing s-th' (cf.
LT:LG pôpwonëx 'see s-o/a-th several times')--LT:LG pôwëx
'see s-o/a-th (once)', LT:LG q'âwq'?wëq 'she's married
(has a husband)', LT:LG nqënëmë 'it's shallow', LT:LG and
BE:LG nfin'nišim (long) story, news'--LT:LG and BE:LG nfinim
'story', BE:LG nfin'nišimtowax 'they're telling stories
to one another', possibly BE:SG x'ëq'i-qëc 'x'oq'i-qëc 'crazy,
wild' (cf. PA:SG xëq'iwx 'promiscuous'), LT:LG q'âq'ëqëm
'quiet water'.

//cV /- cV /- // (after V ) '?plural' only in one demon-
strative pronoun: BG:GS tàmëh-x'ëq'i-ôm - tèmëh-x'ëq'i-ôm
'they, those people'--BG:GS, LT:LG, etc. têmëh-x'ëq'i-ôm 'he, that
person'; but the suffix -ôm may be present in PF:GS x'ëq'i-ôm
'few, a few' and thus segmentable.

//cV /- // (after V ) 'affectionate/pet name': BE:SG
tàtëm 'mom, mother'--BE:SG tèm 'mother'.

//cV /- cV /- // 'plural (many, usu. collective)': BG:GS
mëmëmës 'their children', BG:SG t'éq'ëmek 'grandchildren
(a whole bunch)';--BG:SG t'éq'më 'grandchild', BE:SG st'êq'i-ix
'tribes';--BE:SG st'i-ix 'person, Indian', BG:LG yôq'i-xwën
'arrows'--BG:LG yôq'i-xwën 'arrow', LT:LG sf'w'ëq? 'men'--
LT:LG sf'w'ëq? 'man', LT:GS + LT:LG sqem 'ep - sqem 'ep
'lots of groups, bunches, bunched together', BE:LG
sôq'sôq 'ay(?)' 'younger siblings'--BE:LG sôq'sôq 'ay(?)' 'younger
sibling'.

//cV cV /- // 'dispositional aspect (now derivational)'
BG:LG x'ôq'ë 'stammer, stutter', BE:LG sôq'sôq 'atend
'hand-spinner', BG:LS sqy'siy? 'be afraid', LT:GS k'ëy-k'ëm'som
'strong', LT:LG sf'wic 'snipe (variety)' (cf. UHK wëwis-
wife-lyc 'snipe', named for its cry), BG:LG k'ëy-k'ëm 'ay?' and
PA:GS k'éy-kéy and k'ëy 'bluejay', PA:GS st'ël'tem 'singer',
BG:LG x'ëq'emëy 'pregnant', LT:LG q'ëxq'e-ôx? 'tin (metal)
and PA:GS q'ëxq'e-ôx? 'tin can'.

//cV cV /- // 'dispositional aspect (now derivational)'
BE:LS qëq'ë 'slippery' (cf. UHK ñmim 'to slip, skid').

//cV /- // (after V ) or //cV /- // (after cV /- // (deriva-
tional): BG:SG, BE:SG, etc. (ay) nfiğiim 'talking, be
talking'--LT:LG nfişim 'speak, talk', BE:LS ñy nfiğiimtowax
'telling stories [to each other]' (mâyay? - ñy? - ñy?
'continuative aspect' proessed), LT:LG snfiçiim 'language'.

//cV cV /- // 'dispositional/completive (derivational)':
BE:SG, BG:LG, LT:LG k'ëy-k'ëm 'red'--BE:LS k'ëm 'kind
of partly red, pink', BG:LG x'ëq'i-k'ëm 'grey', LT:LG, PF:GS
q'ëq'i-xwën 'black'--BG:LS q'ëxq'i-xwën 'kinds of black [get
black]', LT:LG pôq'ëq'ë 'yellow', LT:LG 4'l?yìm 'dreaming',
BE:LS q'ëq'ë 'drowned'--BG:LS q'ëc 'drift downstream',
PA:GS, BG:LG q'mi-q'mi 'ôx?li? 'overcooked', BG:LG q'ëxq'i-ôx? 'slim
[get dirty]', LT:LG k'slêk'ëm'ils-w 'murderer' (cf. UHK
k'të 'to hide', ñw'm 'body').

//cV cV /- // 'derivational (dispositional)': LT:LG
qëm'qëm and BE:PS qëm'qëm 'thief'--BE:SG qëm? 'steal',
BE:LS ñmëh-x'ëq'ë 'cyster'--BE:LS ñmëh-x'ë 'hard' (or this
could be -cV cV /- // (C 2 )).
'diminutive': BG:GS nəməxʷ 'one young one', BG:GS nəməkʷ 'all (of a subgroup)', BG:LG sə mistrəxʷ (as Halkomelemized for I of other speakers) 'little owl' and BG:LG sə mistrəxʷ 'little owls'--BG:LG mistrəxʷ 'owl'.


'plural (many of subj., obj., actions, nominals)': BG:JS stəʔəmekʷ 'women', BG:GS, LT:GS pəʔp'ip'iq̌ 'lots of charcoal'--BG:GS pəʔp'ip'iq̌ 'charcoal', BG:GS kəmkəmi̝l 'cabbage'--BG:GS kəməkʷ 'cabbage', BG:JS Ɂəy Ɂəpəʔəpələn 'being hit [repeatedly]', LT:GS pəmə​pə̝nəxʷ 'see then' and LT:IG pəmə​pə̝nəxʷ 'being hit [repeatedly]', LT:GS pəmə​pə̝nəxʷ 'see then' and LT:IG pəmə​pə̝nəxʷ 'seeing a lot of times, seen them (lots of people)', LT:GS cəx̌ cəx̌təm 'several people being baptized (for high-born)(LT:IG) at naming ceremony', BE:JS nəmənəwəm 'people laughing'--BE:JS nəmənəwəm 'one person laughing', BE:JS Ɂəməʔənə nəməsin 'they (group of people) walking', BG:IG sə̝wələqʷ Ɂəp'iq̌ 'person having curly hair' (q'el- 'tangle', -p' 'on itself', -i̝q 'hair, top of head'), PA:JS təməʔnən 'both arms', BE:JS Ɂəməʔənə nəməsin 'grandchildren' (see also less frequent variant under -C1<q= C2<), BE:JS sə̝wələqʷ 'all the cousins from the younger sibling'.

Discussion. The examples above show three varieties of ablaut and 24 varieties of reduplication. One ablaut, -A̝-, as noted above, is clearly a borrowing from UHk. The other two are derivational, the change signifying a shift in meaning but not apparently adding consistent meaning. More types and more examples will surely be found. Not
much more can be said at present without further examples.

In tabulating the forms and meanings of reduplication types above, some patterns emerge. In trying to determine whether one type is $-V_2$ (infixed after $C_2$) or $-C_2V_1$ (infixed after $V_1$), it turns out that all other reduplication types begin with a consonant and that all infixed reduplication is infixed after $V_1$ of the root. Thus it is more likely that we have $-C_2V_1$ infixed after $V_1$ than the vowel-initial alternative infixed after a consonant.

To summarize the types then:

<table>
<thead>
<tr>
<th>Type</th>
<th>Meaning</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>$-V_1$</td>
<td>'plural actors'</td>
<td>$C_1$- $\text{'dim.'}$, $C_1e-/C_1e- 'pl.'$ (exx. below)</td>
</tr>
<tr>
<td>$-V_1$</td>
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<td>'pl.' (see exx. below)</td>
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</tr>
<tr>
<td>$-V_1$, $C_2$</td>
<td>'dispositional'</td>
<td>$C_1$- $\text{('derivative')}$</td>
</tr>
<tr>
<td>$-V_1$, $C_2$</td>
<td>'dispositional/complete'</td>
<td>$C_1$- $\text{('derivative')}$</td>
</tr>
<tr>
<td>$C_2$</td>
<td>'dispositional/complete'</td>
<td>$C_1$- $\text{('derivative')}$</td>
</tr>
</tbody>
</table>

Twelve of these are prefixed, ten are infixed, and only two are suffixed. All duplicate root material only, never material from prefixes or suffixes. Ten involve exact duplication of $V_1$, while 14 add a new vowel; five involve adding */$ at some place in the reduplication (sometimes sporadic due to UHk influence= UHk usually replaces */$ adjacent to consonant with */$). Three dispositional affixes copy $C_2$ and $C_2$ and (if present in the root) $C_2$, if either $C_2$ or $C_2$ are */$. Six types of reduplication copy both $C_1$ and $C_2$, 16 types copy $C_1$ but not $C_2$; only one type copies $C_2$ without $C_1$, and only one type does not copy any consonant (it adds */$ instead).

Some types can be grouped together by similarity of form and function. For example, $C_1e-/C_1e- both involve stress shift to the last vowel and both have a durative meaning. Further since all are reduplicative in form, all those with identical function can be grouped together as allomorphs, predictable from root forms and/or root meanings. Thus $?V_1$, $-C_1V_1$, $-C_1V_1$- ($-C_1e$), $C_2V_2$, $-C_1V_2$, $C_2e/C_2e-$, $C_2o/C_2o-$, and $-C_1f$ are all allomorphs of a 'plural' reduplicating morpheme, say $(-R_1)$ (shown here on the morphological level with a suffix hyphen to show it is an affix though it has prefixed, infixed, and suffixed allomorphs. Sample allomorphic rules follow (all infixed reduplication follows $V_1$ of the root):

{$-R_1$} 'plural (many)' $\rightarrow$ //-$V_1$/ // 'plural actors' with $\text{'flattening' 'play' and perhaps other roots}$

//-$V_1$/-$V_1$/ with $\text{'older cousin' + -ten/-ten}$

'reciprocal', $\text{'black of eye'}$, $\text{'iris (black of eye)'}$, others

//-$C_1e$/-$V_1$/ with $\text{'older cousin' + -ten/-ten}$

'older cousin' $\rightarrow$ //-$C_1e$/-$V_1$/ with $\text{'older cousin' + -ten/-ten}$

elsewhere in free variation with //-$C_2e$/-$V_1$/

'plural (many, usu. collective)' elsewhere in free variation with //-$C_2e$/-$V_1$/

'many [with nominals]'

The last two allomorphs are both attested with at least two of the same roots, $?\text{iml}c$ 'grandchild' and $\text{sqw}^\text{wmy}$ 'them' only (the suffix $\text{sqw}^\text{wmy}$ is used when there is no distinction in meaning; BE:LG reports the infix in $\text{sqw}^\text{wmy}$ 'younger siblings' and BE:SG reports the prefix in $\text{sqw}^\text{wmy}$ 'all the cousins from the [parent's] younger sibling'. So it seems the latter allomorphs of $-R_1$ are in free variation in the language, with speakers settling at times for their own favorites. The slight variations of meaning are allomorphs predictable semantically or in free variation.

{$-R_2$} 'diminutive' $\rightarrow$ //-$V_1$/ // 'affectionate/pet name'

with $\text{ten 'mother'}$
are attested as diminutives and where both meanings are allowed for both suffixes where the appropriate semantic context is present.

With verbs, the 'diminutive' semantic component can apply to the action (do it a little), or the object (do it to little things, do it resulting in little things); most examples so far, however, apply to the action. Where there are both alternants with and without */-l/ added, the alternate without may be so-influenced by UBk.

Notice that both 'young tree' vs. 'little tree'. Since this meaning distinction is not maintained elsewhere with the suffixes, I suspect both meanings are allowed for both suffixes where the appropriate semantic context is present.

As Suttles 1980 notes, when coining the term "dispositional aspect" for Musqueam, a dialect of Downriver Halkomelem:

"The form can indicate that there is an inclination or propensity for the action or quality expressed by the root or that the action occurs repeatedly. (In some of its usages this form might be called 'potential', while in others 'habitual' or even 'iterative'; I offer 'dispositional' hoping to convey something of this range of meaning.)"

The Nooksack -R forms are cognate in function and sometimes also in form with Suttles Musqueam dispositional forms. The Nooksack -R forms are not cognate in form with the Musqueam dispositional forms Suttles cites, but they are similar in semantic function in a number of cases. This dispositional aspect, as described by Suttles, is also found in UBk -R2, cognate in form and function (Galloway 1977: 105-107), though I called it 'inherent continuative' then, less appropriate than 'dispositional'.

/-R2/ 'dispositional aspect' (prob. petrified and now derivative) → /-C1V1C2(C3)/ with a number of bound roots not independently attested: x'~g'k', s'y?', k'~g'm', w'o (imitative of snipe cry), also with bound roots attested elsewhere: s'el'-ten 'spin-device', s-t'el'-k (nominal-sing-deriv.), q'el-k? 'rattle-get/inceptive' (> 'rin, tin can'), and one root rarely free, k'?ey? 'cry of a) bluejay', and others

→ /-C1sC2/- with q'el (bound) 'slip, slide', others

→ /C1sC2(C3)/ 'dispositional/completive' with some bound color term roots: k'~g'k 'red', x'~g'k 'grey', q'el 'black', p'~g'k 'yellow' (but not others, like k'~g'm 'white'), with s'elym (bound) 'to dream, have a vision', q'el 'drift downstream, drown', q'el? 'cooked', q'el? 'to hide-body', others
The suffix -R 5 'comparative' is cognate with an example of Musqueam 'durative' in extends to the stress shift pattern as well.

The first example of -R 5 is cognate with an example of Musqueam 'durative' in Sutcliff 1989. A formal similarity extends to the stress shift pattern as well.

The suffix -R 6 'person classifier' is used with the remaining numerals.

The suffix -R 7 'derivative' is preferred to -R 1 when -R 2 'diminutive' is present. In a table I compiled from file slips of PA, 21 out of 27 words for flora, fauna and body parts (i.e., animate items) had -R 1 rather than -R 1/-R 2 plurals. But 20 of the 21 replaced -R 1 with -R 1/-R 2 as plural when inflected also with -R 2 'diminutive'. The diminutive reduplication is prefixed first; then the -R 1/-R 2 is infixed after C 1 in the diminutive prefix (but not after C 2 of lexical prefixes, such as xʷ-, noxʷ-, t xe-, etc., nor after s- nominaliser). Only one of the 21 examples from PA did not shift to -R 1/-R 2 in diminutive plural, and it shifted reduplication allomorphs (from C 1 C 2 - 'plural' to C 1 C 2 - plural): PA:GS mft 'blue grouse', mft'mft 'blue grouses', mwt'mwt 'little blue grouse', maws'tmaws 'light blue grouses'. Inanimate nominals and verbs in this list also took originally, or shifted to, -R 1/-R 2 - R 2 in combination with diminutives. No clear preference for -R 1 or -R 1/-R 2 - R 2 was apparent for non-diminutive verbs and inanimates in the list.

Paul Fetzer gathered several thousand examples of plurals, about 100 diminutives, and about 100 diminutive plurals from GS. So it seems these inflections are very productive, though perhaps not as productive as Fetzer thought. He may have been leading GS a little further through using Sapir's article on Comox reduplication to elicit. In Fetzer's file slips (2.1157-2.1160, my numbering) there is a detailed note on George Swanaset's attitude toward diminutives:

"Note: DIMINUTIVES. G.S. did not like to give these forms. Whether this dislike was 'associational' in character or was due to general boredom with 'vocabulary collecting', I cannot say. However, he flatly refused to give dim for non-living items ('V12, the exceptions which were brought out in story-telling'), and he argued rather petulantly about 'creating' dim. for botanical items. His comment usually was: 'Well, this is not 'legal,' i.e., would never be used in speech, but if it were it would go like the following (a form would then be 'created').' And throught, even when discussing fauna items, he would prefer to suffix -ək, 'baby', to a
particular morpheme or word. In addition, any attempts to make dim. by asking for 'little bear' or 'baby cough', were singularly futile. In these cases he would resort to normal affixational devices to produce the desired form: prefixing [preposing] wmt'min 'little' or suffixing -ok 'baby'. He would only produce dim. when I asked for the 'offspring' of an item. It is to be observed that this linkage in G.S.'s mind renders the obtaining of dim. for non-living items extremely difficult. If they exist, they can be elicited only thru text-transcription and the chance uncovering of them."

In PF's section of 84 file slips after a divider labeled, "diminutives", indeed only one is inanimate, <spel·t3lcn> 'little lake'--<yelf·yaxox> 'pl. [+ dim.]'; several are animate though perhaps non-living to non-Indians: <stetc'te'n doc> /ste't'demox/ 'little cadaver'--pl. [+ dim.] catelf'c6dcox/s> /stelfte'c6dcox/ [over-reduplicated] and <s6wn6'nem> /s6'n-x6nem/ 'little medicine man's power' or? 'medicine man's little power'--<s6wn6'nsem> /s6'n-x6nem/ pl. [+ dim.]

Petzer obtained few, if any, diminutives of verbs.

Pamela Amoss's work with GS produced non-animate diminutives more easily, as did work with SJ and LG (by PA, BE, LT, BG). It is hard to tell for certain whether GS's initial animate-only diminutives reflected an original Nook-sack restriction or was more idiolectal. Other Central Salish languages, however, seem more tolerant of diminutives in non-animates and verbs than PF's work with GS implies.

One feature of the diminutive plurals PF obtained is a higher percentage of probably erroneous, over-reduplicated and over-pluralized forms, such as 'little cadavers' above, <spel'rnpicknux> 'little black onions' (vs. BG:JS sp6m6m 'camas') and PF:GS <s6f'se•l6k'wU6> 'little herring' (vs. PF:GS <s6f'wU6> 'herring'). There are 16 such forms showing irregular combinations of plural reduplication with plural -el/-el- infix, or double diminutives with two diminutive reduplications, etc. These seem clearly errors, perhaps from a variety of causes: lack of a real dim. or dim. pl. for these forms, problems with memory, difficult or seldom-used forms, over-insistent elicitation, etc.

Regarding plurals, the huge number of PF:GS examples reflects patterns much more productive than those for diminutive and found with verbs of all types as well as with nominals. For example, PF:GS has the following (phonemization mine): sp6w? 'ice'--pl. spo[w]sp6w? (vs. 'spoon', /s-pw-pw/), sk'6yil 'day'--sk'6[i]yil (vs. 'sky', /sk'ei-kl-yl//), q'6mey? 'adolescent virgin girl'--pl. q'6mey? - q'6mv'6mey, hes6wes q'6mey 'nicely-built young woman'--pl. hes6wes q'6mey, q'6mey 'sweet'--pl. q'veq'vem, k'w6m te h6n 'the fire is hot'--pl. k'w6sk'w6m te h6n6n, p6yon 'to bend [s-th]'--pl. pip6yon (vs. 'piping'--pl. pip6yon, /s-ep-y-yl/), k(e)m6sen 'to spear (s-th)'--pl. m6cesen, te?k 'certain (one)'--pl. te?te?f6k, q6ys 'at present'--pl. q6vq6ys, tx'te?q6 'which way?' (also 'toward, than')--pl. tx'tel6m6, m6q'w6m6m6 m6 q'6m6m6 'be clenches his fist'--pl. m6q'w6m6m6m6 m6 q'6m6m6 'be clenches his fist', he'wam 'to be/to have none'--pl. he'h6wk'wam (perhaps throughout this word), k'w6v6tes 'someone' (vs. 'to spear (s-th)'--pl. k'w6v6tes 'someone'--pl. k'w6v6tes 'someone'--pl. k'w6v6tes 'someone')--pl. k'6v6tes 'someone'.

The above examples show plural reduplication on everything from animate and inanimate nominals to adjectival verbs, adverbial verbs, negative verbs, indefinite nominals (with demonstrative prefixes and interrogative verb roots), and some color terms (adjectival verbs). Unfortunately, with verbs PF seldom indicates what is pluralized: the subject, the object, or the action. But there is evidence for all three types from a few sentence examples and from verbs whose action can only be performed once by the same speaker. Undoubtedly semantic context almost always disambiguates (as in the sentence examples and texts we have).

Just as the context disambiguates what is pluralized semantically, so a plural context often allows plural (and diminutive) inflection to be dropped. Thus, as in Ralkomelem and other Salish languages, plural inflection is usually optional, seldom obligatory. Verbs with plural inflection...
are attested simultaneously with all Nooksack transitivizers, reflexives, statives, inceptives, passives, somatic suffixes, middle voice, prefixes, etc. Continuative "may(?) -?ey can also precede such verbs, and in PA:GS it is sometimes used in place of plural inflection to imply plural. It is not really being used as a plural, of course, as can be seen from sets with and without both ?ey(?) and plural inflection. In one place (2.544, [box 2, card 544]) PA:GS glosses "ey-?ey alone as 'continuative plural (people working together on something, steadily, without cessation of activity)'; -?ey 'second person plural possessive' here provides the 'plural' feature.

In the PA:GS material there are several additional allomorphs of -?i 'plural': -?i, ?C1vC1, and C1/? - C1/0. Another plural affix, i-, is also found prefixed to a few roots beginning in /y/ or /w/ and preceded by the s- (s-) nominalizer, just as in UHk. Some examples follow.

\[\text{\textbackslash{ey}} \text{?ey 'man'-pl., q\text{\textbackslash{ey}} \text{?ey 'lots of men',}}\]
\[\text{?iy\text{\textbackslash{ey}}w 'guardian-spirit complex, power song'-pl.}\]
\[\text{?iy\text{\textbackslash{ey}}w 'old woman who gets astral messages'-pl.}\]
\[\text{?iy\text{\textbackslash{ey}}w 'sand bar'-pl.}\]
\[\text{?iy\text{\textbackslash{ey}}w 'note that all GS material quoted with /c/, as here, would be pronounced by other speakers with /s/-the /c/-is Halkomelemized by GS, as are /c, \theta, \Theta/ and /x/?, respectively /s, c, \Theta/ for other Nooksack speakers,}\]
\[\text{?iy\text{\textbackslash{ey}}z 'Fraser River canoe type'-pl.}\]
\[\text{?iy\text{\textbackslash{ey}}z 'canoe'.}\]
\[\text{Other y- and w-initial roots have other plurals. /-/ is not reduplicative but is mentioned in passing here. It is also confirmed in BE:GJ.}\]

\[\text{\textbackslash{ey}-\textbackslash{ey} '/-':}\]
\[\text{PA:GS q\text{\textbackslash{ey}}tatem 'blanket (mt. goat hair but used for cover)'-pl.}\]
\[\text{q\text{\textbackslash{ey}}tatem, k\text{\textbackslash{ey}}tolox 'root'-pl.}\]
\[\text{?i\text{\textbackslash{ey}}im\text{\textbackslash{ey}}w 'ring in dip-net'-pl.}\]
\[\text{?i\text{\textbackslash{ey}}im\text{\textbackslash{ey}}w 'ring in dip-net'.}\]
\[\text{\textbackslash{ey}}\text{\textbackslash{ey}}x 'rib'-pl.}\]
\[\text{\textbackslash{ey}}\text{\textbackslash{ey}}x 'rib'.}\]
\[\text{\textbackslash{ey}}\text{\textbackslash{ey}}x 'blanket of mt. goat and dog hair [ornate, ceremonial measure of wealth]'-pl.}\]
\[\text{\textbackslash{ey}}\text{\textbackslash{ey}}x 'language'-pl.}\n
\[\text{\textbackslash{ey}}\text{\textbackslash{ey}}x 'language'.}\n
\[\text{\textbackslash{ey}}\text{\textbackslash{ey}}x 'language'.}\n
There are some cases in PA:GS of /v/ realized as [\text{\textbackslash{ey}}] in environments where UHk would require /\text{\textbackslash{ey}}/ ([\text{\textbackslash{ey}}] between /x/ and /c/ for example). In Nooksack [\text{\textbackslash{ey}}], however, is an unstressed allophone of /\text{\textbackslash{ey}}/ and not of /v/.

\[\text{\textbackslash{ey}- - C1\text{- - C1-/-:}\]

\[\text{PA:GS k\text{\textbackslash{ey}}tatem 'owner (of power or physical property)'-pl.}\]
\[\text{\textbackslash{ey}}\text{\textbackslash{ey}}x 'a person}\]
who runs around with everyone (very loose)' (prob. 'to sleep around, be promiscuous' is more accurate gloss)—pl. k'ak'w'ix (k'ak'w'ix, however, appears as 'repeatedly loose (immoral)' in phrases for 'man who commits adultery' and 'woman who commits adultery'), i-sq' iq'elc 'half moon'—pl. kw'ak'w'iq'elc 'residents, co-residents'—pl. q'el'elcme'm 'nominalizer than a root consonant, but if reduplication is allowed). Addition of the reduplication type uncertain as 'plural'.

Phonologically a number of observations about Nooksack reduplication can be added at this point. Addition of reduplication often helps clarify the form of the root. For example, C₁ and C₂ of the root stand out in PF:GS k'ak'w'ila+ey 'shovel-nose canoes' and PF:GS seq'sq'eyq' 'shovel-nose canoes' and PF:GS seq'sq'eyq' 'white (plural)' if PF <C here is /m/, as it often is. These are the only examples so far, and most have phonological or morphological oddities, making the reduplication type uncertain as 'plural'.

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Stressed suffixes with unstressed root retain stress even with stressed reduplication (multiple primary stress is allowed). Some examples can be seen above. Also illustrated above is the fact that /aw/ and /ey/ formed from reduplication often sound like [o(w)] and [i(y)], respectively. They are often transcribed as [o] and [i] by PF and others. This is a feature in common with UHk as well.

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It is interesting to note a pair of words above with the same root and different reduplications: *kʷəɬəx* 'shallow' and *ʔəɬəx* 'low tide'. The former is over-pluralized with *C₁* in the plural; the latter is pluralized with *CIV₁*.

Several others in the sets above are also over-pluralized, usually with reduplication plus *-el/-el* infix. These are probably erroneous forms. Further research may turn up additional types of Nooksack reduplication, but new types must now be fairly rare.

pillar'--pl. ʔəxəliləc ['painted on the back'], sqʷəqʷəl 'speech'--pl. ʔəqʷəqʷəl; -R₅ + C₄C₂-: šəməkʷəl 'target for arrow'--pl. šəmən/-məm 'trumpet'.

-R₉ '(derivational)' + C₁ə-: ʔəɬəqʷ 'often'--pl. əɬəqʷ. 

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