

Person, Number, Gender in Chinook:
Syntactic rule and morphological analogy

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I take up here the history of several inflectional categories of Chinookan, a linguistic family of the Columbia River,¹ and show how these expanded and developed from simple beginnings. A rich theory of historical restructuring, which Kuryłowicz (1945-49) termed "so-called 'analogical' laws," is integral to this historical account. Restructuring consists in the expression of new relations and categories in surface morphological form, working out the tensions between surface-segmentable "lexicalized" and "linearized" aspects of signifier (form-class and order-class), on the one hand, and functionally-interpretable "grammaticalized" aspects of signified. It focuses for us several important lessons, too long ignored or misunderstood both in historical work on American languages and in American linguistics generally, especially recent historical theorizing.

First, surface morphological categories, in terms of which classical markedness theory operates, are the primary loci of all linguistic change, such change being distinct from syntactic transformations (or phonological rules) in a synchronic grammar. There is no reason to expect that the actual processes of historical change are constrained in the same way as the rules of a grammar. The historical expansion of the inventory of morphological categories, unmotivated by any semantico-syntactic account, is an excellent example of this distinction in principle. Second, doing morphological history involves entailed hypotheses about the syntactic mechanisms that at each stage give rise to the morphological forms by semantically-determined grammatical rules. We must be able to say that morphological formations in an historical sequence are "motivated" by---code---various semantic relations. Third, morphological structure expresses lexical and grammatical categories that organize the stuff of semantics and pragmatics in overlapping, but functionally distinct ways, giving rise to surface tensions that are worked out historically, and in turn creating new configurational tensions.² No attempt to eliminate this aspect of change can succeed in characterizing linguistic history.

1. Order-classes and categories. The Chinookan morphemes expressing person, number and gender occur in both

passive.³ The indexicals A-H have "singular" as the marked number category ([+sg,+restr]), then "dual" ([-sg,+restr]), then "plural" ([-sg,-restr]); while the "third persons" I-M have "dual" as the most marked member ([+pl,+restr]), followed by "plural" ([+pl,-restr]), "neuter-collective" ([-pl,+restr]), then "singular" ([-pl,-restr]). "Gender" occurs only in the last. Observe how the defining features configure into a hierarchy that shows specified referential content vs. unspecified, then traditional person, number, gender, in that ranking.

There are, of course, universalist reasons for the configuration, which I shall not elaborate here. For example, the third person singular masculine is the most 'unmarked' "personal" category bundle. Contrastively, at a level of syntax motivated by meaning, the so-called "first- and second-person" forms are the only true pronoun indexes, part of the pragmatic system of speech, while the "third person" forms are merely pronominal anaphoric and cross-referencing devices, which derive their features syntactically from lexically specified nouns, except in certain morphosyntactic idioms. The welding together of A-H of the indexical pronoun system, plus I-M of the substantive system, plus N representing abstract noun phrase of 'Agent' propositional function, into a single, hierarchically-classified surface system at the morphological level, is one of those remarkable economies of formal surface structure that creates tensions in the grammar resolvable by morphological change. For, the different kinds of reference localized in these noun phrase types are differentially linked by universals of "naturalness" to the various globally-determined propositional, deferential, clause-linking, and co-referencing grammaticalized functions of syntax.⁴

In (3), the forms of the pronominal morphemes are displayed as a function of the quadripartite morphological order-class characterization, matched against the six-function characterization by surface syntax. (Based on the parallelism of form shown in (1), and on overlap of secondary syntactic functions, we conflate here the Noun-Verb dichotomy.)

2. Pronominal forms. The four morphological order-classes show a high degree of formal regularity, it is clear on inspection. The nominative form is the basic alternant, and the formal regularities in terms of it may be summarized as follows. The dative order-class form, with one exception (J), is the same as the nominative. The possessive form is just the nominative with postfixed -a-, except for C, F, J, L. The ergative form is the nominative with postfixed -k-, ex-

(3) Pronominals

	morph: syntax:	Ergative		Nominative		Dative ind obj	Possessive
		(V) tr subj	(N) poss of human	itr subj appos	tr obj		
incl	dual	A t(x̣)-k-	-tḡ-	-tḡ-	-tḡ-	-tḡ-	poss of nonhum ^h
	plur	B l(x̣)-k-	-lḡ-	-lḡ-	-lḡ-	-lḡ-	-tḡ-a-
second	sing	C m-	-m-	-m-	-m-	-m-	-mi-
	dual	D mt-k-	-mt-	-mt-	-mt-	-mt-	-mt-a-
	plur	E mš-k-	-mš-	-mš-	-mš-	-mš-	-mš-a-
	sing	F n-∞ ∅-	-n-	-n-	-n-	-n-	-kə-~ -čə- ¹
first	dual	G nt-k-∞ q-	-nt-	-nt-	-nt-	-nt-	-nt-a-
	plur	H nš-k-∞ q-	-nš-	-nš-	-nš-	-nš-	-nš-a-
	dual	I št-k-	-št-∞-š- ²	-š(t) ³	-š-	-š-	-št-a-
	plur	J t-k-	-tk-∞-t- ²	-t-	-w-	-w-	-tk-a-∞-t-a- ⁴
third	coll-neut	K l-k-	-l-	-l-	-l-	-l-	-l-a-
	sing-fem	L k-	-(a)-	-(a)-	-(a)-	-(a)-	-k-a-~ -č-a- ¹
	sing-masc	M č-	-i-	-i-	-i-	-i-	-i-a-
impersonal	N q-						

¹Alternant with č after i; elsewhere alternant with k.²First alternant in verbal paradigm; second alternant in nominal paradigm.³Lower Chinook (Shoalwater dialect) alternation only, -št- following stress accent, -š- elsewhere; cf. Boas 1911:583. Other dialects have -š-.⁴Contemporary Wasco-Wishram dialect only, second alternant as sporadic regularization of paradigm.

cept for C, F, G, H, L, M. For instances where these regularities do not hold true, two means of explanation are to be employed. First, upon syntactic analysis, it turns out that some of the morphological irregularities are explained by pervasive and regular syntactic transformation, for example the ergative forms of rows C, F, G, H. Thus, the apparent irregularity of morphological form can be seen to code the syntactic regularity of split-ergative inflection, overriding, as it were, the expectation at the purely morphological level. Second, the other class of morphological irregularity turns out to be the evidence for restructuring from an earlier system, such as the possessive forms of rows C and F, and the entire set of "third person" forms, which have elaborated new categories of number and gender. The unravelling of this last set, by means of historical mechanisms of 'analogy,' turns out to converge with the syntactic evidence of the first kind, and is confirmed by it.

Perhaps the most curious aspect of the morphemes displayed in (3) is the fact that row J, the attested third plural category, shows the greatest formal differentiation, a distinct shape coding each of the six distinct syntactic functions. Clearly, by our usual criteria of markedness, we would expect the third singular masculine, maximally unmarked by the categorization of (2), to show the greatest formal differentiation. That the third plural shows this turns out to be an historical survival of an older inflectional morphosyntax, in which gender did not figure, and in which number was expressed by segmentable suffixal morphemes. In other words, there was a "third person" form (* \emptyset) opposed to "first," "second," and "inclusive" forms of pronominals. The rest of the system of attested inflectional pronominals developed through time.

Further, we will be able to explain the rise of the full ergative forms of pronominals in their respective order-class by an analogical mechanism founded on the split-ergative syntax of the unique reconstructable third person form. An earlier system will emerge with only two verbal and one nominal order-class of inflectional pronominals, which are continued in the attested nominative and dative order-classes of verbs, the possessive of nouns. I will take up the syntactic transformations of attested Chinookan dialects first, using them to draw upon historical mechanisms of analogy second.

3. Reconstructing case inflection. There is a class of obviously archaic two-place verbs ("inverse transitives") in Chinookan, mainly verba sentiendi, the morphological para-

digns of which are "split." Part of the paradigm codes the 'Patient' and 'Agent' with nominative and dative order-classes showing transitive object and indirect object forms of pronominals, as in (4a). Part is fully transitive, with ergative and nominative order-classes and pronominal forms, as in (4b).

(4)	(a)		Nom	-	Dat	-	Postp	-	Stem
	(b)	Erg	-	Nom	-		Postp	-	Stem

These latter "thematized" forms occur in just those configurations which are characterized by the structural description 'SD' of (5). The feature variable here, F_i , is defined by the

(5) Thematization schema:

	Erg	Nom	Dat	Postp	
SD:		[+ F_i]	[- F_i]	X	$F_i = a, b, c$ of (2)
SC:	[- F_i]	[+ F_i]	\emptyset	X	

set of chart (2) in the order given there; i.e., the features of chart (2), a, b, c, define a syntactically-expressed linear hierarchy of the person types, left-to-right.

If what is labeled 'SD' in (5) is taken as akin to an underlying form for inherently two-place verbs (predicates), we can explain by the hierarchy of chart (2) why the "impersonal" noun phrase N, the rightmost pronominal category, occurs only in the ergative form-order-class. It must always undergo thematization rule (5). Further, note that for the "person" features of chart (2), the hierarchy predicts that "third person" forms will be thematized from dative order-class whenever the nominative is "first" or "second" person, that "first person" forms will be thematized only when the nominative is "second," and "second person" forms will never be thematized.

Looking now at the forms in (3), in row C we see that the second singular ergative order-class pronominal has no special mark distinguishing it from the nominative or dative. In row F, the first singular ergative order-class pronominal is deleted only when the nominative is second person; otherwise it shows a form identical with the nominative form. In rows G, H the exclusive non-singulars have ergative order-class form q-, identical to unspecified 'Agent' N, under the same conditions. The inclusives and second person dual and plural have regular forms, nominative-plus-k-, in the ergative order-class. These formal facts are summarized by a rule specifying particular ergative form, as in (6), the parts of which are strictly ordered by the order of features given.

(6) Ergative pronominal forms:

- | | |
|--------------------------------|-----------------------------------|
| (a) For $F_i = a, b$ of (2), | Erg - Nom |
| | $[-F_i] - [+F_i]$ |
| | → $\emptyset - \infty q - [+F_i]$ |
| (b) For $F_i = c, d_1$ of (2), | Erg - Nom |
| | $[-F_i] -$ |
| | → nom-k- |

Taken together, rules (5) and (6) are really case-marking rules, in what can be called a "global split-ergative" system of case-marking (Silverstein 1977). We assume that the nominative-dative construction of the inverse transitives represents the underlying arrangement of 'Patient' and 'Agent', and we assume the principle of hierarchization of features of noun phrases. Then change (5) applied to regular verbs regardless of features, and to inverse transitives as indicated, will generate the ergative order-class. Finally, rule (6) will specify the correct ergative shapes of pronominals.

It should be observed that this fits the possessive morphology of the noun as well, once we identify the appositional pronominal in nominative order-class in (1b) with the nominative of (5), and the possessive with the dative. Possessive, or genitive, thus becomes an 'adnominal' dative, with basic postpositional element -a- following. When the appositional nominative is human in reference, the thematization rule (5) applies, giving ergative-nominative order-class inflection, while preserving the "postpositional" element -a- intact, as (5) dictates. Regular case-marking is completed by (6). In this way we can understand why all the "possessed human apposition" forms in (3) are to be understood as nominative order-class, the following -a- being postpositional in this construction.

Projecting back historically, we can see that at an earlier stage, Proto-Chinookan must have had a predicating construction with at most two pronominal inflectional elements, in the order *(Object-) Subject-, and the verb (or predicate) must have consisted of an optional adverbial element (continued in the postposition) followed by the root. There was a case-marking system that resulted in *Subj-Obj- order in split-ergative fashion, as shown in (7a). It is the unmarked third person transitive subject construction, with this "ergative" order-class, that is generalized by analogical restructuring to the rest of the personal forms, leaving an attested class of "inverse transitives" as an historical residue, as in (7b). This historical development creates the three-order-class in-

(7) (a) Reconstructed:

		*(Object)	-	Subject	-	...
=>	*Subj-[-F ₁]	-	Obj-[+F ₁]-			
	"Ergative"		"Nominative"			

(b) Resulting from analogy:

direct:	(Erg-)	Nom	-	(Dat	-	Postp)	-
inverse:		Nom	-		Dat	-	Postp	-

flexion in the verb from an earlier two-class construction, the vestige of which is still preserved in the "thematization" of the split-paradigm inverse transitives. As will become apparent once we examine the rise of number and gender categories, the older schema of inflection must have employed phrasal enclitics, while the newer system is a prefixing one.

4. Expansion of categories and forms. Since the analogical creation of a special ergative order-class originates in the third person transitive paradigm, it is here that we should seek the origin of the ergative postfix -k- characteristic of the first column of pronominals in table (3). In particular, the attested third plural, in row J, shows superficially identical forms for transitive and intransitive subject, given as t-k- and tk- respectively in ergative and nominative order-classes. The unity of these forms can be motivated functionally if we see them as remnants of a "topic"-marking system which subsumes fronting the third person transitive subject to first position of the pronominal sequence, the very "split" of the transitive paradigm reconstructed as in (7a).

Notice that without such a formally-distinct "topic" or its equivalent, it is impossible to implement a reconstructed split order-class system such as that in (7a). For, were (7a) implemented without formal differentiation of morphemes representing 'Agent' and 'Patient', there would be hopeless confusion of this part of the transitive paradigm, as shown in (8).

(8) Ambiguous ("unrecoverable") surface marking:

	transitive	intransitive
3 pers 'Patient':	Obj - Subj - X	Subj -
3 pers 'Agent':	Subj - Obj - X	X

We can conclude that the split-ergative system must indeed have originated in a topicalization fronting rule in at least the third person forms, the attested remnant of which is the surface phonetic identity of third plural transitive subject and in-

transitive subject pronominals. Further, it is the *k of the reconstructed *tk- topicalized first-position pronominal which seems to have been generalized as the marker of the newly-created ergative series coding 'Agent'.

This could have come about only by opposition of 'Agent' and 'Patient' forms in the third-on-third paradigm, a result of morphological 'polarization'. In particular, the older system must have included third person form zero (*∅) before the rise of the attested ergative prefixing system, so that even with topicalized form *tk- for first-position Subject, there was ambiguity between transitive third-on-third and intransitive third person paradigms, as shown in (9a). As shown in (9b), the

(9) Resolution of ambiguity by polarization:

(a)		transitive	intransitive
	3 Agt - 3 Pat:	Subj - Obj -	3 pers: Subj -
		*tk - ∅ -	*tk -
(b)	>	*t+k - t -	: *tk -

new opposition of *t+k- vs. *-t- resulting from polarization (akin to back-formation), is the means of differentiating the transitive vs. intransitive inflectional schemata. This creates the ergative postfix -k- in the third person forms of the transitive paradigm, which is then generalized throughout the emergent ergative-nominative inflection, in particular to all the third person forms and to the nonsingulars of first and second person forms. This distribution suggests that number and gender were not categories of the sequence of inflectional pronominals before the rise of the ergative form-class in -k-.

5. Number. The category of number must have entered the pronominal paradigm from a set of suffixes still attested in the various dialects on substantive and deictic forms. Such elements as -št 'dual', -t(i)k- 'plural', -š 'plural' (deictics only), *-l(a)⁵ *'neuter-abstract' > 'neuter-collective' must have formerly functioned only as optional suffixes in bound shapes. The distinct third person pronominals, then, must have been elements that were associated with topicalized status, surfacing as suffixes to nominal or deictic stems in position preceding the verb, as in (10). Thus can we motivate the rise of the

(10)	I *Stem-št -(Pron)- Verb	>	št-Verb- : št-k-Pron-V
	J *Stem-t(i)k-(Pron)- Verb		tk-Verb- : t-k-Pron-V
	K *Stem-l -(Pron)- Verb		l-Verb- : l-k-Pron-V
	L-M *Stem- (Pron)- Verb		*∅-Verb- : *∅-k-Pron-V

third person dual pronominals in row I of table (3) from the dual suffix of a pre-verbal topic, whether substantive or deictic. The suffix fuses with the verb as a prefix, receiving by analogy from *t-k- its proper ergative marker when it precedes another pronominal. Similarly, the neuter-collective of row K in table (3). But if these were optional suffixes at an earlier stage, then the singular must have been just the stem to which these suffixes attach. Such a singular, as indicated in (10), should be reflected in the attested pronominal paradigm as * \emptyset -k- : - \emptyset -, if we disengage the topicalizer stem and apply the analogical mechanisms of the other third person forms.

Indeed, it is the attested third person singular feminine, in row L of table (3), which fits almost precisely this form. In the verbal paradigm, the feminine is expressed by -a- in certain combinations of pronominals, and by zero (- \emptyset -) in others. The contexts for the appearance of the feminine singular as -a- are almost identical to the contexts in which regular epenthesis of -a- applies to break up consonant clusters of morphological inflections, as shown in (11). We can pro-

(11) Epenthesis rule:

$$-\left\{\begin{array}{c} C- \\ \# \end{array}\right\}C - CC- \longrightarrow -\left\{\begin{array}{c} C- \\ \# \end{array}\right\}C - aCC-$$

(e.g., -n-x-m-l- \rightarrow -n \dot{x} aml-)

ject back from this distribution of feminine forms, and see that the -a- vs. - \emptyset - alternants of the feminine singular are historically derived from a morphological zero, to which, in the ergative order-class, the ergative marker -k- is postfixed, i.e., * \emptyset -k-. Such a reconstructed form, deduced from the number formations as in (10), indicates that the attested 'feminine singular' continues an older '*third person singular' of the same (* \emptyset) shape, which had no subdivision for gender. That is, we must show how gender developed as the last of the inflectional categories of pronominals.

6. Gender. Sapir (1926 [1949]) showed that the attested ergative forms of feminine and masculine come from forms of more regular morphology, both having ergative marker -k- postfixed to a basic pronominal, as shown in (12a). Actually,

(12) (a) Sapir forms: *a-k- > k- 'ergative feminine'
 *i-k- > *i-č- > č- 'ergative masculine'

(b) corrected: * \emptyset -k- > k-
 *i-k- > *i-č- > č-

the morphophonemic data he uses, palatalization of *k after *i (see also table (3), note 1), require the reconstruction of *k- alone for the earlier feminine ergative, as shown in (12b). This \emptyset -k- reconstructed ergative fits exactly with our data. Additionally, we see from row M of table (3) that the masculine singular is entirely regular in formation, once we reconstruct *i-k- as the ergative (before palatalization and loss of vowel), contrasting with simple -i- in all other formations. The formal opposition we reconstruct as coding 'masculine' vs. 'feminine' must be, then, *-i- : *- \emptyset -. The rise of this opposition can be understood from considering the history of the nominal paradigm, in particular, of the possessed noun.

Of the two possessive schemata in (1b), the "thematized" one used with possessed human referent was seen to be a recent innovation. The non-thematized nominative-possessive schema has dative-like possessive pronominals, the forms of which, from table (3), are regular except for rows C, F, J, L, first and second singular, third plural and singular feminine. The possessives of the last two categories are formed not from nominative-plus-a-, but from ergative-plus-a-, a particular formation which dates from the time when there was only third plural vs. third singular. But this ergative-plus-a- formation must have replaced an earlier possessive form which lacked number differentiation, and which formed part of the paradigm containing also the irregular first and second singular forms.

This earlier third person possessive is seen in row J of table (3), as the dative of the attested third plural. Whenever the third plural dative occurs in a verbal paradigm before the unmarked postpositional element -l- 'to, for', the morphologically expected sequence -t-l- does not occur, but rather the form -wi-, as shown in an example in (13).⁶

- (13) Expected morphological form: \check{c} -i-t-l-... 'he..it to them'
Phonetic form: \check{c} iwi...

Such a form -wi- is entirely parallel to the attested second person singular possessive -mi-, now unanalyzable, and to the reconstruction *-ki- of the first person singular possessive -k \check{a} - \sim - \check{c} \check{a} -, now also unanalyzable. We are thus to reconstruct the possessive in earlier Proto-Chinookan as literally an 'adnominal' dative, and the earlier third person possessive as a form *-wi-.

It happens that the archaic and now archaicizing forms of the masculine and feminine "number-gender" prefixes are wi- and wa-. In contemporary Wasco-Wishram, the w- gen-

erally drops except in monosyllables. Kathlamet (Upper Chinookan) has essentially the same system, with prefix w(u)- on feminine deictics and on certain song words. Shoalwater (Lower Chinookan) has w-~u- on feminines throughout. Such a dialect cleavage seems to derive from an earlier opposition of *wi- : *w-, the latter undergoing epenthesis as in (11), reinterpreted as *w-a- : *w-∅- in opposition to *w-i-. That is, a morphophonemic ∅ which sometimes surfaces as -a- is reinterpreted as a morphological element -a-~∅-, in opposition to a morpheme -i-.

Observe that an inherited third person possessive form, one of a set of optional prefixes on nouns, has been identified as the source of the Chinookan gender prefixes differentiating masculine from feminine nouns. *w-i- and *w-(a)- must have moved out of possessive function, explaining the appearance of attested 'third plural' possessive -tk-a- and 'third feminine' possessive -k-a-~č-a-, which are ergative-plus-a- in form, as replacements before the rise of gender as such. That is, the order-class sequence "nominative" (*w-i- or *w-(a)-) followed by "possessive" (-tk-a- or -kč-a-) was established before the rise of the number-gender system, though we cannot identify the function of the "nominative" elements from which the gender markers derive. It is from this ordering of two classes that, by analogy from the emergent verbal paradigm, the possessive schema (semantically akin to a nominative-dative predication) gets its full attested paradigm, as in (1b).

Gender as a pronominal category is thus late, marginal to the structure of the inflectional system, and unmotivated from within the reconstructed language. We can trace the forms, but cannot motivate the expression of this area of reference. Gender distinctions, however, are a very exceptional areal feature, as Boas many times noted (e.g., 1929 [1940]: 221), limited to Tillamook, Chehalis, and scattered other Coast Salish languages, to Quileute, and to Chinookan. Chinookan is exceptional within the proposed Penutian phylum in having gender. As can be shown for categories of tense-aspect (Silverstein 1974: §§3.4; 4.1-2; 7.3), Proto-Chinookan must have been under heavy categorial influence from the languages surrounding on the coast, before the speakers started moving upriver. It is, I think, in this external influence that the adventitious rise of gender categories can be understood.

Such a reconstruction substantiates Sapir's claim (1926 [1949]: 203-4) that the rich ergative case-marking prefix system of Chinookan is all a recent development on an earlier, "Penutian"-like nominative-accusative phrasal-enclitic syntax.

Notes

- ¹The first draft of this paper was read to the XIIth Conference on American Indian Languages at the annual meeting of the American Anthropological Association, New Orleans, November, 1973; the second draft at the annual meeting of the Linguistic Society of America, San Diego, December, 1973. Field research on Kiksht (Wasco-Wishram, Cascades, Clackamas) has been supported variously by the National Science Foundation (Graduate Fellowship Program), American Philosophical Society (Phillips Fund), Society of Fellows (Harvard University), Department of Anthropology, University of Chicago (Lichtstern Research Fund), to all of which I am most grateful.
- ²There has been an unfortunate tendency of late to duplicate at the structural level---in the guise of "naturalness" and related notions---essentially the kinds of historical theories formulated at the strictly phonetic level in the nineteenth century under the rubric of "ease of articulation" or "euphony." We must realize, however, that any "natural" structural notions such as "bleeding" and "feeding" of ordered rules, can be defined only locally within a grammar, within the domain defined by an iso-functional set of rules, that is, rules that interact precisely because they are implemented in generating surface expression of some particular meaning relations, abstracted from the whole. Such notions, by their very nature, have nothing to say about the kinds of structural tensions that accrue to any linguistic system because it organizes a tremendous number of meaning functions that are ultimately expressed in a single, linearized, segmentable surface signal, with multifunctionality of any given segmentable category at the surface. Perhaps the fact that the examples adduced have been from the realm of morphology conceived of as (morpho)phonology, a so-called "interpretive" component of grammar, has obscured the real nature of this 'higher euphony' as an explanatory dead-end.
- ³Chinookan languages show a systematic distinction between active inflections of transitive verbs (expressing 'Agent' and 'Patient'), and several kinds of passive inflections, which exclude expression of the 'Agent'. In addition, a pronominal element (generally unmarked masculine singular č-/i-) cross-references various indefinite-interrogative stems, distinct in the several dialects. Finally, "impersonal" q- never cross-references any noun phrase and specifies only 'Agent'. Contemporary Wasco-Wishram speakers (perhaps due to English indefinite they) seem to use as well non-cross-referencing 'neuter-collective' ergative pronominal ɪ-k- for equivalent construction types.

⁴These are spelled out in greater detail in my "Hierarchy of features and ergativity" (Silverstein 1977). There the whole basic inflectional syntax and complex-sentence system is treated within a universal framework that redefines the nature of so-called "ergative-absolutive" and "nominative-accusative" case-systems. It shows them to be multifunctional devices expressing case-relations, deference forms, and co- and switch-reference, in complicated but regular interactions with other categories, such as voice, aspect, clause-complementation linkage, etc.

⁵This form is not a synchronically-segmentable number suffix. Its origin has not been worked out on Chinook-internal evidence, but it may very well be a cognate of Sahaptian *-*l̥*, a type of nominalizer that fits with the semantics of the Chinookan category, and of various Oregon Penutian derivational suffixes of the same shape. I do not digress on this here.

⁶In addition, the "directional" morpheme -u- 'distad' that usually follows the pronominal complex does not appear after -wi- from {-t-l-}. This has interesting historical implications in itself, which would fill out, I believe, the reconstruction discussed.

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