A Fresh Look at Tillamook Inflectional Morphology[1]

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1.0 Introduction

Tillamook was a Coast Salish language spoken in an enclave among Oregon's Penutian and Athabaskan languages, isolated to the south of the Coast Salish continuum in the Pacific Northwest. Tillamook was one of the first Salish languages to die; perhaps only Pentlach can rival it for that dubious distinction. Edel's (1939) grammar of Tillamook also was one of the earliest for Salish languages, before much was known of their complexities and idiosyncracies. Published treatment on Tillamook otherwise has been limited to one article on its phonology (Thompson and Thompson 1966), with occasional references to Tillamook in comparative articles.[2] Tillamook deserves a fresh look, given the quantum leap in understanding Salish languages and important research on the language itself since Edel (1939).

The material for this article was taken from the field notes of Laurence C. Thompson and M. Terry Thompson, the product of their field work with some of the last Tillamook speakers in the 1960s.[3] The field situation was not ideal. Use of the language had long fallen from everyday use. Material had to be coaxed from the consultants' memory, often without success. That context explains certain holes in the paradigms and questions left unanswered. The material nonetheless greatly helps to unravel the mystery of this little studied Salish language, interesting for both its similarities to its congeners and its differences. This article treats only a slice of Tillamook, its inflectional morphology. The Thompsons' material and occasional reanalysis of Edel (1939)[4] allow a fresh look at the inflectional morphology, revealing Salishan attributes (especially Coast Salish) obscured in Edel (1939).

2.0 Phoneme inventory

The phoneme inventory presented in Thompson and Thompson (1966:314) requires some revision, given that aspiration turns out to be distinctive in Tillamook. Before vowels, although not elsewhere, aspirated stops contrast with unaspirated stops/affricates. An unaspirated stop series is added. A series of glottalized resonants (*n' l' y' w'*) also is added. The revised inventory below is consistent with Thompson and Thompson's (1985:144) later treatment of Tillamook phonology.

CONSONANTS

d				g	g^w	[ġ]	[ġ^w]	
		c	č					
t				k	k^w	q	q^w	ʔ
t'	x'	c'	č'	k'	k^w	q'	q^w	
	ɬ	s	š	x	x^w	χ	χ^w	h
n	l		y		w			
n'	l'		y'		w'			

VOWELS

	i	u
	ə	
	e	a

Tillamook's (limited) three-way distinction among the stops parallels that of its Athabaskan neighbors. It is unclear if voiced uvular stops *ġ* and *ġ^w* (IPA *G* and *G^w*, respectively) are phonemic or predictable allophones of *q'* and *q^w*, respectively, as a dissimilatory change in reduplicative affixation (dubbed a "Grassmann's law" for Salish in Thompson and Thompson (1985)).

3.0 Phonological changes

3.1 Synchronic changes

The salient phonological processes impacting morphological analysis ultimately involve stress assignment in the underlying form. Valences for stress (i.e., weak versus strong) and interaction of roots and suffixes concerning stress retention or loss, if any, have yet to be worked out. There is a

very strong tendency toward penultimate stress, however, with attendant vowel reduction and consonantal adjustments. Some very general rules will help to understand the morphological analysis below. Consonants in reduplicated affixes deaspirate and deglottalize, characterized as a Grassmann's law for Salish (Thompson and Thompson 1985); e.g., */t'áni* 'ear,' *dən·/t'áni* 'ears'; *dən·/ténə* 'parents.' Shibilants may palatalize neighboring sibilants (e.g., *s* > *š* /*š*__; *c* > *č*/ __*š*), but some morphemes do not so assimilate (e.g., *š-* desiderative before *s-* nominalizer). Geminate consonants may reduce to a single consonant, including geminates resulting from assimilation; e.g., *n'n* > *n'n'* > *n'*; *sš* > *šš* > *š*.[5] *n* is lost before *t* in suffix combinations. *t* coalesces with following *š* (> *č*), *s* (> *c*) and is absorbed into following *c* and *č*. *əy* may coalesce to *i*; *əw* may coalesce to *u*. *h* is deleted before a consonant (i.e. *h* > ∅/__C) in the underlying form, preceding vowel reduction but not after. g^w is unrounded to *g* before *i* (see example 87). The stative prefix *c-* is realized as *s-* before roots beginning with apical consonants (*l*, *ƛ'*, *ɬ*, *c*, *c'*, *č*, *č'*, *s*, *š*, *t*, and *t'*); cf. Edel (1939:17).

One other phonological rule is necessary to allow the pieces of the morphological puzzle to fit together and still follow the rule fixing penultimate stress. Certain vowel adjustments, such as *//V-ə//* > *V*, occur before stress is fixed on the penultimate vowel. Consider the following passive predicates, one with *//-ən-t//* basic transitive, the other with *//-stx^w//* causative[6]: *//* c/qeχi-ən-t-əw (ST/chase-DRV-TR-PAS) > c/qeχi-∅n-t-əw > c/qeχí-n-t-əw > c/qeχí-∅-t-əw *//* > *c/qeχí-t-əw* 'they chased it away'; *//* c/g^{w}ə?əš-stx^w-əw (ST/kill-CAU-PAS) > c/g^{w}ə?əš-sti-∅w > c/g^{w}ə?éš-sti-w *//* > *c/g^{w}ə?éš-ti-w* 'he killed it.'

3.2 Diachronic changes

A brief outline of diachronic changes in phonemes from Proto-Salish (PS) to Tillamook will clarify the relationship of certain Tillamook morphemes with their cognates in other Salish languages. Most of the comparative data in the outline is drawn from distantly related northern Interior Thompson River Salish (Th) and other Interior Salish (IS) languages (most removed), with secondary reference to Coast Salish (CS) cognates. The salient historical changes are:

(a) PS **m* > Ti *w*; e.g., Ti */wus*, */wis* (Edel 1939:24) 'four,' Th */mus* 'four.'

(b) PS **p*, **p'* > Ti *h* (> ∅ /__#); e.g., Ti *s/həlén* 'skunk,' Th *s-pə·/plánt* 'skunk'; Ti (*dá*) */hč'u* (ART) 'bobcat,' Ld (southern) */p'č'əb* (Hess 1976) (PS **m* > Ld *b*); Ti */hul-* 'tip over in boat,' Twana *p'əl?·/p'ələč* 'capsize' (Drachman 1969:220).

(c) PS **k*, **k'*> Ti *č*, *č'*; e.g., Ti */sitíč* 'year,' Th *s/?ístk* 'winter'; Ti */č'íyə* 'man's mother,' Columbian *s/k^{w}íy* 'man's mother' (Kinkade 1981a:77); Ti */č'is* 'bad,' Th */k'əs-* 'bad.'

(d) PS **x* > Ti *š*; e.g., Ti */šénš* 'rock,' Th */xénx* 'rock.'

(e) PS **w* > Ti *g^w* (> *g* / __*i*); e.g., Ti */šəg^{w}áɬ* 'road,' Th */xw'éɬ* 'road.'

(f) PS **u* > Ti *i* (in certain cases); e.g., Ti *s/wiɬéc* 'woman,' Th *s/múɬec* 'woman'; Ti */siw-* 'smell,' Th */sum-* 'smell.'

(g) PS **a* > Ti *e* (incomplete shift, apparently impeded in a rounding environment); e.g., PS **-ani?* 'ear,' Ti *-eni?* 'ear'; PS **-aksɬ* 'hand,' Ti *-ečí*.

4.0 Word formation

Tillamook has two types of words: full words and particles. Full words are predicative, particles are not. Morphemes within full words are lexical or grammatical. Lexical morphemes designate

entities, events, and concepts; they are mostly roots, the central components of predicatives. There are also numerous lexical suffixes (about fifty) attached to roots, which add lexical material.[7] Grammatical morphemes are particles or affixes, which designate or show relationships between the lexical morphemes.

To stems (e.g., root plus aspectual and/or lexical suffixes) may be added grammatical affixes, which include both derivational and inflectional elements. A variety of reduplicative affixes can be added to the root, to convey augmentative (e.g., $C_1VC_2\cdot$ or $C_2\cdot$), continuative ($C_1V\cdot$ or $C_1i\cdot$), diminutive (e.g., $C_1V(?)\cdot$ or $C_1u\cdot$), or out-of-control ($\cdot əC_2$) notions. Tillamook is a suffixing vis-à-vis prefixing language, but several prefixes (in addition to the reduplicative prefixes above) are worth mentioning: *c-* stative, *nə(š)-* localizer,[8] *s-* nominalizer, and *š-* desiderative. One common infix, actual *[?]*, indicates an activity is ongoing or incomplete. The following gives a general framework for word formation in Tillamook.

(a) prefixes (e.g., *s-* nominalizer, *c-* stative)
(b) root + aspect (e.g., actual *[?]*, out of control $\cdot əC_2$)
(c) lexical suffixes (e.g., *=ečí* 'hand,' *=awi* 'throat')
(d) middle (*-əw*) or transitive marking (various affixes)
(e) object suffixes (e.g., 1s.OBJ *-c* / *-wəš*, reciprocal *-əg^{w}əl*, or reflexive *-siɬ*)
(f) subject pronominals (e.g., *-i* 1s.SBJ)

The following exemplify that general pattern.

(1) *de* *nəš/təɬ=aw'í-st*
ART LOC/detach=throat-RFL
'He cleared his throat.'

(2) *də* *c-yə·/yələh=ačá?-ən*
ART ST-CNT·/turn=hand-DRV
'He is cheating on him.'

(3) *g^{w}ə* *k* *š/tk^w=ag^{w}ə(s)-ší-c-ə*
FUT ART LOC/put=side-IND-1s.OBJ-IMP.s
'You pay me!'

(4) *də* *c-ġəl·/q'el[·əl]s-án-i*
ART ST-AUG·/cook.pit[·O.C]-DRV-1s.SBJ
'I am baking them [clams] in an earth oven.'

That general framework can be expanded to allow, for example, the causative or relational to transitivize a middle, formation of compound stems, or even noun incorporation shown in example 5.

(5) *de* *nəš/t'č-eɬ/wiyec-án-i* Cf. *š/t'č-án-i*; */wiyéc*
ART LOC/shoot-LIG/belly-DRV-1s.SBJ LOC/shoot-DRV-1s.SBJ /belly
'I shot him in the belly.' 'I shot him'; 'belly'

5.0 Personal inflection

The pronominal system draws on elements from different parts of the grammatical system: subject suffixes, two sets of object suffixes, possessive affixes, independent pronominals, and conjunctive clitics. The system distinguishes three persons and two numbers. Strictly speaking, these items are not pronouns, but person markers.

5.1 Pronominal subjects and objects

Tillamook's pronominal system remains typically Salish, although simplified relative to other

Salish languages. Kinkade (1990:341) succinctly describes Salish pronominals: "Salishan languages are ... pronominal argument languages; a predicate (equivalent to an English verb) must include pronominal affixes to express its arguments." Kinkade (1990:343) explains: "Pronominal arguments in Salishan languages include first, second, and third persons, singular and plural. There are separate paradigms for subject, object, and possessive, sometimes depending on such things as causative/ noncausative, aspect, or dependency. Plural for third person is nonobligatory, although it is commonly used in some languages, especially when it is not redundant."

That describes Tillamook. Tillamook also has conjunctive pronominals used in dependent clauses and independent subject pronominals used for emphasis. One can begin with the intransitive subject pronominals. Newman's (1980:156) Proto-Salish reconstructions, which include an initial *k* element not used to form such pronominals in Tillamook, are given for comparison.[9]

INTRANSITIVE SUBJECT PRONOMINALS[10]

		Sg.			Pl.	
1st	//	-i	(*kən)		-yəɬ	(*kət)
2nd		-əš	(*kəx^{w})		-yaləh[11]	(*kəp)
3rd				-Ø-	(*Ø)	//

The above are 'conjugated' with the root */ʔiɬən* 'eat':[12] *daʔ cˈiɬán-i* 'I (male) am eating,' *daʔ cˈiɬán-š* 'you (male) are eating,' *daʔ cˈiɬən* 'he is eating, *ɬaʔ cˈiɬán-yəɬ* 'we are eating,' *ɬaʔ cˈiɬən-yálə* 'you folks are eating,' *ɬaʔ cˈiɬən* 'they are eating.'

Except for 3.SBJ, the transitive subject pronominals are identical to their intransitive counterparts. Tillamook has generalized those two sets of suffixes.

TRANSITIVE SUBJECT PRONOMINALS

		Sg.			Pl.	
1st	//	-i	(*-an)		-yəɬ	(*-at)
2nd		-əš	(*-ax^{w})		-yaləh	(*-alap)
3rd				Ø, [-əs]	(*-as)	//

Perhaps consistent with that generalization of suffix sets, the status of *//-əs//* as marking transitive 3.SBJ is tenuous (and bracketed accordingly). 3.SBJ is unmarked for intransitives. In simple transitive or causative predicatives (i.e., -3.OBJ-3.SBJ: Ø-Ø), 3.SBJ is not marked.

(6) *dé* *sˈtcˈ-ən*
ART ST/hit-DRV
'He hit him.'

(7) *ɬé* *sˈčes-(s)tx^{w}*
ART ST/care.for-CAU
'She took care of him.'

(8) *de* */tə́ɬ-nəx^{w}*
ART /find-NCT
'He found it.'

(9) *de* */xə̀lˈxelˈ-ə́wi-n*
ART /poison.power?-RLT-DRV
'He killed him with poison power.'

//-əs// 3.SBJ is found only sporadically in the Thompsons' material in predicates with object suffixes.

(10) *g^{w}ə* */qˈk^{w}-ə́s-wə-s*
FUT /bite-PUR-2s.OBJ-3.SBJ
'He will bite you.'

(11) *g^{w}ə* */tcˈ=us-ə́-c-s*
FUT /hit=face-DRV-2s.OBJ-3.SBJ
'He's going to hit you in the face.'

In addition, in two */yeh* 'cause' compounds, *//-əs//* 3.SBJ also surfaces: */ye/hucsənə́ʔ-əs* 'he cured them' (/cause/good-3.SBJ); */ye/skˈ^{w}u[ʔ]nág^{w}-əs* 'he made it pretty' (/cause/pretty[ATL]-3.SBJ); cf. */skˈ^{w}úɯx^{w}* 'pretty.' Edel (1939:28) similarly gives: */ye/húst-əs* 'he enlarged them' (/cause/large-3.SBJ). In Edel (1939:30-31, 39), *//-əs//* 3.SBJ is more regularly represented with both the transitive and causative object pronominals.

(12) *ci* */tkˈ^{w}=aniʔ-wíˈ-t-əs*
DEM /put=ear-RLT-TR-3.SBJ
'If they hear me, ...'

(13) *ci* *g^{w}əˈ/gˈ^{w}əh-əs-wə́š-əs*
DEM AUG?-/call-PUR-1s.OBJ-3.SBJ
'If they call me, ...'

At present, the inconsistent surfacing of *//-əs//* 3.SBJ in the Thompsons' material and Edel (1939), too, is not understood. The data in Edel (1939:39) may suggest that *//-əs//* 3.SBJ occurs only in dependent clauses. The sporadic presence of *//-əs//* 3.SBJ would then be especially interesting from a historical-comparative perspective, because Lushootseed has recast completely its cognate morpheme *//-as/-əs//*, such that it is entirely lacking in matrix clauses (Thom Hess, p.c.). Lushootseed transitive and intransitive predicates lack it; in one type of subordinate clause, however, it occurs with both transitive and intransitive predicate heads (Thom Hess, p.c.). A parallel development may have occurred or been in progress in Tillamook.

The more regular *//-əs//* 3.SBJ in Edel (1939) also might reflect dialectal conservatism; Edel (1939:3) comments that her "best informant .... 'talked funny,' that is spoke the Nehelim form of the dialect." Perhaps showing similar conservatism, Edel (1939:39) has examples of transitive 1s.SBJ as *//-ən//* (although elsewhere *//-i//*); Edel's *...ádzin* for 2s.OBJ-1s.SBJ probably reflects *...-ə́-cə-n < //-ən-t-cə-n//* -DRV-TR-2s.OBJ-1s.SBJ). In the Thompsons' material 1s.SBJ always is *//-i//* (although *g^{w}ən* 1s.CJV exists, reflecting the same PS subject pronominal **-an*). Edel's *//-ən//* 1s.SBJ more transparently reflects PS **-an*, whereas *//-i//* 1s.SBJ represents an innovation.

The sporadic surfacing of *//-əs//* 3.SBJ in the Thompsons' material may indicate that the morpheme was unproductive or becoming so. Conditioning based on aspectual differences, such as completive versus continuative as in Upper Chehalis (Kinkade 1964:32), does not work for Tillamook. If *//-əs//* 3.SBJ still was productive, perhaps it was obscured by phonological and/or morphophonemic processes (e.g., coalescence into a portmanteau morpheme or deletion). That may remain another unknowable from Tillamook. In any case, analogical interference from the intransitive paradigm (where 3.SBJ is unmarked) likely would have influenced a shift toward not marking transitive 3.SBJ.

There are two sets of object suffixes. One set is used with specializing suffixes preceding *//-t//* basic transitive: *//-ən//* directive, *//-əwi//* relational, *//-ši//* indirective, and *//-əs//* purposive; hence the term transitive set. Newman's (1980:156) suggested PS forms for the object pronominals also are given.[13]

TRANSITIVE OBJECT PRONOMINALS

		Sg.			Pl.	
1st	//	-c	(*-c)		-iwiɬ	(*-al)
2nd		-cə	(*-ci)		-iwiɬ	(*-ulm)
3rd				-Ø-	(*-Ø)	//

A second set is used with *//-əs//* purposive, *//-stx^{w}//* causative, *//-nəx^{w}//* non-control transitive, and compound stems created with the root */yeh* 'cause'; hence the term causative set.

CAUSATIVE OBJECT PRONOMINALS

		SG.			PL.	
1st	//	-wəš	(*-mx)		-wiɬ	(*-muɬ)
2nd		-wə[14]	(*-mi)		-wiɬ	(*-muɬ)
3rd				-Ø-	(*-Ø)	//

Tillamook //-iwiɬ// is transitive 1p.OBJ and 2p.OBJ in the Thompsons' material and Edel (1939:30-31). It reflects neither of Newman's suggested PS forms for transitive 1p.OBJ and 2p.OBJ, **-al* and **-ulm*, respectively. Instead, transitive 1p.OBJ and 2p.OBJ //-iwiɬ// was analogized from the causative set //-wiɬ//, PS **-muɬ* for both causative 1p.OBJ and 2p.OBJ.[15] Transitive 1p.OBJ and 2p.OBJ //-iwiɬ// contain an additional *i* element not found in the causative counterpart //-wiɬ//. That additional *i* element may reflect morphological reanalysis incident to the analogical extension between the sets of object pronominals. To understand that process requires some background on the historical development of the causative and non-control transitive suffixes in Tillamook, and their combination with the causative set of object pronominals.

According to Newman (1980:299), Tillamook causative *-stx*^{w} reflects PS **-stəw*. Kinkade (1981b:337) explains: "The final *w* of [Proto-Salish] **-stəw* was devoiced and fricativized to *x*^{w} in Sliammon, Sechelt, Pentlatch, Halkomelem, Northern Straits, and Lushootseed, resulting in *-stəx*^{w}, *-stx*^{w}, *-tx*^{w}, or *-sx*^{w}." Tillamook can be added to that list. Tillamook noncontrol *-nəx*^{w} reflects PS **-nəw*,[16] with parallel devoiced and fricativized final **w*. When //-stx^{w}// and //-nəx^{w}// are followed by the causative object pronominals or passive //-əw//, the respective forms are *sti-* and *ni-*.

(14) *g*^{w}*ə* *waɬ* */čag*^{w}*-u-sti-wâ-y*
FUT with /dance-RLT-CAU-2s.OBJ-1s.SBJ
'I will dance with you.'

(15) *de* *šlyəɬ=qs-ní-wš*
ART LOC/poke=point-NCT-1s.OBJ
'It poked into me.'

The *i* in transitive 1p.OBJ and 2p.OBJ //-iwiɬ// suggests a reanalysis from *-sti-*OBJ and *-ni-*OBJ to *-st-i*OBJ and *-n-i*OBJ. E.g., PS **-stəw-muɬ* > **-stu-muɬ* > **-sti-wiɬ* > Ti *-st-iwiɬ*; **-nəw-muɬ* > ... *-n-iwiɬ*.[17] Reanalyzed causative 1p.OBJ and 2p.OBJ //-iwiɬ// replaced their counterparts in the transitive set (which otherwise would reflect PS **-al* and **-ulm*, respectively).[18]

Morphological segmentation of *-sti*OBJ/*-ni*OBJ is troublesome, however. Analogical extension of //-iwiɬ// into the transitive set would suggest reanalysis for causative 1p.OBJ and 2p.OBJ. It seems odd that //-iwiɬ// could be borrowed into the transitive set unless //-iwiɬ// also had some psychological reality in the causative set. If //-iwiɬ// has that status in the causative set, then the *i* element, in turn, logically would be in the remaining members of the set.[19]

Other parts of the morphology suggest otherwise. When the causative set is used with //-əs// purposive alone, no *i* element is used. See example 121. When the causative and non-control are used with //-əw// passive, the forms are best analyzed as *-sti-w* (from //-sti-əw//) and *-ni-w* (from //-ni-əw//. See examples 118 and 119 below. It would be odd to reanalyze *-sti* and *-ni* with the causative object pronominals, but not do so with the passive. Moreover, there is an interesting, perhaps illuminating, example in Edel (1939:39), where the conjunctive pronominal *git* 1p.CJV is used

as the subject pronominal in a causative form */čc* 'reach, arrive' (cf. Thompson */kic* 'arrive'), with no causative object pronominals.

(16) *ʔə* *s/čc-í* *g(i)t*
when ST/reach-CAU 1p.CJV
'When I reach you.'

The underlying form of the predicative would be causative // s/čc-stx^{w}- // (NOM/arrive-CAU-), reduced to // s/čc-i- // after regular coalescence of *-s* with preceding *c* and deletion of *t* following *c*. The *i* element of causative //-sti-// still remains, with no following causative object suffix, showing the *i* element is part of the causative suffix itself. The present analysis opts for *-sti-*OBJ and *-ni-*OBJ, over *-st-i*OBJ and *-n-i*OBJ.

In the Thompsons' material and Edel (1939) a certain *-(i)ɬ* element occurs occasionally in forms with otherwise unmarked 3.OBJ. Edel (1939:30) lists *iɬyʌɬ* (= *-iɬ-yəɬ*) as a possible 3s.OBJ-1p.SBJ combination, as in Edel (1939:31) */ye/g*^{w}*at-iɬ-yəɬ* 'we know him' (cause/know-3.OBJ?-1p.SBJ).

(17) *g*^{w}*ə?* */yeh=s-íɬ-yəɬ*,...
FUT /cause=eye-?-1p.SBJ
'If we see him, ...

(18) de */yeh=s-íɬ-i*
ART /cause=eye-?-1s.SBJ
'I see him.'

(19) *ʔə* *č/čc-íɬ-əs*, ...
when to.LOC/reach-?-2s.SBJ
'If they reach him, ... Edel (1939:39)

(20) *ʔə* *č/čc-íɬ-əš*, ...
when to.LOC/reach-?-3.SBJ
'When you reach him, ... (Edel 1939:39)

(Edel writes the *ɬ* as voiced *l* in examples 19 and 20.) Whether the element is *-iɬ* or simply *-ɬ* is unclear, as an *i* would follow the stems in all of those examples (because they are causative or */yeh* 'cause' compound stems). The function of *-(i)ɬ* is not clear; the same predicatives above can occur without the *-(i)ɬ*; e.g., *de c/yeh=ís-i* 'I saw him.' The *-(i)ɬ* element may be related to a 'redirective' affix in Interior Salish. Cf. Reichard (1938:626) for Coeur d'Alene *-tuɬ* 'for, in reference to'; Kinkade (1980:34) for Columbian *-tuɬ* 'redirective'; Mattina (1982:427) for Okanagan *-uɬɬ* 'logical agent is in charge of logical patient.'

5.2 INDEPENDENT PRONOMINALS

Tillamook independent pronominals have full predicative force. They may refer to agents, patients, or possessors, providing them with a special emphasis.[20] Newman's (1977:304) suggested PS forms are added for comparison.

1s	*/ʔəncə́*	**ʔəncá*	1p	*/niwə́ɬ* (?)	**nímaɬ*
2s	*/ʔəngí?*	**nəwí*	2p	*g*^{w}*əl·/g*^{w}*ə́lə*	**wəláp*
3s	*/cənítɬ*	**cənítɬ*	3p	*cə(ʔ)n·/cə́nč* (?)[21]	---

Tillamook retains the original stress of PS, which explains why the forms do not show expected penultimate stress. In addition to retention of original stress, a conservative inclination concerning the proto-forms is apparent in the Tillamook reflexes, except for the **w* > *g*^{w} > *g/ __i* and loss of **p* > *h* > Ø. The independent pronominals may act as the predicative head of the sentence. They may emphasize agents, patients, or possessors.

(21) */ʔəncə́* *tə* */hucsəné-y* *ʔi* *dé* *s/x̌'ɬ* */cənítɬ*
/EMPH.1s ART /well-1s.SBJ but ART NOM/ill /EMPH.3
'I am well but he is ill.'

(22) */ʔəncə́* *gʷəʔ* */yəɬ-wí-n'-i*
/EMPH.1s FUT /next-RLT-DRV-1s.SBJ
'I am the one who is going to be next.'

(23) */ʔəncə́* *ɬə* *n-s/čicéš*
/EMPH.1s ART 1s.PSV-NOM/name
'It is my name.'

(24) */ʔəncə́* *gʷəʔ* */yəɬ·əɬ-ní-wš*
/EMPH.1s FUT /next·O.C-NCT-1s.OBJ
'He will be next to me.'

(25) *c-yə·/yeh=s-íwɬ* *gʷəl·/gʷə́lə*
ST-CNT?·/cause=eye-2p.OBJ EMPH.2p
'He is looking at you folks.'

(26) *cu* */nəʔ-ə-t-íwɬ* *gʷəl·/gʷə́lə*
ART.to /get-DRV-TR-2p.OBJ EMPH.2p
'He went to get you folks' (Based on Jacobs 1933:170).

Examples 25 and 26 illustrate how the EMPH.2p can be used to disambiguate its accompanying predicate from homophonous */nəʔ-ə-t-íwɬ* 'he went to get us' (/get-DRV-TR-1p.OBJ).

5.3 Possessive inflection

Possession is reflected by a set of affixes: prefixes for 1s.PSV and 2s.PSV, suffixes for the remaining persons.

		... stomach'	Newman (1980:156)
'my...	//n-//	*n/wiyéc*	PS **n-*
'your...	//is-//	*is/wiyéc*	PS **ʔən-*
'his/her...	//-əs//	*/wiyéc-s*	PS **-s*
'our...	//-yəɬ//	*/wiyéc-yəɬ*	PS **-iɬ*
'you folks'...	//-yaləh//	*/wiyec-yálə*	PS **-mp*, **-alap*
'their...'	//-əs//	*/wiyéc-s*	PS **-s*

3.PSV //-əs// is posited over //-s// on the basis of forms such as *ci /céš-s* 'her name' (/name-3.PSV), to account for penultimate stress assignment in the underlying form as //cés-əs// (with later reduction of 3.PSV //-əs// > *-s*). 1p.PSV //-yəɬ// is identical to 1p.SBJ //-yəɬ//; 2p.PSV and 2p.SBJ both are //-yaləh//. The possessive pronominals likely were the source for the subject pronominals, given Newman's (1980:156) reconstructions. That his reconstructions for 2p.PSV and 2p.SBJ (**-alap*) are identical, mostly reflecting Coast Salish languages, suggests analogical leveling already in Proto-Coast Salish.

5.4 Conjunctive pronominals

Tillamook has an additional set of pronominals used in dependent or conjunctive (i.e., closely related clauses). The conjunctive pronominals reflect PS subject pronominals attached to PS **w(ə)*, a subordinator (Thompson 1979:727; Newman 1980:163). The Tillamook reflexes below are compared parenthetically with the PS transitive subject pronominals from Newman (1980:156).[22]

Conjunctive Pronominal Enclitics

	Sg.		Pl.	
1st	*gʷən*	(**-an*)	*git*	(**-at*)
2nd	*gʷəš*	(**-axʷ*)	*gʷələlə*[23]	(**-alap*)
3rd			*gʷəs*	(**-as*)

The following clause contains conjunctive pronominals introduced by the subordinating particle *ci*.

(27) *ci* *gʷə* */ɬeɬ-əwí-st* *gʷən*, ...
if FUT /leave-RLT-RFL 1s.CJV
'If I go away, ...'

The counterpart independent clause is: *gʷəʔ /ɬeɬ-əwʼí-st-i*, 'I am going away' (FUT /leave-RLT-RFL-1s.SBJ). Conjunctive pronominals can act as subjects of transitives, as well as for intransitives (the reflexive shown above).

(28) *ci* *gʷə* */tkʷ=aniʔ-wí-t* *kʷ*[24], ...
if FUT /place=ear-RLT-TR 1s.CJV
'If I should hear it, ...'

Cf. */tkʷ=ani-wín-i* 'I heard it' (/place=ear-RLT-1s.SBJ).

(29) gʷə *š/ɬəh=ays-əwí-n* *gʷəš*, ...
FUT LOC/close=eye-RLT-DRV 2s.CJV
'If you go to sleep, ...

Cf. *de š/ɬəh=ays-əwí-n-š* 'you went to sleep' (ART LOC/close=eye-RLT-DRV-2s.SBJ).[25]

Edel (1939:39) shows additional instances of clitic 1p.CJV *git* as subject pronominal with transitive forms. The examples also show the enclitic nature of the conjunctive pronominals, as they become part of the preceding predicative for stress assignment. See also example 16 above.

6.0 Intransitive stems

Roots can form intransitive stems with a number of aspectual or voice affixes, to which intransitive pronominals are attached. The three salient intransitive affixes are exemplified below. Some roots are not extended by any affixation, with the intransitive subjects attached directly to them.

(30) *gʷəʔ* */ƛ'áq-š*
FUT /stop-2s.SBJ
'You are going to stop.'

(31) *də* */x̣áw'-i*
ART /heavy-1s.SBJ
'I (male) am heavy.'

6.1 Middle */-əw/*

Extension of roots (or roots with lexical suffixes) is a very common means to form intransitive stems. (In examples 34 and 35, the prefix *c-* is not *c-* stative, but a composite of *t-* 'to' and *s-* nominalizer.)

(32) *de* *c/qéh-əw*
ART ST/warm-MDL
'He gets warm (by fire).'

(33) *dé* *c/qʷx̣ʷ·ax̣ʷ-áw-i*
ART ST/sleep·O.C-MDL-1s.SBJ
'I fell asleep.' (Edel 1939:16)

(34) *ɬe* *c/suc'=ečəʔ-áw-i*
ART to.ST/wipe=hand-MDL-1s.SBJ
'I am wiping my hands.'

(35) *gʷə* *c/yaqʷ=us-áw-i*
FUT to.ST/wash=face-MDL-1s.SBJ
'I am washing my face.'

6.2 Developmental //-il//

Developmental //-il// may create intransitive stems, indicating a change in status. Consider these developmental stems: */č'aw-il-* 'get hurt,' */hag-il-* 'get hungry,' */qʷa[ʔ]ɬ-il-* 'fade black' (with actual *[ʔ]*), */yek'-il-*, 'get dark.' The suffix otherwise creates intransitive stems indicating motion, especially locomotion; e.g., */gʷəc-il-* 'swims,' *ne·/ne[ʔ]g-il-* 'run,' (with continuative CV· and actual *[ʔ]*), */teč-il-* 'come down [a hill or tree],' */c'q-il-* 'climb up on s.t.', */ʔus-il-* 'dive in,' */χeg-il-* 'catch a ride,' */λ'eχ-il-* 'go upriver.' Edel (1939:41) suggests that developmental stems can be transitivized with a suffix *-s* following *-il*, with consequent loss of *l*. Several parallel examples might occur in the Thompsons' material.

(36) *gʷə* *t* */χég-i-s*
FUT ART /catch.ride-DVL-PUR
'I will catch a ride [with someone].'

Cf. *gʷə* *də* */χeg-íl-i*
FUT ART /catch.ride-DVL-1s.SBJ
'I will catch a ride.'

(37) *də* *č/teč-í-s-i*
ART to.LOC/descend-DVL-PUR-1s.SBJ
'I climbed down [the ladder].'

Cf. *də* *s/téč-il*
ART ST/descend-DVL
'He went down.'

(38) *du* */yet'-í-s-wəš*
ART.to /provoke-DVL-PUR-1s.SBJ
'He came over to make trouble for me.'

Cf. *cu* */yet'-íl-i*
ART.to /provoke-DVL-1s.SBJ
'I went over and made trouble.'

(39) *s/ɬeq-í-s-i*
ST/sit-DVL-PUR-1s.SBJ
'I sit down beside him.'

Cf. *s-q·/ɬéq-il*
NOM-AUG·/sit-DVL
'Someone is sitting.'

Hess (1967:16) advances a similar rule for cognate Lushootseed //-il// 'inceptive'; Hess (1967:10) calls the *-s* suffix "purposive," which appears parallel with Tillamook *-s*. It remains unclear for Tillamook whether *-s* should be treated as a component of //-stxʷ// causative, with which it apparently occurs, or a separate transitive suffix. The present analysis treats the *-s* element as a separate suffix //-əs// purposive. Alternatively, the *-i* in examples 36-39 might represent an independent suffix, to which a reformulated //-l// developmental or //-əs// purposive could attach. The present analysis follows Hess's (1967:16) lead, however, in treating the morphophonemic process as //-il-s// > *-i-s*.

The developmental stem in example 39, */ɬéq-íl-* 'sit,' suggests that //-il// developmental is cognate with Thompson *-iyx* (from earlier **-ilx*; PS **l* > Th *y*), a suffix forming intransitive stems (termed 'autonomous'); cf. Thompson */ɬáq-ix* 'he sits down' (/sit-AUT). That correspondence (Coast Salish Tillamook with Interior Salish Thompson) suggests intransitive stem suffix PS **-ilx*.

6.3 Out of Control //·əC$_2$//

The reduplicative affix ·əC$_2$ indicates various nuances, referred to collectively here as out-of-control (O.C). ·əC$_2$ reduplication may reflect an accidental or spontaneous occurrence, natural phenomena, or a lack of control by an agent over an action or event. Carlson and Thompson (1982) discuss those general categories for ·əC$_2$ reduplication in Thompson and Spokane; they also briefly

touch on Edel's (1939:16) ·əC$_2$ data (her "inchoative"). Their categorization works for Tillamook. An inceptive nuance also may be important for Tillamook ·əC$_2$ (Kroeber 1988:165). No clear delineation between those categories is necessary, as the following stems indicate: */t'ən·án-* 'get burned accidentally,' */liy·i-* 'be lazy,' */saġʷ·əqʷ-* 'jump,' */yəl·əl-* 'be lost,' */ləš·əš-* 'get angry,' */q'el[·əl]s-* 'cook in earth pit,' */wəgʷ[·əgʷ]al-* 'alive,' */ʔu·w-*, 'sad,' */yəɬ·əɬ-* 'become next to,' */wan'·ən'-* 'be left behind,' */čəs·əs-* 'getting bad,' */yəs·əs-* 'get hurt.' The intransitive subject pronominals directly follow the ·əC$_2$ stem: *de /ləš·áš-i* 'I got angry' (ART /angry·O.C-1s.SBJ). The out-of-control forms can be transitivized variously. See examples 4, 24, 40, 49, 51, 55, 57, 76, 97, 104, and 119.

(40) *ɬə* *či* *č* *s/tiw'át* *gʷəʔ* */yəɬ·əɬ-n-ágʷəl*
ART ART ART NOM/person FUT /next·O.C-NCT-RCP
'That person is going to be next.'

7.0 The transitive system

7.1 Basic transitive //-ən-t//

//-ən-t// basic transitive marks predicates with only two arguments, an agent and a direct patient or goal. No perfect paradigm of Tillamook transitive inflection exists. A patchwork quilt of examples below, however, illustrates the combination of directive and basic transitive //-ən-t-//, with the transitive object and subject pronominals for various roots. The article *de* is provided only when the predicative does not take primary stress; the particle *gʷəʔ* also is supplied where appropriate.

Basic Transitive //-ən-t// Inflection

Obj-Sbj	//-Obj-Sub//	// /wi-ən-t-//	
3-1s	//-Ø-i//	*c/wí-n-i*	'I left him'
3-2s	//-Ø-əš//	*c/wí-n-š*	'you left him'
3-3	//Ø-Ø//	*dé c/wi-n*	'he left him'
RCP	//-əgʷəl//	*c/wi-t-ágʷəl*	'he left him'
3-1p	//Ø-yəɬ//	*c/wí-n-yəɬ*	'we left him'
3-2p	//-Ø-yálə//	*c/wi-n-yálə*	'you folks left him'
2s-1s	//-cə-i//	*c/wi-n-cá-y*	'I left you'
2s-3	//-cə-Ø//	*dé /wi-c*	'he left you'
2s-1p	//-cə-yəɬ//	*c/wí-n-c-yəɬ*	'we left you'
1s-2s	//-c-š//	*gʷəʔ /wí-č-š*	'you'll leave me'
1s-3	//-c-Ø//	*c-wá·/wi-c*	'they left me'
1s-2p	//-c-yaləh//	*c/wi-n-c-yálə*	'you folks left me'
2p-1s	//-iwiɬ-i//	*gʷəʔ /wi-t-iw'íɬ-i*	'I'll leave you folks'
2p-3	//-iwiɬ-Ø//	*c/wi-t-íwɬ*	'he left you folks'
2p-1p	//-iwiɬ-yəɬ//	*c/wi-t-iw'íɬ-yəɬ*	'we left you folks'
1p-2s	//-iwiɬ-š//	*gʷəʔ /wi-t-iwíɬ-š*	'you folks will leave us'
1p-3	//-iwiɬ-Ø//	*c/wi-t-íwɬ*	'he left us'
1p-2p	//-iwiɬ-yaləh//	*c/wi-t-iwiɬ-yálə*	'you folks left us'

//-ən-t// does not surface as *-n-t-* in the examples, only *-n* or *-t* does. Rules to derive surface *-t* are not yet certain; if *-t* is retained (coalesced into following segments or otherwise?), however, that retention conditions deletion of *n*. The same pattern holds for *//-əwi//* relational before *//-ən-t//* transitive. Those same suffix pronominal combinations apply for the indirective and relational. *//-ən//* directive, *//-ši//* indirective, and *//-əwi//* relational precede and specialize *//-t//* basic transitive. Stress assignment and the consequent surface forms after vocalic and consonantal adjustments are straightforward, except for *c/wí-n-c-yəɬ* 'we left you.' Strictly mechanical assignment of stress on the underlying penultimate vowel would yield **c/wi-n-cə́-yəɬ* (< *//* c/wi-ən-t-cə-yəɬ *//*); that does not occur. Compare *c/wi-n-cə́-y* 'I left you' < *//* c/wi-ən-cə́-i *//*. That apparent inconsistency reflects a morphophonemic process not yet understood.

7.2 Indirective *//-ši//*

//-ši// indirective is a specializing transitive suffix, preceding *//-t//* transitive. *//-ši//* indicates the predicative has three arguments, an agent and two patients for the predicate's action; hence the term ditransitive. It can identify benefactive and malefactive activities, or connote neither benefit nor harm.

(41) *gʷəʔ* */ye-s-niʔ·/naʔ-win-ší-c*[26] *i*
FUT /cause-NOM-AUGʔ·/stay-INS-IND-2s.OBJ QN
'Are they going to build a house for you?'

(42) *gʷu*[27] *(ʔə)* *nəš/ʔay-ší-t-yəɬ*
FUT (?) LOC/retaliate-IND-TR-1p.SBJ
'We are going to do it back to him.'

(43) *gʷəʔ* *yə·/yʾəh-ən-ší-t-i*
FUT CNTʔ·/work-FMV-IND-TR-1s.SBJ
'I will work for you.'

(44) *łe* *nəš/tu-ší-t-i*
ART LOC/believe-IND-TR-1s.SBJ
'I believe what you told me.'

(45) *də* *s-čəlʾ·/čəl-əš-c-í*
ART ST-AUG·/ahead-IND-2s.OBJ-1s.SBJ
'I got ahead of you.'

(46) *gʷə* */ʔayəh-š-t-íwɬ*
FUT /poison-IND-TR-1p.OBJ
'They would poison us.'

(47) *(de)* *waɬ* */huq-tən-ší-c*
(ART) with /cut-INS-IND-1s.OBJ
'He went after me with a knife.' Edel (1939:43)

(48) *š/tkʷ=agʷə(s)-ší-t-ə*
LOC/put-side-IND-TR-IMP.s
'Pay him!'

Tillamook *//-ši//* reflects PS **-xi* indirective (PS **x* > Ti š); see Carlson (1980), Thompson and Thompson (1980), and Kinkade (1980).

There is another suffix, *//-əs//* purposive, in the Thompsons' material and in Edel (1939:33), which seemingly provides similar ditransitive marking. Edel (1939:33), in fact, combined *//-əs//* with *//-ši//* indirective. *//-əs//* very likely is unrelated to *//-ši//*, however, as there is no clear reason for depalatalization.

(49) *də* *s/ləš·əš-əw-əs-c-í*
ART ST/angry·O.C-RLT-PUR-2s.OBJ-1s.SBJ
'He made me angry at you.' (Edel 1939:28)

(50) */ye-s/xʷsel'-s-cə́-y*[28]
/cause-NOM/present-PUR-2s.OBJ-1s.SBJ
'I made you a present.'

(51) */tʾən·ən-s-ə́-t-i*
/burn·O.C-PUR-DRV?-TR-1s.SBJ
'I burned it for him.'

This analysis treats the apparent "copycat indirective" *-s* as *//-əs//* purposive, although there are problems with that approach. First, *//-əs//* purposive normally takes the causative object pronominals; the predicates above all show transitive object pronominals, even the */yeh* compounds (which usually take causative object pronominals). That can be explained, however, by accounting for the transitive set as being conditioned by *//-t//* transitive, instead of *//-əs//*, which precedes *//-t-//*. Second, *//-əs//* purposive otherwise does not always mark predicates as ditransitive. That difference can be explained, however, by allowing *//-əs//* purposive a broader semantic range and grammatical function. *//-əs//* purposive is discussed further below.

7.3 Relational *//-əwi//*

The relational is analyzed as *//-əwi//* instead of *//-əwin//* on the basis of the following forms.[29]

(52) *gʷə* */həʔəy-əwʾí-s-t-i*
FUT /over.there-RLT-PUR-TR-1s.SBJ
'I will move it [chair] a little ways away.'

(53) *gʷəš* */həwəčəʔ-əwi-s-w-í*
ongoing /tire-RLT-PUR-2s.OBJ-1s.SBJ
'I am tired of you.'[30]

In examples 52 and 53, the relational precedes *//-əs//* purposive, showing no final *n* without any phonological reason for that absence. Instances of the relational occurring with a following *n* are analyzed as the combination of *//-əwi//* relational and *//-ən//* directive; i.e., *//-əwi-ən//* (RLT-DRV). That combination then surfaces as *-əwi-n* or simply *-əwi-∅*, depending on morphophonemic conditioning before *//-t//* transitive.

//-əwi// relational is a very common specializing transitivizer, preceding *//-t//* transitive. The relational has various functions. It indicates the predicate has essentially two arguments, an agent and a direct patient, but it also indicates that the action is related to a third object, instrument, or goal. Relational transitives tend to be more abstract than *//-ən-t//* transitives. Perhaps the relational's original function was to transitivize activities not normally able to be transitivized; e.g., sing + relational = 'sing for someone'; jump + relational = 'jump over something'; poison power + relational = 'kill with poison power' (see example 9). Vestiges of that original use still are evident.

(54) *də* *s/ʔisleš-əwʾí-t-əw*
ART NOM/sing-RLT-TR-PAS
'Someone is singing for him.'

(55) *de* *(s)/səgʷ·əqʷ-əwí-n-i*
ART (ST)/jump·O.C-RLT-DRV-1s.SBJ
'I jumped over it.' Edel (1939:21)

(56) *de* *c/ʔaχəl-əwí-n-i* *ʔəy* *nə* *s/ʔaʔûɬəw*
ART ST/walk-RLT-DRV-1s.SBJ here at NOM/beach
'I'm walking along the beach.'[31]

Sometimes that function is not as clear, and it functions as a more general transitivizer.

(57) *də* */ləš·əš-əwi-c-í*
ART /angry·O.C-RLT-2s.OBJ-1s.SBJ
'I am angry at you.'

(58) */qeš qe n/x̣ʷay'əš-əw'í-n-i k s/qéxe?*
/NEG UNR LOC/afraid-RLT-DRV-1s.SBJ ART NOM/dog
'I am not afraid of dogs.'[32]

(59) *łe s/tkʷ-ani?-wí-c-i*[33]
ART ST/put-ear-RLT-2s.OBJ-1s.SBJ
'I hear you.'

The relational often functions as causative transitivizer (discussed in Edel 1939:32).

(60) *de c/wax̣ʷən-áwi-n* Cf. *de c/wáx̣ʷən[']*
ART ST/cry-RLT-DRV ART ST/cry[ATL]
'He made him cry.' 'He is crying.'

(61) *de c/wəgʷ[·əgʷ]al-áwi-n* Cf. *łe c/wəgʷ[·əgʷ]ál-i*
ART ST/live[·O.C]-RLT-DRV ART ST/live[·O.C]-1s.SBJ
'He rescued him.' 'I am alive.'

(62) *gʷə? /yuq-áwi-n* Cf. *gʷə? /yúq*
FUT /die-RLT-DRV FUT /die
'He will kill him.' 'He will die.'

(63) *de /liləh-áwi-n* Cf. *de /lílə*
ART /laugh-RLT-DRV ART /laugh
'Someone made him laugh.' 'He laughed.'

Consider also: *gʷə nəš/gʷəl-əwí-n-i* 'I will make it hot' (*łə c/gʷəl-áw-i* 'I am warm' ART ST/warm-MDL-1s.SBJ); *gʷə /?iłən-(ə)wí-n-i* 'I will feed it' (*/?iłən-* 'eat') (based on Edel 1939:17).

The development of the causative function for the relational is perhaps a natural logico-semantic extension of its general function of indicating that the agent acts upon the patient in relation to something else: the agent does X in relation to Y. In causative predicatives, the agent is causing X to do Y. That development also may indicate the loss of a truly causative function by Tillamook's historical causative //-stxʷ// (assuming it ever had that function in Tillamook). Compare the following relational and causative examples.

(64) *gʷə ?u·/?util'-əw'í-n-i*
FUT CNT?·/bathe-RLT-DRV-1s.SBJ
'I'm going to give him a bath.'

(65) *ca wał ?u·/?utíl'-stxʷ-i*
ART with CNT?·/bathe-CAU-1s.SBJ
'I went swimming to take a bath with him.'

The relational can transitivize a middle stem.

(66) *de s/łiw'-alč-əw-áwi-n*
ART ST/spoon-round.object-MDL-RLT-DRV
'He feeds him with a spoon.'

Some final examples might show that the relational also can redirect a reciprocal to another patient or retransitivize a reflexive.

(67) *gʷə? də š/?əha?-t-əgʷál-wi-n* Cf. *tíye? de c/?əha?-t-ágʷəl*
FUT ART LOC/fight-TR-RCP-RLT-DRV always ART ST/fights-TR-RCP
'He is going to fight with him.' 'He fights all the time.'

(68) *də s-tə/yət-ə-cít-wi-n* Cf. *də c/yət-á-st*
ART ST-to/stand-DRV-RFL-RLT-DRV ART ST/stand-DRV-RFL
'He is standing next to someone.' 'She stood up.'[34]

(69) *de c/qegi-st-áwi-n* Cf. *de c/qegí-st*
ART ST/return-RFL-RLT-DRV ART ST/return-RFL
'Someone brought something back.' 'He returned'

The final suffixes in examples 67 and 68 may be the nearly homophonous //-win// instrumental. There is no clear phonological reason why //-əwi-n// (RLT-DRV) would surface as *-wi-n*, instead of *-áwi-n* as in example 69.

7.4 Reflexive //-sit//

//-sit// reflexive marks a predicate with a single participant, which acts as both agent and patient. The reflexive follows //-ən-t// basic transitive as //-ən-t-sit//, which shows two surface forms, *-ə-cít* or *-á-st*.[35]

(70) *də s/t'ən-á-st*
ART ST/burn-DRV-RFL
'He burned himself.'

(71) *łe s/t'ən-ə-cít-yał*
ART ST/burn-DRV-RFL-1p.SBJ
'We burned ourselves.'

Different penultimate stress conditions the surface forms *-ə-st* or *-ə-cít*. Underlying //-ən// directive is posited to account for *ə* before the reflexive allomorphs *-st* and *-cit*. Compare the basic transitive for the same root */t'ən* 'burn': *(de) s/t'ən-án-i* 'I burned it' (ART ST/burn-DRV-1s.SBJ). The underlying form of that predicative would be //s/t'ən-án-t-i//. Tillamook //-sit// reflects PS **-sut*, given Thompson and Spokane //-sut// reflexive, with other such cognates elsewhere in Salish.

7.5 Purposive //-əs//

Originally //-əs// purposive was treated as an allomorph of //-stxʷ// causative. That was done largely because //-əs// occurs with the causative suffixes, as does //-stxʷ// causative. Conditioning for *-əs* and *-s* versus *-sti/-ti* as allomorphs of //-stxʷ// was not clear. The allomorphic shape *-(ə)s* from //-stxʷ// was not susceptible to any clear or cogent morphophonemic conditioning. Moreover, when the causative object pronominals follow //-əs// purposive, they do not show any preceding *i* element, as when //-stxʷ// causative precedes them. //-stxʷ// causative then was broken into two components, //-əs// purposive and //-txʷ// causative, assuming that they could combine as *-s-txʷ*. That analysis also was problematic. For assignment of penultimate stress in the underlying form, //-stxʷ// does not have any vowel; e.g., *c/šə?áy-stxʷ-i* 'I scolded him' (ST/scold-CAU-1s.SBJ). The *ə* in //-əs// purposive, however, does have a vowel that affects or takes assignment of penultimate stress. The //-əs// + //-txʷ// analysis accordingly was abandoned. //-stxʷ// is treated as an independent morpheme. Diachronically, the *s* element in //-stxʷ// may reflect the same *s* element in //-əs//. Further research may provide a more elegant alternative.

(72) *de c/q'kʷ-ás-wəš*
ART ST/bite-PUR-1s.OBJ
'He bit me.'

(73) *gʷə? c/q'kʷ-ás-i*
FUT ST/bite-PUR-1s.SBJ
'I am going to bite it.'

(74) *de* *c/ɣʷq̓ʷ-ás-wəš*
ART ST/push-PUR-1s.OBJ
'He pushed me.'

(75) *de* *c/ɣʷq̓ʷ-ás-wəš*
ART ST/scratch-PUR-1s.OBJ
'It [the cat] scratched me.'

(76) *de* *s/ləš·əš(-s)-wáš-š*
ART ST/angry·O.C(-PUR)-1s.OBJ-2s.SBJ
'Are you angry at me?'

(77) *ci* *gʷu* *gʷə·/gʷəh-əs-wíɬ-š, ...*
if FUT CNT?·/call-PUR-1p.OBJ-2s.SBJ
'If you call us, ...

(78) *ci* *gʷu* */gʷəh-ás-i*
if FUT /call-PUR-1s.SBJ
'I am going to call him.' (Edel 1939:39)

(79) *c/ɣil'-ás-yəɬ*
ST/hurt-PUR-1p.SBJ
'We hurt him.'

(80) */yeɬcəgʷaš-ás-wəs*
/cause/wife-PUR-1s.OBJ
'He married me.'

(81) *gʷə* */gʷələɣ-əs-wíɬ-yəɬ*
FUT /speak-PUR-2p.OBJ-1p.SBJ
'We will speak with you folks.'

Examples 36-39 above also show *//-əs//* purposive transitivizing developmental stems. If *//-əs//* is followed by *//-t//* transitive, the transitive object pronominals are used (as also exemplified above).

(82) *gʷə* */səʔán-s-c-i*
FUT /whip-PUR-2s.OBJ-1s.SBJ
'I will whip you.'

(83) *gʷə* */ʔəhán-s-c-i*
FUT /make-PUR-2s.OBJ-1s.SBJ
'I will make it for you.'

In examples 82 and 83, it is not clear what the underlying suffix configuration is; it probably is *//-əs-t-cə-i//* (-PUR-TR-2s.OBJ-1s.SBJ), without *//-ən//* directive before *//-t//* transitive. It is unclear, however, whether that configuration would accord with example 51, */t'ən·ən-s-á-t-i* 'I burned it for him,' which apparently shows *//-ən//* directive before *//-t-//* transitive: *//-əs-ən-t-//* -PUR-DRV-TR. (See also example in footnote 29.) Edel (1939:33) similarly shows that second suffix combination *-s-á-t* (written *-sɛ́t*).

7.6 Causative *//-stxʷ//*

The term causative is somewhat of a misnomer for Tillamook *//-stxʷ//*, vis-à-vis other Salish languages (e.g., Lushootseed); *//-stxʷ//* rarely (if ever?) indicates causation, even in an oblique manner. Instead, *//-stxʷ//* transitivizes a stem without any causative nuance. In Proto-Salish, the causative may have indicated a predicative had two arguments, an agent and a patient, referring to a third object or goal toward which the activity was directed. In Tillamook, *//-stxʷ//* acts as a direct transitive, indicating an agent and direct patient. *//-stxʷ//* has two allomorphs, *-stxʷ* and *-sti*. The initial *s* of those allomorphs is obscured when the preceding stem ends with *s*, *š*, *c*, or *č* (and perhaps *ɬ*). In word final position or before 3.OBJ *//-Ø//* (plus subject affixes), the *-stxʷ* allomorph is used. Before the other object suffixes or *//-əw//* passive, the *-sti* allomorph is used.

(84) *de* *c/šəʔáy-stxʷ-i*
ART ST/scold-CAU-1s.SBJ
'I scolded him.'

(85) *gʷə* */yiʔíɬ-txʷ-i*
FUT /stop-CAU-1s.SBJ
'I quit doing it.'

(86) *gʷuʔ* *waɬ* */níš-(s)txʷ-i*
FUT with /return.home-CAU-1s.SBJ
'I am coming with it.'

(87) *de* *š-s-gi·/gʷəʔəš-(s)tí-wš*[36]
ART DSD-NOM-AUG?·/kill-CAU-1s.OBJ
'They want to kill me.' (Edel 1939:18)

(88) *gʷə* */c'əwáʔ-stxʷ-i*[37]
FUT /nurse-CAU-1s.SBJ
'I am going to nurse it [baby].'

The causative can transitivize relational stems. See also example 14.

(89) *ɬe* *c/xʷáy'-u-stxʷ*
ART ST/run.away-RLT-CAU
'She ran away with it.'

The following paradigm for the */yeh* compound stem */yeh=is* 'see' [*lit.* /cause=eye] illustrates the causative object pronominals and subject pronominals.[38]

Causative Inflection

Obj-Sbj	Obj-Sub	// /yeh=is-//	X 'see' Y
3-1s	*//-Ø-i//*	*c/yəh=ís-i*	'I see him'
3-2s	*//-Ø-əš//*	*c/yeh=ís-š*	'you saw him'
3-3	*//-Ø-Ø//*	*c/yáh=s*	'they left him'
RCP	*//-Ø-i-gʷəl//*	*c-yə·/yeh=s-í-gʷəl*	'he is looking at her'
3-1p	*//-Ø-yəɬ//*	*c/yeh=ís-yəɬ*	'we saw him'
3-2p	*//-Ø-yaləh/*	*c/yeh=is-yál'ə*	'you saw him'
2s-1s	*//-i-wə-i//*	*c/yeh=s-i-w'ə́-y*	'I saw you'
2s-3	*//-i-wə-s//*	*c/yeh=s-í-w'-s*	'he saw you'
2s-1p	*//-i-wə-yəɬ//*	*c/yeh=s-í-w'ə́-y'əɬ*	'we saw you'
1s-2s	*//-i-wəš-š//*	*c/yeh=s-i-w'áš-š*	'you saw me'
1s-3	*//-i-wəš-Ø//*	*c/yeh=s-í-wš*	'he saw me'
1s-2p	*//-i-wəš-yálə//*	*c/yeh=s-i-w'əš-yál'ə*	'you saw me'
2p-1s	*//-i-iwiɬ-i//*	*c/yeh=s-iw'íɬ-i*	'I saw you'
2p-3	*//-i-iwiɬ-Ø//*	*c/yeh=s-íw'ɬ*	'he saw you'
2p-1p	*//-i-iwiɬ-yəɬ//*	*c-yə·/yeh=s-iw'íɬ-yəɬ*	'we're looking at you'
1p-2s	*//-i-iwiɬ-š//*	*c/yeh=s-iw'íɬ-š*	'you saw us'
1p-3	*//-i-iwiɬ-Ø//*	*c/yeh=s-íwɬ*	'he saw us'
1p-2p	*//-i-iwiɬ-yaləh//*	*c/yəh=s-iwiɬ-yálə*	'you saw us' (extrapolated)

Realization of the morphemes is obscured somewhat by occasional intrusion of the actual infix *[ʔ]* into the object suffixes, addition of the continuative $C_1V\cdot$ prefix, and a suffixed *i* element used with */yeh* compounds (discussed below). *[ʔ]* actual glottalizes neighboring resonants; e.g., *[ʔ]w > w'*, *[ʔ]y > y'*, and *[ʔ]l > l'*. In the $C_1V\cdot$ reduplication, *// ye·/yeh=is-// > yə·/yeh=(i)s-*, shows reduction of unstressed *e* to *ə*.

The causative ultimately may be susceptible to further decomposition as *//-st-xʷ//*, with allomorph *-st-i* before the object pronominals and *//-əw//* passive. A final element *i* surfaces in */yeh* compounds before the causative object pronominals, where the purposive and causative affixes are absent. The */yeh* root apparently takes the place of the transitivizing affix *//-st//*, but the suffixed *-i* element still precedes the causative object pronominals.

(90) */ye[ʔ]/gʷat-i-w'ə́-y*
/cause[ATL]/know-?-2s.OBJ-1s.SBJ
'I know you.'

(91) */ye[ʔ]/gʷat-i-w'ə́š-š*
/cause[ATL]/know-?-1s.OBJ-2s.SBJ
'You know me.'

(92) */ye[ʔ]/gʷat-í-gʷəl*
/cause[ATL]/know-?-RCP
'He knows him.'

(93) de */ye[ʔ]/gʷat-í-w'-i*
ART /cause[ATL]/know-?-PAS-1s.SBJ
'I am learning.'

Another example with a */yeh* compound stem shows a conjunctive subject pronominal preceded by the *i* element and no object pronominal.

(94) *łə gʷəʔ/yéh=s-i gʷəš, ...*
ART FUT/cause=eye-? 2s.CJV
If she sees him, ...

Examples 90-94 (and examples in the */yeh=is* paradigm above) support the analysis of the *-i* element as a separate morpheme *//-i//* as part of the combination *-st-i*. Such an *//-i//* morpheme may have interesting implications for Proto-Salish. *//-i//* would reflect PS **-əw*, as part of suggested PS **-stəw* causative. PS **-stəw* would comprise elements **-s-t-əw*, perhaps PUR-TR-?. The same **-əw* may be a component in PS **-nəw* noncontrol, as **-n-əw*, perhaps DRV-?.

7.7 Non-control transitive */-nəxʷ/*

//-nəxʷ// indicates lessened control over an action by the agent. *//-nəxʷ//* takes the causative set of pronominal objects. *//-nəxʷ//* has several surface forms, *-nəxʷ*, *-ni*, and *-xʷ* (roughly parallel to the allomorphs for *//-stxʷ//* causative). Word final or before *//-Ø//* 3.OBJ (plus subject affixes) the allomorph is *-nəxʷ* or *-xʷ*. Before the other object suffixes or the passive the form is *-ni*. *-nəxʷ* and *-ni* ultimately may be analyzable as *-n-əxʷ* and *-n-i*, respectively, as for the causative).

(95) *de c/wəhaɬ-náxʷ-i*
ART ST/lose-NCT-1s.SBJ
'I lost him.'

(96) *łə c/yəna?-náxʷ-i*
ART ST/worse-NCT-1s.SBJ
'I'm feeling worse.'

(97) *nəš/ʔu·w-əní-wš*
LOC/sad·O.C-NCT-1s.OBJ
'I'm sad.' ['It saddens me.']

(98) *nəš/t'ilәwaɬ-ní-wš*
LOC/proud-NCT-1s.OBJ
'It makes me proud.'

(99) *qe gʷə də š/təčiʔ-ní-wɬ nigʷə*
UNR FUT ART LOC/fall-NCT-1p.OBJ maybe
'It might fall on us.'

//-nəxʷ// also may indicate success at an activity only after some effort.

(100) *łe c/ʔəhaʔ-náxʷ-i*
ART ST/pursue-NCT-1s.SBJ
'I finally caught up with her.'

(101) *gʷə /han-(n)i-wíɬ-i*
FUT /catch-NCT-2p.OBJ-1s.SBJ
'I will catch up with you folks.'

7.8 Reciprocal */-əgʷəl/*

//-əgʷəl// reciprocal indicates two arguments, participants often acting as both a patient and an agent in the activity indicated by the stem. It primarily has two forms, basic transitive *//-t-əgʷəl//*, noncontrol *//-n-əgʷəl//*, but it also can occur following *//-əs//* purposive. The non-control reciprocal likely reflects earlier **-nəw* noncontrol plus **-wəl* reciprocal (< PS **-awalxʷ*; Kinkade 1989:30),

which developed as **-nəw-wəl* > **-nəwəl* > *-nəgʷəl* (PS **w* > Ti gʷ). Cf. Saanich *-nəwəl* 'non-control reciprocal' (Montler 1986:183). That historical development would explain why Tillamook noncontrol reciprocal is *-nəgʷəl*, not *-nugʷəl* (with other object pronominals, the allomorph of *//-nəxʷ//* noncontrol is *-nu*). The noncontrol reciprocal accordingly might better be treated as a unit *-nəgʷəl* (-NCT.RCP) instead of *-n-əgʷəl* (-NCT-RCP); the latter analysis is used, perhaps somewhat artificially, to show parallelism with the basic transitive reciprocal *-t-əgʷəl* (-TR-RCP). No examples of *//-əgʷəl//* reciprocal have been recorded with *//-stxʷ//* causative.

(102) *nə(š)-šə·/šəl'-wi-t-ágʷəl*
LOC-CNT?·/dislike-RLT-TR-RCP
'They hate each other.'

(103) *s-də·/th-aʔ-t-ágʷəl*
ST-AUG?·/stab-FMV?-TR-RCP
'They stab each other.'

(104) *s/xis·əs-əwi-t-əgʷál-yəɬ*
NOM/like·O.C.-RLT-TR-RCP-1p.PSV
'We got to be friends.'

In other cases, true reciprocality is obscure or not evident. Sometimes *//-əgʷəl//* reciprocal indicates a reciprocal action by one participant in response to the other's act.

(105) *de s/tə-t-ágʷəl*
ART ST/stab-TR-RCP
'He stabbed him back.'

(106) *gʷə k š/tkʷ=agʷə(s)-š-t-ágʷəl*
FUT ART LOC/put=side-IND-TR-RCP
He is going to pay him back.'

(107) *s/teʔqiy-əʔ-n-ágʷəl*
ST/help-FMV?-NCT-RCP
'They helped him in return.'

Still other examples where none of those functions is clear may reflect instead homophonous suffix *//-əgʷəl//* topical object, but only context could make that clear.

(108) *de c/wi-t-ágʷəl*
ART ST/leave-TR-RCP
'He left him.'

(109) *de š/yəɬ=qs-n-ágʷəl*
ART LOC/poke=point-NCT-RCP
'He got poked [with a stick].'

(110) *də š/təčiʔ-n-ágʷəl*
ART LOC/fall-NCT-RCP
'It fell on him.'

Cf. *gʷə /təčiʔ-ní-wš*
FUT /fall-NCT-1.OBJ
'It will fall on me.'

Alternatively, if those examples are not topical objects, perhaps *//-əgʷəl//* reciprocal suffix implies the object is 'X as opposed to Y'; i.e., a redirecting of reference.

(111) *gʷə də /x̌eg-í-s-gʷəl*
FUT ART /catch.ride-DVL-PUR-RCP
'I'll catch a ride with s.o. [else].'

(112) *c/iɬən-əwi-t-ágʷəl*
ST/eat-RLT-TR-RCP
'Someone is feeding s.o. [else].'

(113) *də n/x̌eʔ-n-ágʷəl dé s/x̌'ɬ-š*
ART LOC/think-NCT-RCP ART ST/sick-2s.SBJ
'He thinks you are sick.'

The reciprocal also occurs with */yeh* compound stems. The compound set */yeh=is-* 'see' takes the causative pronominals (as set out above), as does the compound stem */ye/gʷat-* 'know.'

(114) *cu /yəh=s-í-gʷəl*
ART /cause=eye-?-RCP
'He came to see him.'

(115) *c/ye/gʷat-í-gʷəl*
ST/cause/know-?-RCP
'He knows him.'

The suffixed *i* element in the */yeh* compounds in examples 114 and 115 was discussed above.

7.9 Passive //-əw//

Tillamook allows a patient to be topicalized with //-əw// passive, attached to the transitive, causative, or non-control stems. //-əw// is attached to transitive stems as //-t-əw//. When passive //-əw// is attached to causative or non-control transitive stems, phonological reduction leads to *-ti-w* (from //-ti-əw//) and *-ni-w* (from //-ni-əw//; //iə// > *i*). With //-əs// purposive, passive is combined as *-s-əw*. With */yeh* compound stems the passive[39] is *-i-w*, supporting analysis of a separate *i* element as part of the causative, *-st-i-əw*, and non-control transitive, *-n-i-əw*, as discussed above.

(116) */šəlel-wí-t-əw*
/float-RLT-TR-PAS
'It [raft] is floating downriver.'

(117) *šəl·/šil-əwí-t-əw*
AUG·/dislike-RLT-TR-PAS
'Nobody likes it [dog].'

(118) *də* *ná* *c/gʷə?áš-(s)ti-w* [40]
ART past? ST/beat-CAU-PAS
'He's been beaten up.'

(119) *c/wəh·áh-ni-w*
ST/miss·O.C-NCT-PAS
'They missed him.' (Edel 1939:33)

(120) *c-gʷə·/gʷəh-ás-iw*
ST-AUG?·/call-CAU-PAS
They invited *X*.' (based on Edel 1939:33)

The *i* vowel in the passive in example 120 appears anomalous; only *-əw* would be expected (cf. example 121). It probably reflects Edel's writing *i* for a high allophone of //ə// following //s//, which conditioned allophonic realization is discussed in Thompson and Thompson (1966). Two further examples, one from Edel (1939:36) and one from the Thompsons' material, suggest that passives can take the intransitive subject pronominals.

(121) *gʷu* */yet'-i-s-əw-yálə*
FUT /attack-DVL-PUR-PAS-2p.SBJ
'You will be attacked.'

Cf. *du* */yet'-í-s-wəš*
ART /attack-PUR-CAU-1s.OBJ
'He came over to attack me.'

(122) *č/səɬ-əní-w-i*
to.LOC/spill-NCT-PAS-1s.SBJ
'It is spilled on me.'

Cf. *gʷə* */st-án-i*
FUT /spill-DRV-1s.SBJ
'I will spill it.'

See also example 93 above. If the analysis of //-əw// passive plus intransitive subject pronominal is correct, that construction would parallel passive formations in other Coast Salish languages, such as Lushootseed (Hess 1976), Saanich (Montler 1986:179-181), and Klallam; i.e., with cognates of Tillamook //-əw// passive and those languages' intransitive subject pronominals.[41]

8.0 Imperative /-ə, -gʷə/

Imperatives are formed the same way for intransitives and transitives. The singular is formed by adding *-ə* as the final suffix; the imperative plural is formed similarly by adding *-gʷə*. The plural imperative *-gʷə* probably reflects elements *-gʷ-ə*. Cf. Th *-e* IMP.s, *-uz-e* < //-wəz-e// IMP.p.[42]

(123) *de* *nəš/tkʷ=ays-án-ə*
ART LOC/put=fire-DRV-IMP.s
'Throw it into the fire!'

(124) *gʷu* *nəš/?ixí-w-ə*
FUT LOC/get.water-MDL-IMP.s
'Go fetch some water!'

(125) *nəš/taw'-ú-gʷə*
LOC/obey-MDL-IMP.p
'Obey, you folks!'

(126) */yət-ə-cít-gʷə*
/stand-DRV-RFL-IMP.p
'Stand up, you folks!'

9.0 Topic maintenance

9.1 Topical object //-əgʷəl//

Kinkade (1990) has developed the notion of topic maintenance in discourse in several Salish languages, identifying Tillamook as one language showing that feature. Those half-dozen Salish languages distinguish two kinds of third person objects. Kinkade (1990:343) explains:

> "The main function of the topical object as contrasted with the plain (often zero) third-person object is to keep track of a topic in a section of discourse when there is more than one third-person referent present and the one that is the topic has been shifted into a patient role and designated by a pronominal object marker. In order to maintain its topicality, it is specially marked."

Tillamook's topical object suffix is //-əgʷəl//, homophonous with //-əgʷəl// reciprocal. Edel (1939:35) characterizes this suffix is an obviative, confusing it with the reciprocal. Kinkade (1989) gives many fine examples of the use of //-əgʷəl// as marking topical object in Tillamook. Edel's (1939:52) illustrative text also provides an example of the topic object in its first several lines. *Gʷəčəɬáw'* (Ice, a mythological traveler) is the topic character. Wren complains to the Heavens that Ice has burned his belly. Wren is told that the Heavens will get even (with Ice) for having burned Wren's belly. Ice is the topic (previously an agent burning Wren's belly), who shifts to a patient (object of revenge), when the Heavens tell Wren:

(127) *ɬéni* *gʷə* */?ən-əwi-t-ágʷəl* *də* *s/tənáhə* *diš* *da·/tági*
soon FUT /take-RLT-TR-TOP.OBJ ART NOM/bullrush ART DIM?·/cedar
'Soon Bullrush will take him (Ice) this cedar log.'

Finally, //-əgʷəl// topical object apparently reflects PS **-wali* (Kinkade 1989:28).

9.2 Passive in discourse

Use of //-əw// passive is another means to maintain the topicality of a character in narrative or discourse. The same device (i.e., cognates of //-əw// passive in Salish, such as in Klallam, Thompson, Spokane) may be a general feature in Salish.[43] Use of //-t-əw// basic transitive passive is especially common, for instance, in Tillamook narrative to identify who is talking, i.e., topical character or non-topical character. When the topical character speaks, an intransitive or basic transitive is used (*c/yáwin*); when the non-topical character speaks, the passive is used (*c/yawín-t-əw*). The first few lines of Edel's (1939:52) illustrative text *Gʷəčəɬáw'* [Ice] exemplify the *c/yáwin ... c/yawín-t-əw* device. When the subject character Wren speaks, *c/yáwin* is used to introduce his speech; when Wren is responded to by the Heavens, *c/yawín-t-əw* is used to introduce the Heavens' speech.

//-əgʷəl// topical object and //-t-əw// passive may be used together in narrative toward the same end, topic maintenance of a character. The difference in use of //-əgʷəl// topical object over //-t-əw// passive may be simply stylistic. There may, however, also be some interplay of the two devices. In

the above examples of Edel's (1939:52) illustrative text, the passive keeps track of Wren's talking vis-à-vis the Heavens' talking, while the topical object in the same segment keeps track of Ice as topic in the overall story line.

10.0 Conclusion

This fresh look at Tillamook provides several significant points concerning Tillamook's place as a Salish language. First, Tillamook still reflects the salient components of what must have been a complex Proto-Salish transitive system: PS **-n-t* directive, Ti //-ən-t//; PS **-xi* indirective, Ti //-ši//; PS **-mi* relational, Ti //-əwi//; PS **-stəw* causative, Ti //-stxʷ//; PS **-nəw* non-control transitive, Ti //-nəxʷ//. Tillamook may have changed the orientation of the PS system somewhat. Tillamook //-s-txʷ// causative apparently has lost its function as a true causative, which function //-əwi// relational and */yeh* compound stems have assumed. Tillamook also reflects PS **-Vm* middle, Ti //-əw//; PS **-ilx* developmental or autonomous, Ti //-il//; and PS **·VC_2* out-of-control or inceptive, Ti //·əC$_2$//.

Second, the analysis above raises some interesting questions on the building blocks for the Proto-Salish transitive system. For instance, should PS **-stəw* causative be analyzed as **-s-t-əw*, based on Tillamook components *-s-t-i* (perhaps -PUR-TR-?). Similarly, should PS **-nəw* noncontrol be analyzed as **-n-əw*, based on apparent Tillamook components **-n-i* (perhaps -DRV-?). It will be important to compare the permutations of the PS transitive building blocks in Tillamook with those in other Salish languages. For instance, southern Interior Salish Okanagan shows *-mi-st* -RLT-CAU, but not *-mi-xi* -RLT-IND (Mattina 1982:429-430). Northern Interior Salish Thompson shows *-mi-x* -RLT-IND, but not *-mi-st* -RLT-ST. (Tillamook may parallel Okanagan in showing *-əwi-s-t* (-RLT-PUR-TR), but not *-əwi-š(i)-t* (-RLT-IND-TR).

Third, Tillamook has simplified significantly the PS pronominal system. The transitive and intransitive subject pronominals have become generalized. Transitive 3.SBJ *-əs* (PS **-as*) has become marginal. The *i* vowel in earlier Ti causative allomorph **-sti-* and Ti noncontrol transitive **ni-* may have become reanalyzed as part of the directly following causative object pronominals. PS transitive 1p.OBJ and 2p.OBJ have been replaced in Tillamook by their causative object counterparts, reanalyzed as //-iwiɬ//. Transitive and intransitive 1p.SBJ has been replaced by 1p.PSV *-yəɬ* (PS **-iɬ*), perhaps analogizing to the shared shape of 2p.PSV and 2p.SBJ as //-yaləh// (< PS **-alap*). At the same time, the emphatic pronominals are relatively intact, even showing original PS stress.

Fourth, Tillamook //-əgʷəl// reciprocal reflects PS **-awalxʷ* (Kinkade 1989:30) (PS **w* > Ti *gʷ*). Tillamook homophonous suffix //-əgʷəl// topical object likewise reflects PS topical object **wali* (Kinkade 1989:28). Tillamook apparently developed a passive construction parallelling that in other Coast Salish languages (PS **(-t)-Vm* + intransitive subject pronominal). That passive construction differed from the cognate analogue of Interior Salish, which does not form the passive with the intransitive subject pronouns. In Interior Salish Thompson, for instance, the topicalized object is indicated with the regular object suffixes, which combine with indefinite dependent subject suffixes.

Fifth, the analysis above reveals Tillamook's essentially Coast Salish character. That revelation indicates that Coast Salish languages such as Lushootseed and perhaps Twana may be the best guides for future research on Tillamook. It also suggests that historically Tillamook may have been

part of a south Coast Salish continuum, until it was cut off by insurgent non-Salish languages or until it migrated southward outside that continuum (perhaps by sea).

Finally, much remains to be done. The morphological analysis above requires reinforcement and refinement. It also needs to be integrated with the phonology and syntax. Fortunately, Edel left a large body of unpublished Tillamook texts, which can be reinterpreted in light of the above analysis. That exercise should greatly augment the understanding of Tillamook. The above analysis has done the spade work for that task.

Endnotes

1. The authors' research on Tillamook and other Salish languages has been supported generously by the National Science Foundation, the National Endowment for the Humanities, and the Melville and Elizabeth Jacobs Research Fund. The authors have benefitted from discussions on Tillamook with Joan Romick, former graduate student at the University of Hawaii, and M. Dale Kinkade of the University of British Columbia. The authors received very helpful comments from Thom Hess of the University of Victoria, especially concerning comparative data from Lushootseed. Paul Kroeber of the University of Wyoming caught an important error in analyzing the stative *-c* before stems beginning with apical consonants. The Thompsons relied on Melville Jacobs's field notes on Tillamook (from the 1930s) to elicit their material. Most importantly, the authors have relied heavily on the clear and insightful analysis of Tillamook in Laurence C. Thompson's field notes. Any value of this article reflects his brilliance. The authors alone, however, assume responsibility for errors.

2. Recent scholarship includes Newman (1975-1980), Carlson and Thompson (1982), Thompson and Thompson (1985), and Kinkade (1989). Earlier scholarship is cited in Thompson and Thompson (1966:313-314).

3. The Thompsons' field notes are the basis for a Tillamook dictionary in progress at the University of Hawaii Salish Lexicography Project (Thompson and Thompson [1991 ms.]).

4. Data from Edel (1939) are converted to modern spelling and, to the extent possible, analyzed consistent with the Thompsons' material and Thompson and Thompson (1966; 1985). The data in Edel (1939) also were checked against Jacobs's [1933] unpublished field notes.

5. E.g., *gʷəʔ /tu(n')-n'əxʷ-yálə* 'you folks will go with him' (*/tun'* 'accompany' + *-nəxʷ* noncontrol transitive); *gʷə k š/tkʷ-agʷə(s)-šɨ-c-ə* 'pay me!' (*-agʷəs* 'side, back' + *-šɨ* indirective). The lost member of a geminate pair may be shown parenthetically for analytic clarity.

6. Forms are given in surface phonemics, with broad phonetic reality. Morphological boundaries are indicated with these symbols: roots/stems are marked with slanted bar [/]; grammatical affixes with single hyphen [-] (except unmarked before the root/stem mark); lexical suffixes with double hyphen [=]; and reduplication with raised bullet [·]. Infixes are shown inside brackets [...]. The following abbreviations are used to present the Tillamook data: ATL actual, ART article, AUG augmentative, CAU causative, CJV conjunctive, CNT continuative, DIM diminutive, DRV directive, DSD desiderative, DVL developmental, EMPH emphatic, FMV formative, FUT future, HBT habitual, IMP imperative, IND indirective, INS instrumental, LIG ligature, LOC localizer, MDL middle, NCT non-control transitive, NOM nominalizer, OBJ object, O.C out-of-control, PAS passive, PSV possessive, PUR purposive, QN question, RCP reciprocal, RFL reflexive, RLT relational, SBJ subject, ST stative, TOP topical, TR transitive, and UNR unrealized. Person is indicated with 1, 2, and 3; number by s[ingular] and p[lural]. Abbreviations for languages are: Fl Flathead, Kl Klallam, Ld Lushootseed, Sa Saanich, Th Thompson River Salish, and Ti Tillamook.

7. Lexical suffixes extend roots, adding a variety of nuances. Lexical suffixes may add subtle or highly specialized nuances to the root, through metaphorical extension of the lexical suffix's basic meaning. Some examples of lexical suffixes are: *-akʷč* 'basket,' *=aɬtxʷ* 'house,' *=cin* 'mouth,' *=egiɬ* 'canoe,' *=wəš* 'people,' *=šən* 'foot,' and *=yes* 'day.'

8. *nəš-* likely comprises prefixes *nə-* and *š-*, which also occur separately, providing general localizing or instrumental nuances. All such prefixes are referred to as LOC (localizer) in this analysis. Ti *nə-* reflects PS **n(V)-* 'on, at, in'; Ti *š-* reflects PS **xʷ-* (> **x* > Ti *š*) 'location, this place'; the PS **n(V)-* + **xʷ-* prefix combination is common in Coast Salish (Newman 1975:234). *nəš-* LOC is used over *nš-* to account for examples such as */ha(n)-nášč/čis* 'bad weather' [lit. 'it is weathering bad'] (/weather-LOC/bad).

9. In all Salish languages except Tillamook and Bella Coola, the subject pronominals are attached to a particle **k* (Thompson 1979:737). The initial *k* element in Newman's (1980:156) PS forms should be disregarded in comparing them with the Tillamook reflexes.

10. Tillamook intransitive subject pronominals show considerable divergence from their PS counterparts reconstructed by Newman (1980:156). Ti *//-i//* 1s.SBJ probably reflects PS **-an* through vocalization (PS **-an* > **-ɳ* > Ti *-i*). The following data suggests that the underlying form of 1s.SBJ is vocalic *//-i//*, not consonantal *//-y//*, given Tillamook's penultimate stress pattern: *də nəš/yaqʷ-anʔi-(y)* 'I washed my ears' (ART LOC/wash-ear-1s.SBJ); the underlying form is *//* nəš/yaqʷ=anʔi-i *//*; viz., *//-i//* 1s.SBJ counts as a vowel for assigning penultimate stress. Ti *//-əš//* 2s.SBJ reflects delabialization and palatalization of PS **-axʷ* : **xʷ* > **x* > š (PS **x* > Ti *š*). Ti *//-yəɬ//* 1p.SBJ probably does not derive from the possessive paradigm, Ti *//-yəɬ//* 1p.POS (PS **-iɬ*), but vice versa. Ti *//-yáləh//* reflects PS transitive 2p.SBJ **-alap* (PS **p* > Ti *h*); the apparent addition of the initial *y* element is not understood.

11. 2p.SBJ *//-yaləh//* surfaces with final *h* only rarely; e.g., *de c/siqʔi-w'-yáʔ[ʔ]ləh* 'you folks [two] are walking' (ART ST/walk-MDL-2p.SBJ[ATL]). Most often *//-yaləh//* is realized as *-yalə*.

12. Stem-initial /ʔ/ is dropped following the ST *c-* prefix. Added to articles *da* and *ɬa* here is the temporal particle *ʔ*: *da* + *ʔ* > *daʔ*, *ɬa* + *ʔ* > *ɬaʔ*.

13. There are problems with reconstructing PS pronominals. Transitive 1s.OBJ perhaps is better reconstructed as **-sam*, for instance, based on reflexes in Northern Interior Salish languages, combining with transitive *-t* as **-cam*. The plural causative pronominals are particularly messy. Newman's (1979b, 1980) reconstructions for them are based primarily

on Columbian and Upper Chehalis forms (Newman 1979b:300-303). That may be too slender a reed. In any case, Newman (1979b, 1980) provides a starting place to understand how the Tillamook pronominal system may have developed.

14. *//ə́//* may be realized phonetically as [ʌ], often transcribed *á* in the Thompsons' material. Stressed *//-wə//* 2s.OBJ before *//-i//* 1s.SBJ, for example, is transcribed *-wá-i*, stressed *ə* in *//-əwin//* relational often is transcribed as *-áwin*. Consistent with Thompson and Thompson (1966:318-319), however, such *á* forms are regularized as allophones of *//ə//* and written in surface phonemics with broad phonetic reality as *ə*. Consider also the following alternative forms for *//-cə́-i//* -2s.OBJ-1s.SBJ, showing reduction to *-cí*: (*gʷə*)
/tkʷ=àgʷə(s)-š-cə́-y
~ */tkʷ=àgʷə(s)-š-c-í* 'I will pay you' (/put=side-IND-2s.OBJ-1s.SBJ).

15. Assuming Newman (1979b, 1980) is correct, that analogical innovation apparently occurred more generally in Coast Salish, as those languages typically reflect PS **-muł* for transitive and causative 1p.OBJ, 2p.OBJ in some form (Newman 1979b:302).

16. Cf. cognate Th *-nwén'* non-control transitive, Spokane *-nú-n* id.; Okanagan noncontrol *-nu* (Mattina 1982:430).

17. The *i* vowel in Tillamook *-sti*OBJ and *-ni*OBJ is consistent with PS **-stəw* > **-stu* > *-sti*; PS **-nəw* > **-nu* > *-ni*. Cf. PS reflexive **-sut* > Ti *-sit*, showing a change of PS **u* > Ti *i*; PS **-muł* 1p.OBJ/2p.OBJ > Ti *-wiɬ* id. Lushootseed shows *-du* as an allomorph of cognate *//-dxʷ//* non-control transitive (PS **n* > Ld *d*) and *-tu* as an allomorph of cognate *//-txʷ//* causative (Hess 1967:10, 13; 1976:142, 156).

18. *Mutatis mutandis*, Lushootseed shows the same pattern. Hess (1967:23-24) gives 1p.OBJ following *//-t//* transitive as *-ubuł*, but *-buł* after *//-du//* non-control. That distribution suggests the same kind of reanalysis as with Tillamook cognates *-t-iwiɬ* (= Ld. *-t-ubuł*) and -ni-wiɬ (= Ld. *-du-buł*); PS **n* > Ld *d*, PS **m* > Ld *b*; PS **u* > Ti *i* (here).

19. Other Coast languages apparently show a parallel reanalysis of **-stu*-OBJ, **-nu*-OBJ to *-st-u*OBJ, *-n-u*OBJ. Klallam noncontrol transitive + 1p.OBJ is treated as *-n-úɲɬ* (Thompson and Thompson 1971:284) (< **nu-muł*); PS **m* > Kl *ŋ*. Saanich causative + 1s.OBJ is treated as *-st-áŋəs* (Montler 1986:150-151, 158) (< **-stú-muł*); PS *ú* > Sa *á* (Thompson, Thompson, and Efrat 1974:184, 195).

20. The EMPH.2p and EMPH.3p forms are based on Edel (1939:44); Jacobs [1933:156] also supports the form given for EMPH.2p.

21. Jacobs (1933:156) writes the form as *dzə?ndzántc*, which likely represents *cə[?]n·/cánš*, showing the actual infix [?]. Edel (1939:44) writes the form as *dzʊndzʊntc*, which likely represents *cən·/cánš*. The form does not occur in the Thompsons' material. Cf. Twana *cəd·/cádaɬ* 'they' (Drachman 1969:268) (PS **n* > Twana *d*).

22. The survival of the PS subject pronominals in the conjunctive set is especially interesting. The conjunctive pronominal counterparts in the subject suffix paradigm show considerably greater change from the PS forms.

23. Edel (1939:37) writes *galála*, which likely represents */gʷələ́lə* or */gʷəlálə*. The form */gʷələ́lə* is chosen here as parallel to *gʷəl·/gʷə́lə* 2p.EMPH from PS **wəláp*.

24. Ti 1s.CJV is reduced from *gʷən* to *kʷ* (with additional devoicing). Edel (1939:37) gives as variants of 1s.CJV, *-ga*, *-k* (*gʷə* and *kʷ* in modern spelling). Both show loss of final *n* from expected *gʷən*. The Thompsons' material also shows reduced *gʷə* 1s.CJV: *gʷu /niš gʷə gʷu /yeh=s-i-w'ə́-y* 'when I come back, I will see you.' (FUT /return 1s.CJV /cause=eye--?-[ATL]2s.OBJ-1s.SBJ).

25. A further example: *gʷu /níš gʷəš gʷə /yeh=s-i-wə́š-š* 'when you come back, you will see me' (FUT /return 2s.CJV FUT /cause=eye-?-1s.OBJ-2s.SBJ).

26. This predicative is a compound stem (i.e, root + root). */yeh* 'cause' is found in other compounds: */yə-gʷə?·/kʷál-əw* 'have a baby' (/cause-DIM·/child-MDL); */ye-s/win'áh-əw* 'get married' (/cause-NOM/husband-MDL); */ye-s/čəgʷáš-əw* 'get married' (/cause-NOM/wife-MDL); *gʷə /ye-s/q'h-áw-i* 'I will get firewood' (FUT /cause-NOM/wood-MDL-1s.SBJ); *də s/yə-s/?əhal-əwi-tán-i* 'I am a cook' (ART NOM/cause-NOM/food-RLT-INS-1s.SBJ); */ye/?ecχʷáy-əw* 'bury dead person' (/cause/dead-MDL), cf. */?écχʷi* 'dead.' Further examples of */yeh* compounds, which Edel (1939) treats as prefixation, can be found in Edel (1939:18-19, 21), under the headings for "prefixes" *ya-* (= */ye(h)* 'cause'), *yaɬ-* (= */ye-ɬ* /cause-LIG), and *sia-* (= *s/ye(h)*
NOM/cause-).

27. *gʷu* is a combination of *gʷə* 'future, conjectural' and directional particle *u*. Cf. Edel (1939: 12). Elsewhere *gʷə* occurs as *gʷə?*, with temporal particle *?*. Such combinations are treated collectively as FUT in this paper.

28. Cf. */ye-s/xʷsel'-s-á-t-i* 'I made him a present' (/cause-NOM/present-PRP-DRV?-TR-1s.SBJ); (*/ye-s/xʷsél'-ɬ* 'present').

29. Mattina (1982) analyzes the relational cognate in Okanagan as *//-mi//*. Montler (1986:172) analyzes the relational cognate as *//-ŋiy//* in Saanich. The authors have analyzed the relational cognate in Thompson (and Spokane) as *//-min//*. The Tillamook data support an analysis in Thompson as *//-mi-n//*, -RLT-DRV. Thompson examples such as */zoʕʷ-mí-x-cm-s* 'he is strong for me' (/strong-RLT-IND-1s.OBJ-3s.SBJ) also support that alternative analysis; there is no *-n* -DRV in the surface form, and no phonological or morphophonemic rule is required to delete *-n* from the underlying form. That alternative analysis of relational as
-mi-n (over *-min*) in Thompson would allow for parallel morphological positioning of semantically opposed indirective *-xi* and directive *-n* after the relational *-mi*; i.e., *-mi-x* versus *-mi-n*.

30. Cf. *de c/həwačə́ʔ-əw* 'he is tired' (ART ST/tire-MDL).

31. Cf. middle stem *n/x̌ʷayəš-ə́w-i* 'I am afraid' (LOC/afraid-MDL-1s.SBJ).

32. Cf. *de c/ʔəx̌á-i ʔəy nə s/ʔaʔáɬəw* 'I am walking on the beach.'

33. The expected stress would be on the final syllable as ...*-c-í* # from //-cə-i// (-2s.OBJ-1s.SBJ). This form likely indicates a coalescence of the underlying vowels (> *i*) before stress assignment on the penultimate underlying vowel, instead of such coalescence after stress assignment.

34. Cf. also */qʷax̌ʷ-ə-cít-wi-n* 'he bandaged himself [to cover wound]' (/wrap-DRV-RFL-RLT?-DRV).

35. Analogous rules account for cognate reflexive allomorphs Th *-e-st* and *-cút* and Fl *-i-st* and *-cút*, from underlying //-n-t-sut// -DRV-TR-RFL; Th *e* in *-e-st* and Fl *i* in *-i-st* derive from vocalization of cognate *-n* DRV.

36. The prefix *š-* here is not the LOC *š-* prefix; it is *š-* desiderative. E.g., *dé š-s/tqʷ-ən* 'he wants to break it'; *de š-s/waɬ-ə́w-i* 'I want a rest'; *de š-s/iɬə́n-i* 'I want to eat' (Edel 1939:17).

37. The Lushootseed cognate root */c'ukʷ* 'suck' (PS **w* > *kʷ*) suggests that Tillamook */c'əwə́ʔ-stxʷ-* 'nurse' reflects the original nuance of the causative suffix *-stxʷ*; i.e., 'to nurse' is 'to cause [a baby] to suck.'

38. */yeh=is-* 'see' often is realized as */yəh=is-* (or */yəh=s-*). */yeh=is-* provides the most complete paradigm for the causative suffixes in the Thompsons' material.

39. Vogt (1940) first used the term indefinite dependent form instead of passive, followed by Thompson and Thompson (1992), for Interior Salish cognates of Ti //-t-əw//. The term passive is used here instead of indefinite dependent form because the two show different morphological developments. In Thompson, for instance, the indefinite dependent form occurs as a transitive subject suffix with the regular object suffixes. Ti //-t-əw// and its cognates in Coast Salish (e.g., Ld, Sa, Kl) occur with the intransitive subject pronominals; that looks more akin to a true passive.

40. Cf. causative *de c/gʷəʔə́š-(s)txʷ-i* 'I killed it' (ART ST/beat-CAU-1s.SBJ).

41. E.g., Ld *ʔu/hili-tˀ-b čəd* 'I was told,' COMPLETIVE/tell-TR-PAS 1s.SBJ (Hess 1976:193); (PS **m* > Ld *b*, PS **k* > Ld *č*, *PS *n* > Ld *d*); Sa */x̌ɬ-ə́t-əŋsən* 'somebody hurt me,' /feel.bad-TR-PAS 1s.SBJ (Montler 1986:181) (PS **m* > Sa *ŋ*; PS **k* > Sa *s*).

42. Thompson (1979:743) reconstructs PS imperative suffix **-waʔ* / **-aʔ* (distribution unclear) (PS **w* > Ti *gʷ*).

43. Kinkade (1989) discusses the use of the passive to maintain topic reference in certain Salish narratives. Vogt (1940:68) and Kuipers (1974:78) similarly had remarked on the use of the passive as a topicalizer in Kalispel (Vogt's "indefinite dependent form") and Shuswap respectively.

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