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Reconstruction and History of the Independent Indicative

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The great similarity of the Algonquian languages means that where the languages seem not to match each other exactly an explanation is both demanded and likely to be possible.¹ It is thus understandable that the reconstruction of the Proto-Algonquian inflections of the indicative mode of the independent order has attracted so much attention. Originally this mode provided the verb in the commonest type of declarative sentence, as it does in most of the languages, but Bloomfield (1946:97-99) was unable to reconstruct full paradigms, noting that the four languages he used (Meskwaki, Cree, Menominee, and Ojibwe) “disagree as to the plural forms of first and second persons” and in transitive verbs also in the third person. A reconstruction proposed to account for all forms in all languages (Goddard 1967, 1974, 1979b, 2000) has been criticized and revised by Proulx (1990, summarizing his earlier work) and Pentland (1999).

This paper presents a new revision of the reconstruction, synthesizing ideas from all earlier proposals. Reconstruction of the proto-paradigms necessarily requires also a reconstruction of the subsequent history of these inflections in the languages, and the most significant aspects of this will also be addressed. Not treated here, however, are the innovations peculiar to Blackfoot, the most divergent Algonquian language if not a sister language to all the rest collectively (Proulx 1980a:14; Goddard 1994a:187-189).²

INTRODUCTION

The pronominal endings

The inflection of all independent indicative forms includes a central suffix from one of three sets. There may also be a pronominal prefix, most tran-

1. I am grateful to David Costa and an anonymous reader for their comments.

sitive forms have a theme sign (giving information about the primary object and the stem class), and the central suffix may be followed by a peripheral suffix.

Most of the disagreements among the languages that need to be resolved are in the shape of the central suffixes. First approximations of these, written in putative Proto-Algonquian form, are in 1. There are three sets, each characterized by a different formative element. The m-suffixes outside the third person have a formative element PA **-ehm* (most commonly reflected with /m/ or /p/).³ The w-suffixes have PA **-w* (though this is lacking in some forms), and the n-suffixes have what would be PA **-en*, **-ene*, or **-ena*.⁴ All three sets have the same suffixes indicating person and number (**-Ø* sg. and the pluralizers **-ena·n* 1p, **-enaw* 12, and **-wa·w* 2p,3p), except where the m-suffixes have **-w- 3,0* (i.e., third person animate and inanimate). All three sets also are used with the same pronominal prefixes (PA **ne-* 1, **ke-* 2, **we-* 3) except, again, for the third person of the m-suffixes, which takes no prefix. The prefixes and theme signs will be omitted from the paradigms of suffixes discussed in what follows, but full inflections are reconstructed in the final section.

2. Abbreviations: Ab Abenaki; abs. absentative; AGV Arapaho–Gros Ventre; Alg. Algonqui(a)n; AI animate intransitive; AI+O animate intransitive with secondary object; anim. animate; Ar Arapaho; C Cree; Ch Cheyenne; conj. conjunct; def. definite; Del Delaware; dim. diminutive; EAb Eastern Abenaki; EC East Cree; EMah Eastern Mahican; EO Eastern Ojibwe; exc. exclusive; FOC focus; fut. future; GV Gros Ventre; Ill Illinois; imp., IMP imperative; inan. inanimate; inc. inclusive; indef. indefinite; K Kickapoo; m m-suffixes; Mah Mahican; Mal Maliseet; Mass Massachusetts; Men Menominee; Mes Meskwaki (Fox); Mic Micmac; Mont Montagnais; Mun Munsee (Canadian Delaware); n n-suffixes; NAr Northern Arapaho; neg. negative; NUn Northern Unami (18th century); O Ojibwe; obv. obviative; Ott Ottawa; PA Proto-Algonquian; Pass Passamaquoddy; PEA Proto-Eastern Algonquian; PF particle final; pl. plural; POT potential; pres. present; pret. preterite; PV preverb; s suffixed allomorph; SAr Southern Arapaho; sg. singular; Sh Shawnee; SUN Southern Unami (Oklahoma Delaware); TA transitive animate; th. theme sign; TI transitive inanimate; Un Unami; Va. Alg. Virginia Algonquian; voc. vocative; w w-suffixes; WAb Western Abenaki; WMah Western Mahican.

1s first singular; 1p exclusive; 12 inclusive; 3 third animate; 3' third animate obviative; 0 third inanimate; X indefinite (subject or possessor); 2p–0p second plural acting on inanimate plural; 3s–3' third singular animate on animate obviative.

An en dash (showing the position of the stem) marks a combination of a prefix (if any) and a suffix that indexes a central participant, or the full inflection. Arrows indicate morphological development or reshaping; the signs > and < indicate phonological change.

Proto-Algonquian is reconstructed with **r* for Bloomfield's **l*, **sk* and **sp* for **xk* and **xp*, and **rk* for **çk* (Goddard 1994a:205); PA **L* is indeterminately **r* or **θ*.

(1) Central suffixes (first approximation)

	m-suffixes		n-suffixes
1s,2s	*-e(hm-)		
3,0	*-w- (umlauting)		
1p	*-ehm-ena(n-)		
12	*-ehm-ena(w-)		
2p	*-ehm-wa(w-)		
	w-suffixes		n-suffixes
1s,2s,3s	*-w- (non-umlauting)		*-en-
1p	*-(w-e)na(n-)		*-ene-na(n-), *-ena-na(n-)
12	*-(w-e)na(w-)		*-ene-na(w-), *-ena-na(w-)
2p,3p	*-wa(w-)		*-ene-wa(w-), *-ena-wa(w-)

The m-suffix *-w- 3,0 (|-w|_m) causes umlaut of a preceding *a to *e; e.g., PA *|pya-| AI 'come' → PA *pye-wa 'he comes'. The *-w- formative of the w-endings (|-w|_w) is a different morpheme that does not cause umlaut (see ex. 2b).

The variations indicated in 1 summarize the major disagreements among the languages that require explanation by any reconstruction of the Proto-Algonquian paradigms and their subsequent history: (1) The pluralizers have a long form ending in *n or *w, and a short form that lacks this consonant. (2) The formative element *-ehm- may or may not be present in the first and second singular of the m-suffixes. (3) The formative element *-w- may or may not be present in the first plural w-suffixes. (4) The formative element of the n-suffixes may be *-ene- or *-ena- before the pluralizers.

The long forms of the pluralizers are used when they are followed by one of the peripheral suffixes, which mark nominal categories and appear also in noun inflection: *-a anim. sg., *-i inan. sg.; *-aki anim. pl., *-ari inan. pl.; *-ari obv. sg., *-ahi obv. pl. Pentland (1999:244, cf. 229, ex. 6a) takes *-i inan. sg. as also being used as a "default ... when the lowest participant is not a third person," and for Proulx (1984:407) this also marks the indicative of the subordinative order. It is possible that there was also

3. I take the connective vowel *e to be part of the formative element *-ehm but it is often parenthesized or omitted altogether in citations; the cluster was represented with the cover symbol *P in Goddard (1967); *Hm (i.e., *hm or *?m) was proposed in Goddard (1974:322). Pentland (1999) writes *?m (see below).

4. The connective vowel *e is sometimes written *(e) or omitted, where appropriate (see footnote 3).

a set of absentative peripheral suffixes, but outside Eastern Algonquian these are found on verbs only in an attenuated form in one Cree-Montagnais paradigm (Goddard 2003:53, 59, 102, n. 91).⁵

Absolute and objective endings

Fundamental to the organization and use of the central suffixes is the contrast between absolute and objective. This contrast was first described in the grammar of Western Abenaki by Joseph Laurent (1884), who called these categories the “indefinite” and the “finite,” respectively. An objective inflection indexes a third-person argument in addition to the argument or arguments indexed by the corresponding absolute inflection. For example, in the Delaware languages (Munsee and Unami) transitive animate (TA) direct absolute forms are used with overt nominal objects that are indefinite, while the corresponding objective forms are used with definite NP objects or to make pronominal reference to an object that is not expressed by an overt NP. (In 2, underlining marks the central suffix and the associated prefix, if any. The labeling conventions for the different kinds of pronominal inflection are shown at the left.)

(2) Munsee TA direct

(2a) absolute (m-suffix)

3s-(3') *máxkwál nihle·w*
 ‘he killed a bear or some bears (obv.)’

(2b) objective (w-suffix)

3s-3' *wǎnihlá·wál né·l máxkwál*
 ‘he killed the bear or bears (obv.)’
wǎnihlá·wál
 ‘he killed him (obv.) or them (obv.)’

In fact, all three sets of central suffixes may be used contrastively in TA direct paradigms. The Unami forms in 3 show the contrast in 2, with negative verbs, and in addition the use of the n-suffixes to indicate a definite secondary object.

5. The existence of absentative pronominal suffixes on Cree-Montagnais verbs does not mean that the distinctive set of absentative endings reconstructible for Proto-Eastern Algonquian nouns and verbs cannot be an innovation (as Pentland 1999:245 asserts), but if these endings are an Eastern innovation the source of the element PEA **ənk* that appears before the two-syllable suffixes is unknown.

- (3) Unami TA direct
- (3c) absolute (m-suffix)
 1p-(3) *takó nnihála·húmāna máxkw*
 'we (excl.) didn't kill a bear'
- (3d) objective (w-suffix)
 1p-3 s *takó nnihála·i·wāna*
 'we (excl.) didn't kill him'
 1p-3p *takó nnihála·i·wāná·nak*
 'we (excl.) didn't kill them (anim.)'
- (3e) objective secondary object (n-suffix)
 1p-3+0 *nāmi·lá·ne·n*
 'we gave it to him or them'

The absolute-objective contrast must be reconstructed for Proto-Algonquian in order to account for the widespread distribution of both types of inflections (4). The use of the absolute and objective for two contrasting transitive paradigms is found only in Eastern Algonquian, being attested as such in Unami (3ab), Munsee (2, 4ae), Mahican (4b), Western Abenaki, Loup (Gustafson 2000), and Massachusetts (Goddard 1967:95, 100; Goddard in Goddard & Bragdon 1988:511, 517-528). Both paradigms, however, also have cognates in non-Eastern languages (4), and it is particularly significant that Ojibwe (4h), Shawnee (4ij), Potawatomi, Eastern Abenaki, and Maliseet-Passamaquoddy preserve the absolute-objective contrast in transitive inanimate (TI) verbs as a contrast between objectless TI's (TI-O) and ordinary TI's (Goddard 1967:70-73, 99-102).

- (4) Comparative evidence for absolute and objective inflections
- | | TA absolute | TA objective |
|------|---|--|
| (4a) | Mun <i>nihle·w</i>
'he kills (indefinite)' | Mun <i>wānihlá·wal</i> (-al obv. sg., pl.)
'he kills him, them (definite)' |
| (4b) | EMah <i>anāw</i>
'he says to (indef.)' | EMah <i>wtānq̄n</i> 'he says to him (def.)'; ⁶
<i>wtānq̄h</i> 'he says to them (def.)' |
| (4c) | Mes <i>nese·wa</i>
'he kills him, them' | |
| (4d) | | O dials. <i>onissa·n</i> 'he kills him';
<i>onissa·ʔ</i> 'he kills them' |

	TI absolute	TI objective
(4e)	Mun <i>né·m</i> 'he sees (indef.)'	Mun <i>wǎné·mān</i> 'he sees it (def.)'; <i>wǎné·mǎnal</i> 'he sees them (def.)'
(4f)	K <i>neemwa</i> 'he sees it, them'	
(4g)		Sh <i>hone·me</i> 'he sees it'; <i>hone·mena</i> 'he sees them'
(4h)	O <i>ine·ntam</i> (TI-O) 'he thinks {so}'	O <i>otine·nta·n</i> 'he thinks of it {so}'; <i>otine·nta·nan</i> 'he thinks of them {so}'
(4i)Sh	<i>wa·kotamwa</i> (TI-O) 'he knows'	Sh <i>howa·kota</i> 'he knows it'; <i>howa·kota·na</i> 'he knows them'
(4j)Sh	<i>hošiletamwa</i> (TI-O) 'he's married'	
(4k)		Ch <i>é=vóóhta</i> 'he sees it'; <i>é=vóohtanOtse</i> 'he sees them'

Pentland (1999) reconstructs the absolute-objective contrast in Proto-Algonquian, but Proulx (1984, 1990) proposed that there were no separate objective paradigms in Proto-Algonquian and that the contrast emerged within the histories of the separate languages and subgroups. Proulx (1984:403) explained that C.F. Hockett had urged him to consider the "alternative of reconstructing fewer PA forms and explaining some forms in the daughter languages as innovations." The uncritical application of an uncontroversial general principle of economy cannot, however, overrule the fundamental principle of comparative linguistics: the presence of the same specific features in related languages requires and is explained by the hypothesis that these features were present in the shared

6. Mah *ā* < PA,PEA **e*; Mah *a* < PA,PEA **a*. The phonemicization of Mahican used here is based on the attestations of both Western Mahican (the principal dialect in the dictionary compiled by the Moravian missionary Johann Schmick [Masthay 1991]) and Eastern Mahican (Stockbridge) and differs from that proposed for Western Mahican by Pentland (1991). In Eastern Mahican a phonetic [h] was added after word-final (or at least pre-pausal) short vowels. This was consistently written as ⟨h⟩ by John Sergeant and the Native Stockbridge writers and was sometimes still recorded as [-ʔ] in the early twentieth century, but I treat it as non-phonemic because, unlike underlying *-h* (< PEA **-h*) it drops before an enclitic. This [-h] may also have existed in Western Mahican, but the German orthography of the Moravian missionaries seldom notes it (see ex. 6, below). Schmick's swung circumflex and macron over double vowels are transcribed as separate diacritics over each vowel.

proto-language, while the differences that distinguish the same languages are explained by their divergent histories. The fact that the full double system of transitive absolute and objective paradigms is attested in some languages refutes Hockett's implied criticism that the reconstruction of the double system merely assembles disparate paradigms from different languages. It is rather the case that the close similarities that the Algonquian languages exhibit in the form and pattern of the objective inflections and the similarities in the functional differences between absolute and objective forms, even in languages in which they do not contrast as alternative transitive inflections, require the reconstruction of both absolute and objective paradigms in Proto-Algonquian.

Eastern Algonquian reflexes of final vowels

The short forms of the pluralizers necessarily lacked final consonants, since a Proto-Algonquian word could only end in a vowel, but what their vowels were is left an open question by the fact that it is now generally accepted that a word-final Proto-Algonquian vowel could be either long or short (Proulx 1980a:12, 1990, Pentland 1999, 2000, Goddard 2003). Evidence from Eastern languages, however, shows that the long vowels of the pluralizers in fact remained long word-finally in Proto-Algonquian.

In Eastern Algonquian, a Proto-Algonquian word-final short vowel was regularly lost (5a), except in a short word (a two-syllable word with a short vowel in the first syllable; 5b). A word-final Proto-Algonquian long vowel became a Proto-Eastern Algonquian short vowel, and these final vowels are retained in the phonologically conservative languages (the Delaware and Abenaki languages and Mahican; 5c). Before an enclitic, a word-final Proto-Algonquian long vowel was originally retained with the Proto-Eastern Algonquian reflex that it has word-medially (5d), though the resulting alternations in word-final shape have largely been eliminated.

(5) Treatment of final vowels in Eastern Algonquian

(5a) Proto-Algonquian short vowel

- i) Un *lānu* 'man' < PEA **ərənəw* < PA **erenyiwa*
- ii) EAb *nsəm* 'my daughter-in-law' < PA **ne?θemya*

(5b) Proto-Algonquian short vowel in short word

- i) Del *wá*, EAb *owa* 'this (anim.)' < PEA **əwa* < PA **ewa*
(Goddard 2003:53-6)

- ii) WMah *awa* 'he says {so}' < PEA **awa* < PA **ewa*
(Pentland 1991:23, 26)
- (5c) Proto-Algonquian long vowel
- i) PA **kepya* 'you (sg.) come' > Old Ott *kīpa* (cf. ⟨nīpa⟩ 1s);
> PEA **kəpa* > Caniba EAb *kəpa* (⟨keba⟩),⁷ SUn *kpá*
- ii) PA *-*a* anim. sg. absentative:
- α) Un *lānuwā* 'man (abs.)' < PEA **arənawā* < PA ***erenyiw-a*.
β) EAb *nsəmə* 'my daughter-in-law (abs.)' < PEA **nəhxəmə*
< PA ***neʔθemy-a*.
γ) PA **eyā* 'yonder (anim. sg.)' > PEA **əyā* >
EAb *iyā* 'yonder (anim. sg.)' (Goddard 2003:48)
(cf. EC *niyā* ← PA **eni* 'that (inan.)' + PA **eyā*)
δ) PA **eyā:kā* 'yonder (anim. sg. [other or further?] abs.)' >
EAb *iyàkā* 'yonder (anim. sg. abs.)'⁸
- iii) PA **keʔteLa* 'truly, really, seriously' (> Mes *ke·htena*, Men
keʔten, Ill *ki·htira*) > PEA **ke·htəra* > Un *kéhəla*, Mun *kéhla*,
Mah *kahna*, EAb *kəhəla*, Mic *ketl*⁹
- (5d) Proto-Algonquian long vowel before enclitic
- i) PA **eyā* 'yonder (anim. sg.)' (5c.iiy):
Pass *yət* 'yonder (anim. sg.)'¹⁰ < PEA **əyā=ta*
(with enclitic PEA *=*ta* FOC)
- ii) PA **keʔteLa* 'true, truly' (5c.iii):
α) Mun *kéhla=č* 'that will be fine'¹¹ < PEA **ke·htəra=č*
(with enclitic PEA *=*č* FUT)
β) Mah *kahnə=ta=č* 'certainly (fut.)'¹²
(with enclitics PEA *=*ta* FOC and PEA *=*č* FUT)

There are some forms in Eastern languages that might be interpreted as showing that word-final long vowels were retained, but closer examination makes it likely that these are secondary developments. One of the

7. Caniba is the Kennebec River dialect of Eastern Abenaki represented in Râle (1833) and Aubery (1756).

8. EAb *a* < PA **a* (and PA *-*a*); EAb *α* < unshortened PA **a*.

9. In the Eastern languages from Abenaki south the **t* was lost by a minor sound law (probably in the environment PEA **h_ər* when this was flanked by metrically strong-syllables); in Mahican and Delaware this new **hər* and inherited **hər* fell together with **hr* under the same metrical conditions (Goddard 1982:35).

10. Pass *a* < PA **a*.

11. Attested as ⟨gä⁵-lātč⟩ (John Armstrong in Hewitt 1896).

12. Attested as ⟨gahanāntāzh m'poō⟩ 'he shall certainly die' (Indian brother from Shekomeko in Masthay 1980:24).

three or four dialects represented in Jean-Claude Mathevet's Loup materials (Day 1975) appears to retain final PA **-a* (as /a/), but this is shown to be a recent analogical restoration by the fact that other Loup dialects agree with other Eastern languages in lacking it. A similar innovation is found in some forms recorded from the last semi-speakers of Mahican and in one suffix in the speech of one speaker of Unami (Goddard 1979a:126). Proulx (1980a:14) argues that WAb *-a* from PA **-e* shows that the shortening of final vowels was later than the shift of PA **e* to "Pre-Abenaki" **a*, but in fact phonemic pre-WAb **e* (whether putatively long or short phonetically) shifted to WAb *a* in all environments.

Word-final consonant loss

The significance of the Eastern Algonquian reflexes of final vowels (5) becomes clear when the evidence for the loss of final consonants is considered.

Proto-Algonquian did not allow consonants before a word-boundary (except that some monosyllabic preverbs ended in **-h*), and a number of alternations attest an old phonological rule of word-final consonant loss. This is found, for example, in the noun PA **eškwa·nte·mi* 'door' (stem **eškwa·nte·m-*, **-i* inan. sg.) when used as a particle with a locative function (6a), and in particles made from bare initials, without the particle final PA **-i* that is found on longer doublets (6b).

- (6) Evidence for loss of pre-PA **-C*
- (6a) pre-PA **eškwa·nte·m* > PA **eškwa·nte* 'at the door'
 > Mun *əskwá·nte*, WMah *sk^wqta* ((*squáta*))
 (cf. Mes *kepiškwa·te* 'in the doorway', O *či·kiškwa·nt* 'by a door')
- (6b) pre-PA **ke·?teLa·m* > PA **ke·?teLa* 'truly' (5c.iii)
 (cf. K *kehtenaami* 'really, my!', Ill *ki·htira·mi* 'truly, seriously', Mic *ketlamsəta* 'I believe in him'); [with initial reduplication]
 Mes *kekye·htena·mi* PV 'seriously', *kekye·htena·mehtawe·wa* 'he takes seriously what the other says'.

Word-final long vowels are reconstructed in 6ab because the retention of the final vowels in Eastern languages indicates that they were long in Proto-Algonquian (5). These reconstructions differ from earlier assumptions. Goddard (1967:69, 84), Proulx (1982:402), and (in his most recent study) Pentland (1999:254-255) all state explicitly that when a final con-

sonant was lost in Proto-Algonquian (or a final -CV; see below) a resulting word-final long vowel was shortened. Goddard assumed final vowel shortening because Bloomfield (1946:93) said that all Proto-Algonquian words ended in a short vowel and that long vowels were shortened word-finally. The only evidence for the shortening of secondary final vowels that Proulx cites is the Cree cognate of the Meskwaki word in 6, which Bloomfield (1984:88) gives as C *kipiskwa* and *kipiskwa·hc* 'in the doorway' (ostensibly labeled as from Star-Blanket Reserve but apparently not otherwise attested in Plains Cree); cf. East Cree *čipiškwa·hč* 'at the doorway'. Cree would not have lost PA *-e· phonologically, but it does eliminate the particle final PA *-e· in locational and enumerative particles: C *ata·mipe·k* 'underwater' (if this had PA *-kwe· not *-ki [Bloomfield 1946:117]; cf. EMah *anqmpāk^wa* <unnaumpauquh> 'underwater', EAb *aláməpek^we* 'along the bottom of a body of water'); C *ci·kapaḥk* 'along the eaves of the tent' (cf. Mes *či·kapaḥkwe* 'against the outside wall of the house'); C *ni·swa·pisk* 'two dollars' (cf. Mun *ni·ša·póxkə* 'two hundred'); C *ni·sonisk* 'two fathoms' < *'two arms' (cf. EAb *nísinske* 'twenty' < *'two (sets of) hands'). Evidently the morphological elimination of *-e· PF affected the particle for 'in the doorway', in which the final *-e· was originally part of a noun stem. In any event, the word in Munsee and Mahican (6a) proves that the proto-language had the expected PA *-e·.

Proulx (1982:402-405, cf. Proulx 1980a:4) and Pentland (1999:254-258) account for final-consonant loss with a phonological rule that deletes a word-final sequence of nasal or semivowel (Pentland: "nonglottalized sonorant") plus short vowel in words of more than three (Proulx) or four (Pentland) syllables. Pentland makes this a synchronic rule within the proto-language, while Proulx makes it a diachronic sound law that affected Pre-Proto-Algonquian. Specifying the length of the words affected presents problems, and both scholars assume analogical patch-ups; note that the words in 6 would have been too short to be produced by Pentland's rule of -CV apocope. In actuality, however, the proposed rules of -CV loss would explain nothing that is not accounted for by a rule of -C loss, since the short vowel assumed in the other accounts to be originally present following what would later, on all accounts, be the word-final short pluralizers (Pentland's "default" use of *-i inan. sg.; Proulx's *-i 'indicative') is neither morphologically nor phonologically necessary. Conversely, wherever the assumed lost final vowel can be identified mor-

phologically with a suffix actually used in any of the languages in the independent indicative, there is no obstacle to assuming that the vowel was retained overtly in the proto-language.

In any event, any of the proposed rules of apocope will account for the short forms of the central-suffix pluralizers as the regular word-final allomorphs of the long forms. Nothing conflicts with the Eastern evidence that the long vowels would have been retained (5c, 6; Pentland 1991:22, 26 [§§65, 101]), and the Proto-Algonquian shapes were as in 7.

(7) Word-final treatment of pluralizers

	Pre-PA	PA
1p	*- <i>ena·n</i> >	*- <i>ena·</i>
12	*- <i>enaw</i> >	*- <i>ena</i>
2p	*- <i>wa·w</i> >	*- <i>wa·</i>

The short and long forms of the pluralizers are both attested in all three sets of central suffixes (1), but when the evidence for final-consonant loss (7) is set beside the morphology of the absolute and objective (2, 3, 4) a clear pattern in the distribution of the two variants is seen. Before the overt peripheral suffixes of the objective endings, only long pluralizers are found: a peripheral suffix always selects a long pluralizer. If a language has both forms of a pluralizer word-finally, the short form is found in absolute endings: the absence of a peripheral suffix selects a short pluralizer.¹³ The comparative evidence shows that the m-suffixes were originally absolute. They had short pluralizers because they had no peripheral suffix (Goddard 1967:94; Pentland 1999:258; Proulx 1990:135), and they had no peripheral suffix because they were used in the intransitive, transitive absolute, and transitive you-and-me forms, that is, precisely in the endings that do not use a peripheral suffix to specify an additional argument. The w-suffixes and n-suffixes originally made objective forms and had long pluralizers that were followed by peripheral suffixes; the peripheral suffix added a reference to a specified or definite third person (Goddard 1967:94; cf. Pentland 1999:259-260).¹⁴ They were thus found only in transitive objective endings, which marked definite primary or second-

13. Perhaps the only exception is Old Algonquin /-na·na·n/ 1p,12, an n-suffix with a long pluralizer that cannot be followed by a peripheral suffix; but this is used in otherwise objective paradigms, and, as the suffix cannot be reconstructed to Proto-Algonquian with a word-final consonant, this restriction must be an innovation.

ary objects (or inverse subjects). This correlation between the allomorphs of the pluralizers and the morphological categories in which they appear is not explained by Pentland and Proulx's description of the word-final apocope as a purely phonological rule of final syllable loss applying equally to all three sets of suffixes. On their hypothesis, the explanation of the functional correlation of the allomorphs must be relegated to unstated rules of analogy that repair the effects of their assumed phonological rule, but the admitted need for these repairs leaves unclear just what the phonological rule is required to explain in the first place.

The long forms of the pluralizers appear also in possessed nouns, which had peripheral suffixes marking the nominal category of the noun (Pentland 1999:227-228), but the short forms appear in the emphatic pronoun (8). This was originally a dependent (obligatorily possessed) noun **-i·raw* 'body', but evidently one of a type that did not take a peripheral suffix, as shown by the final-consonant loss in the singular forms.¹⁵

(8) Emphatic pronoun (with short pluralizers)

	pre-PA	PA	Old Illinois (Râle 1908) ¹⁶
1s	<i>*ni·raw ></i>	<i>*ni·ra ></i>	<i>ni·ra</i> (cf. Mes <i>ni·na</i> , Sh <i>ni·la</i>)
1p	<i>*ni·raw·ena·n ></i>	<i>*ni·ro·na ></i>	<i>ni·ro·na</i> (cf. Del <i>ni·ló·na</i>)
12	<i>*ki·raw·enaw ></i>	<i>*ki·ro·na ></i>	<i>ki·ro·na</i>
2p	<i>*ki·raw·wa·w ></i>	<i>*ki·rawa· ></i>	<i>ki·rawa</i> (cf. Sh <i>ki·lawa</i>)

The emphatic pronoun confirms the evidence from particles like the one in 6a that at an earlier stage of Algonquian at least some nouns could be used without any peripheral suffix.¹⁷

14. Pentland's proposed apocope of resonant-plus-vowel sequences replaces a pluralizer followed by a monosyllabic peripheral suffix with the short form of the pluralizer alone, but the underlying or etymological form in such cases is taken to have the full form of both suffixes.

15. The corresponding medial was PA **-raw-*: C *kinoyawe·w*, Betsiamites Mont [tsənəl·wew] 'he has a long body' (< **kenw-* 'long'); Mes *na·minawe* 'inside the body' (< **aθa·m-* 'inside'); O *oškinawe* 'adolescent boy', Sh *škilawe·θi·θa* 'boy' (< **wešk-* 'young').

16. For a collection of the pronominal forms found in Râle's prayer book from the 1690's I am indebted to David Costa (p.c. 2006). The identification of the writer as Sébastien Râle is based on my comparison of the handwriting with that in the manuscript of Râle's (1833) dictionary of Eastern Abenaki.

Contraction

The first plural forms of the emphatic pronoun (8) illustrate the reconstruction of contraction in the proto-language. The contractions that are germane here delete a post-vocalic semivowel and a following non-final *e and lengthen the preceding vowel, with or without a shift of quality. The different treatments of some sequences subject to contraction are shown in 9.

(9) Treatment of some PA *a(·)we and *aye sequences

	Underlying	Contracted	Recontracted	Decontracted
*aw	* Caw-eC	*Co·C, *Ca·C	*Ca·C	*CaweC
*a·w	* Ca·w-eC	*Co·C	*Ca·C	*Ca·weC
*ay	* Cay-eC	*Ce·C	*Ca·C	*CayeC

In some morphological or phonological environments the underlying sequences were not contracted and the sequences given as decontracted would have been the original surface-phonemic shapes.

It has been customary to reconstruct Proto-Algonquian forms without contraction (Haas 1967, Hewson 1993:vi, Pentland 1991:25, Proulx 1980a:3, 1980b:289-292), but in a pioneering paper on comparative Algonquian grammar Truman Michelson (1920) showed that at least some contraction is old. His evidence is summarized in 10, with reconstructions supplied and a slightly expanded listing of the languages that attest each pattern.

(10) Summary of evidence for the contraction of PA *|aw-e|

(10a) PA *|ke-meθkaw-ekwa| 'he finds you (sg.)' → PA *kemeθka·kwa
(> Mes, C, Men, O, Sh, Ill, Del, Mah, Mass, Ab, Mal-Pass)

(10b) PA *|ke-meθkaw-eθe| 'I find you (sg.)' → PA *kemeθko·θe
(> Mes, Men, O, Sh, Ill, Virginia Alg., Del, Ab, Mal-Pass)

To use contemporary terminology, the data in 10 show that contraction must be reconstructed in the proto-language as already morphologized. This conclusion was supported by Bloomfield (1946:92), extended by Goddard (1981:275-276, 1983:368-373, 2001:204-226), and concurred in

17. The Illinois paradigm in 8 appears to be archaic, with distinct phonologically regular treatments in the syllable preceding the two different pronominal suffixes; other languages have paradigmatic leveling in one direction or the other (e.g., Del *ki·ló·wa* 2p, Sh *ni·lawe* 1p) or other innovations.

by Pentland (1999:250-251). The agreement among the languages means that it is a misrepresentation of Proto-Algonquian to reconstruct its words and elements in underlying form with the contraction undone. It is the task of the comparatist to determine what the contraction was in each case and what its subsequent history was in the languages.

If contraction produces a shift of vowel quality, there is often recontraction with the vowel quality retained. For example, contraction of PA **awe* to **o* was replaced by contraction to long |*a*| in Cree and Mahican

(11) Recontraction of PA **o* from *|*aw-e*| in Cree and Mahican

(11a) C *kimiskātin* 'I find you (sg.)' (stem |*miskaw-*|)

(11b) EMah *knāhtamān* 'I help you (sg.)' (Michelson ⟨*knōtamā'n*⟩)
(stem |*nahtamaw-*|)¹⁸

Example 11a shows that PA **o* has been replaced by C *a* as the synchronic contraction of C |*aw-e*|. In 11b PA **o* has been replaced by Mah *a* (normally the reflex of PA **e*) as the contraction of Mah |*aw-ə*|. That the reconstructions in 11 are secondary is shown by the comparative facts (10) and by the fact that ordinary *a* has different Proto-Algonquian sources in these two languages.

Contraction may also be abandoned by decontraction, the generalization of the uncontracted shape of the affected element.

(12) Decontraction (as if uncontracted PA *|*aw-e*|)

(12a) Mass *katānānāmawānān* (⟨*kutinnu^hmauunnun*⟩) 'I give it to you'

(12b) Ch *né=néhova* 'he chases you' (as if PA **keno·hsaw-ekwa*)
(cf. Ch *né=néhóóʔe* 'they chase you' < PA **keno·hsa·ko·ki*)¹⁹

(12c) Ch *né=néhovAtse* 'I chase you' (as if PA **keno·hsaw-eθe*)

Examples of decontraction in modern Meskwaki are given in Goddard (2001:196).

18. Other transcriptions by Michelson and Morris Swadesh support this phonemicization; there is no evidence that the recontracted vowel in this or other forms was Mah *a* (the normal reflex of PA **a*), as given by Pentland (1990:25, §84).

19. See Goddard (2000:116-117). In 11b Ch *-óóʔe* (underlying |*-óé*|) is regular from PA **-a·ko·ki*. The pronominal prefixes are rebuilt in Cheyenne and are here written as proclitics (Goddard 2000:95-96).

The old contraction of PA **ay* is PA **e*, which is found in Eastern Algonquian (e.g. Eastern Abenaki, Munsee, Unami) and Miami-Illinois, and in relics elsewhere (13).

(13) Contraction of PA *|*ay-e*| to PA **e*.

(13a) PA *|*apinay-*| ‘sitting (and sleeping) platform’ + *|*-enki*| loc. →
 PA *|*apinay-enki*| → PA **apine·nki* ‘on the platform’:
 Mun *āpí·nay* ‘bed’, *āpí·ne·nk* ‘on the bed’
 Miami (*a*)*pinayi* ‘bed’, (*a*)*pine·nki* ‘in bed’ (Costa 2003:186-187)

(13b) PA *|*ahθay-*| ‘skin’ + *|*-ehs*| dim. →
 PA *|*ahθay-ehs-i*| → PA **ahθe·hsi* ‘skin, hide (dim.)’:
 Un *xé·s* ‘skin, hide’ (cf. Mun *xáy* ‘skin, hide’)
 EAb *nàtahsehs* ‘my old robe’
 (→ *nàtahse* ‘my robe’; Caniba EAb *sse* ‘deerhide’)
 Mes *ase·ha* ‘piece of buckskin’ (*asaya* ‘skin of smaller animal’)
 (Mes *-h* dim. ← **-s*)

(13c) PA *|*ne-*| 1 + |*či·pay-*| ‘corpse’ + PA *|*-em*| possessed theme →
 PA *|*ne·či·pay-em-a*| → PA **neči·pe·ma* ‘my dead relative’:
 Ill *niči·pe·ma*
 (cf. C *nite·m* ‘my dog’ ← *|*net-ay-em-a*|, beside Mes *netaya*)

(13d) PA *|*ahθay-*| ‘skin’ + PA *|*-ehke-*| AI ‘make’ →
 PA *|*ahθay-ehke-*| AI → PA **ahθe·hke-* AI ‘tan hides’:
 Mes *ase·hke·wa* ‘she tans hides’ (← Mes *asay-a*, *asay-i* ‘hide’)
 O *asse·kke* ‘she tans hides’ (no underlying noun)
 Ill *ahse·hki-* ‘tan hides’ (<nitasseki> 1s; no underlying noun)

Other languages show recontraction of PA *|*ay-e*|, with the reflex of PA **a* replacing the original PA **e* across active morpheme boundaries.

(14) Recontraction: replacement of PA **e* from *|*ay-e*|

(14a) Mes *apina·ki* ‘on the (family) sitting place’ (cf. 13a)

(14b) Mes *apahkwa·hke·wa* ‘she makes reed mats’ (cf. 13d)
 (*apahkwaya* ‘cattail reed; cattail-reed mat’)

(14c) C *nata·hk* ‘on my belly’ (*natay* ‘my belly’) (cf. 13a)

(14d) O *apina·ss* ‘the place in a lodge or house allotted to a family’²⁰ (cf. 13b)

20. The gloss in Baraga (1853:5) shows that the word is only formally diminutive.

- (14e) Ch *hoestóva* ‘on the dress’ ← pre-Ch **hoestó* + Ch |-vá| loc.
 (pre-Ch **hoestó* as if < PA ***akota:nki* ‘on the dress’ ←
 PA *|ako-tay-| ‘dress’ + *|-enki| loc. [Goddard 2000:91])²¹

Decontraction of PA **e*, as if restoring the underlying PA *|ay-e|, is also found (15).

- (15) Decontraction, as if uncontracted PA *|ay-e|
 (15f) Mes *opayeki* ‘on his lap’ (*nepaya* ‘my thigh, thighbone’) (cf. 13a)
 (15g) Men *oce:payemowawan* ‘their dead relative(s)’ (cf. 13c)
 (15h) O *ninči:payim* ‘my corpse’ (cf. 13c)

THE PRONOMINAL PLURALIZERS

Previous reconstructions

The pluralizers as reconstructed by myself (Goddard 1967:94, 1974), Pentland (1999:258-260), and Proulx (1990:135-137) are in 16; the labels of the sets are mine. The w-suffixes and n-suffixes are given together with the peripheral suffix for a singular object (16ab), inverse subject (16abc), or “indicative” (16c). Double underlines mark reconstructions that are not directly reflected in any language; an ending with a single underline has one or more phonetically possible but otherwise implausible reflexes.

- (16) Reconstructions of the pluralizers
 (16a) Goddard (1967, 1974)

	m-suffixes	w-suffixes	n-suffixes
		(with singular object)	
1s,2s	*-Ø	*-w-a	*-(e)n-i
1p	*-Hmena	*-(e)na·n-a	*-(e)na·n-i
12	*-Hmena	*-(e)naw-a	*-(e)naw-i
2p	*-Hmwa	*-wa·w-a	*- <u>wa·w-i</u>
3p		*-wa·w-ali	*- <u>wa·w-i</u>

21. The vowel shortening in the second syllable is not regular; perhaps the word has been influenced by Ch |hoemah-| ‘blanket, robe’.

(16b) Pentland (1999)

	m-suffixes	w-suffixes	n-suffixes
		(with singular object)	
1s,2s	*-(e)?mi	*-Ø	*-(e)na → *-(e)n-i
1p	*-(e)?mena	*-(e)na	*-(e)ne·na
12	*-(e)?mena	*-(e)na	*-(e)ne·na
2p	*-(e)?mwa	*-wa	*-(e)nawa
3p		*-wa·w-ali	*-(e)nawa

(16c) Proulx (1990)

	m-suffixes	w-suffixes ²²	n-suffixes
		(sg. subject)	(no object)
1s,2s	*-Ø	*-Ø	*-n-i
1p	*-Hmena	*-ena·n-a	*- <u>nayena</u>
12	*-Hmena	*-enaw-a	*- <u>nayenaw-i</u>
2p	*-Hmwa	*-ewa·w-a	*- <u>nayewa·w-i</u>
3p			*- <u>nayewa·w-i</u>

In addition to the fact that all these reconstructions posit proto-forms that have no direct reflex in any language, they all share one fundamental flaw: They have the short forms of the pluralizers with word-final short vowels, a starting point that makes it impossible to account for the reflexes in Eastern Algonquian without ad hoc assumptions. Word-final PA **-a* in the pluralizers would be lost in all Eastern languages (5a), but the phonologically conservative Eastern languages have a word-final *-a* in the pluralizers that continue PEA **-əna* 1p and PEA **-wa* 2p,3p, which must be the reflex of PA **-a* (5c).

The problem of reconciling the Eastern Algonquian word-final pluralizers with Proto-Algonquian reconstructions has been dealt with variously. Goddard (1980:151; cf. Goddard 1979b:98-99) conceded that the word-final forms of the pluralizers in Eastern Algonquian “cannot be regular phonological developments from either the PA objective or absolute. A complex blending and restructuring seems to be indicated, which is ... partially opaque in its details.” Proulx (1982:402) proposed that pre-Proto-Algonquian lost word-final sequences of nasal or semivowel plus short vowel, but that these lost syllables “have generally been restored analogically,” except in the case of the endings PA **-na* 1p and *-Ø* 1s,2s (< **-Hm*) and in particles like the one in 6; “it is sometimes hard to deter-

22. Only in the inverse with first or second person object.

mine exactly which restorations date back to PA, since parallel restorations in the daughter languages are common and there are also secondary losses of restored final syllables." Specifically, on Proulx's (1980b:296) account restored word-final PA **-w-i* was "later" lost again "in Arapaho, Cheyenne, Ojibwe, Potawatomi, Shawnee, Miami, and all the Eastern languages." For Pentland (1999:254-255) "final syllables beginning with a nonglottalized²³ sonorant were lost in Proto-Algonquian, except in words of four syllables or less, and a preceding long vowel became short.... Many of the daughter languages have restored the long vowels and final consonants" from other forms. It is obvious that none of these suggestions explains the developments in Eastern Algonquian or even lays out the specific changes that the Eastern languages are assumed to have undergone.

If, in contrast to the reconstructions in 16, the short forms of the pluralizers are taken to have retained the same long vowels that the long forms have (as in 7), the conservative Eastern Algonquian reflexes are accounted for by the regular sound change illustrated in 5c with no further special assumptions: PA **-ena* 1p > PEA **-əna* > Delaware, Abenaki, and Mahican *-əna*; PA **-wa* 2p,3p > PEA **-wa* > Munsee *-wa*, Un *-wa*, *-ə*, Caniba EAb *-a* (in *-pa* 2p), Mahican *-(w)a*.²⁴

M-suffixes (revised)

The revised reconstruction of the Proto-Algonquian m-suffixes with long vowels retained is in 17, together with their pre-Proto-Algonquian sources (before final consonant loss) and their Proto-Eastern Algonquian reflexes.

23. "Nonglottalized" because it is postulated that PA **-ari* inan. pl. (Bloomfield and Pentland: **-ali*) was affected but PA **-ari* obv. sg. (Bloomfield: **-ali*; Pentland: **-al'i*) was not. But it is more economical to take the divergent treatments of these two suffixes in Illinois and Shawnee as innovations of those languages, which do not, after all, show the same developments, than it is to invoke here the postulated series of "glottalized" consonants in the proto-language (Pentland 1999:226-227), for which there is no direct evidence.

24. The full suffixes are in 20, below.

(17) Revised reconstruction of the m-suffixes

	pre-PA	PA	PEA
1s,2s	*- <i>ehm</i> >	*-(<i>e</i>) >	-Ø
1p	*- <i>ehm-ena:n</i> >	*-(<i>e</i>) <i>hmena</i> >	*-(<i>ə</i>) <i>hməna</i>
12	*- <i>ehm-enaw</i> >	*-(<i>e</i>) <i>hmena</i> >	*-(<i>ə</i>) <i>hmən</i>
2p	*- <i>ehm-wa:w</i> >	*-(<i>e</i>) <i>hmwa</i> >	*-(<i>ə</i>) <i>hmwa</i>

The third-person suffixes are as in 1 (Bloomfield 1946:97-8). The formative *-*ehm* was lost word-finally, leaving behind the connective PA **e* after consonant stems, but it has left traces before the suffixes that mark the modes of the independent order other than the indicative (see below). Pentland (1999:258-9) reconstructs PA *-*hmi* (his *-*?mi*) in the first singular, second singular, and indefinite of the indicative, but only PA *-*hmi* X is well supported: Mes -*pi* X (all paradigms), Sh -*pi* X (m-suffixes), O -*m* X (m- and n-suffix paradigms).

The suffixes in 17 are continued with only regular phonological changes in Meskwaki-Kickapoo, Shawnee, Ojibwe-Potawatomi, and Miami-Illinois (for which see Costa 2003:271-2, 452-3) (18).²⁵

(18) M-suffixes in Meskwaki, Shawnee, Ojibwe, and Illinois

	PA	Meskwaki	Shawnee	Ojibwe	Illinois
1s,2s	*-Ø >	-Ø	-Ø	-Ø	-Ø
1p	*- <i>hmena</i> >	- <i>pena</i>	- <i>pe</i>	- <i>min</i>	- <i>mena</i> , - <i>mina</i>
12	*- <i>hmena</i> >	- <i>pena</i>	- <i>pe</i>	- <i>min</i>	- <i>mena</i> , - <i>mina</i>
2p	*- <i>hmwa</i> >	- <i>pwa</i>	- <i>pwa</i>	- <i>m</i>	- <i>mwa</i>

In Cheyenne the m-suffixes survive in their original form in the interrogative mode but are reshaped in the indicative (19);²⁶ because of the complexities of Cheyenne internal tone sandhi the suffixes are cited in underlying form (Goddard 2000:92-93).

25. The relevant sound changes affecting final vowels are the shortening of long vowels in Meskwaki (5c.iii, 6a), Shawnee, and Illinois; the loss of all vowels (and any resulting word-final postconsonantal semivowel) in Ojibwe (and Menominee; 5c.iii); and the loss of final resonant-plus-vowel syllables in Shawnee. (Certain types of short words are unaffected.)

In this and the following tables the connective vowel is omitted. Meskwaki-Kickapoo is represented by Meskwaki. Miami-Illinois is generally referred to as Illinois, the conventional cover term for the older materials, though some inflections happen to be attested only in the later, Miami sources; for the details of the documentation, see Costa (2003).

26. PA **e* > Ch *a*; PA *-*V*(·) > Ch -*e*; otherwise PA **V* > Ch |á|, |é|, |ó| (with underlying high tone).

(19) M-suffixes in Cheyenne

	dubitative	indicative	cf. conjunct
1s,2s	-Ø	-Ø	
1p	-mane-	-mé ← *-ma ×	-té ²⁷
12	-mane-	-ma < PA *-hmena	
2p	-me-	-mé ← *(me-) ×	-sé

The dubitative suffixes have the original word-final treatment; all final vowels were shortened and shifted to Ch |e|. The word-final shapes were protected by the dubitative suffix (|-hé|), which is presumably from an original enclitic. In the indicative, word-final syllable loss (which affected most -CV sequences) would have made the second plural form homophonous with the second singular, and as a consequence the first plural exclusive and second plural suffixes were rebuilt with the vowel |é| of the corresponding conjunct suffixes.

In Arapaho the independent indicative becomes the non-affirmative (or “irrealis”) mode, used with preverbs for negative, interrogative, future imperative, and narrative past. The pluralizers are refashioned in a unique way: the first plural exclusive and the second plural have a suffix *-be* and the inclusive has *-n* in the TA (direct, inverse, and reflexive), *-noo* in the AI, and *-Ø* in the TI (Cowell & Moss in Moss 2005:447-448). The suffix Ar *-be*, GV *-ph* 1p,2p reflects AGV *-*meh*, which can be explained as reshaped from expected AGV *-*men* (< PA *-*hmena* 1p) as part of a replacement of expected *-*n* by *-*h* in a number of morphemes with plural reference, ultimately by contamination from the replacement of expected AGV *-*on* inan. pl. (< PA *-*ari*) by AGV *-*oh* under the influence of AGV *-*oh* obv. pl. (< PA *-*ahi*) (Goddard 1998:196-199).

In Cree the entire set of m-suffixes is lost and its functions taken over by n-suffixes; Micmac abandons the independent indicative completely. In the other languages not included in 18 and 19 these suffixes have undergone morphological changes that are largely transparent and typologically unremarkable. Most of these changes are either of two common types, paradigmatic leveling and paradigmatic analogy. In paradigmatic leveling, a form influences or replaces another form in the same paradigm that marks a different category. For example, in the majority of the lan-

27. The multiplication sign (×) means ‘contaminated with’; it is adopted from its use to mean ‘crossed with’ in biological systematics.

guages this type of leveling eliminates the contrast between the exclusive and inclusive suffixes by replacing one with the other. Paradigmatic analogy operates between suffixes that mark the same category in different paradigms. For example, a suffix in one of the suffix sets is often influenced or replaced by the corresponding suffix in another set or sets (19).

M-suffixes in Eastern Algonquian

The Eastern languages that generally retain final vowels give a good idea of the Proto-Eastern Algonquian shape of the m-suffix pluralizers for the first plural exclusive and the second plural. The Proto-Algonquian long vowels are retained as word-final short vowels (cf. 5c).

(20) M-suffixes in conservative Eastern languages

	PEA	E. Abenaki	W. Abenaki	E. Mahican
1s,2s	-Ø	-Ø	-Ø	-Ø
1p	*-hmāna >	-pāna	-pāna	-hna
12	*-hmān	-pāna ← 1p	-pāna ← 1p	-hna ← 1p
2p	*-hmwa >	-pa (Caniba)	-pa	-hma
	Munsee	Unami		
1s,2s	-Ø (-m in dialects)	-Ø		
1p	-hna	-'hāna ~ -hūmāna		
12	-hna ← 1p	-'hāna ~ -hūmāna ← 1p		
2p	-hmwa	-'hāmō ~ -hūmō		

The loss of **m* in the first plural suffixes of Munsee, Mahican, and (after a metrically strong syllable) Southern Unami is by a minor but exceptionless sound law; a variety of Northern Unami retained this *m*. The inclusive m-suffix is not directly reflected in any Eastern language, being usually replaced by the exclusive suffix (indicated by “← 1p,” meaning ‘from or influenced by the exclusive’). In Western Mahican *-naw* was introduced as the word-final inclusive pluralizer in all endings; this is from the inherited shape of the pluralizer before further suffixes (which is indicated in the tables below by “← s,” to be read as ‘from or influenced by the suffixed allomorph’): EMah *kwāspihna* (<kwauspehnuh>) ‘we (inc.) prepare’ (cf. EMah *ntānītaḥqhna* <ndinnetauhohnuh> ‘we (exc.) think {so}’); WMah *ktāhnaw* (<Ktahānāu>) ‘we (inc.) go {somewhere}’ (cf. WMah *kpāhtamawāsnawah* <kpach — nawa> ‘our (inc.) God (obv.)’.²⁸ The different inclusive suffixes in the two Mahican dialects can reasonably be seen as divergent replacements of the expected inherited suffix

*-n 12, which would have been undercharacterized. (There is direct support for PEA *-n 12 in the n-suffix paradigm of the Delaware languages; see below.)

Where the Proto-Algonquian final long vowels were followed by an Eastern Algonquian enclitic instead of a phonological word boundary their vowel length was preserved (cf. 5d). The resulting alternation between short and long vowels survived as an active part of the synchronic sentence sandhi of Mahican and archaic varieties of Munsee. For example, before an enclitic PA *-(e)hmwa 2p gives PEA *-(ə)hmwa; EMah *knāwihmaq=č* 'you (pl.) will see me' (← *knāwihma* 'you (pl.) see me' + =č FUT);²⁹ Mun *kāme·me·lantíhmwa=č* 'you will race each other'³⁰ (← *kā-hmwa* 2p + =č FUT).

Among the Eastern languages that lose final vowels (21), there is one dialect of Loup (here called Loup 1) that retains the plural suffixes with their expected shape. In the other languages the second plural suffix is rebuilt, and in a second dialect of Loup (here called Loup 2) both pluralizers are reshaped.

(21) M-suffixes in other Eastern languages

	Maliseet-Pass.	Massachusett	Loup 1	Loup 2
1s,2s	-Ø	-Ø, -m	-Ø	-Ø
1p	-pən	-mən	-mən	-mənq ← s
12	-pən	-mən	-mən	-mənq ← 1p
2p	-pa ← w,n	-m(w)əw ← -əw 2p	-m	-mq ← s

Maliseet-Passamaquoddy has *-pa* 2p for expected *-p (< PEA *-hmwa 2p), with *-a* (< PEA *a) added from the corresponding w-suffix Mal-Pass *-wa* and n-suffix Mal-Pass *-nəya* (as indicated in 21 by "← w,n"), where it was not original either (see below). The same innovation is found in the Penobscot dialect of Eastern Abenaki, replacing *-pa* (as in Caniba [20]) by *-pa* (with *a* < PEA *a); Penobscot was the dialect on the

28. Western Mahican has lost the use of plural peripheral suffixes after the pluralizers (except in a few sub-dialectal or archaic forms), but these are retained in Eastern Mahican, with the contraction typical of that dialect.

29. The attestations are ⟨knāūwechmā⟩ (with the future enclitic on the preceding word) and ⟨knāūwēchmāhtsch⟩ "so werdet ihr mich sehen" (Masthay 1980:35). In the orthography of the Moravians, ⟨áh⟩ indicates a long vowel (nasalization not marked) and ⟨-à⟩ a word-final short vowel.

30. Attested as ⟨kmā-mā-lun-dī'-mwātč⟩ (John Armstrong in Hewitt 1896).

eastern edge of Eastern Abenaki territory, and thus in contact with Passamaquoddy. In Massachusetts the formative element *-m* is extended to the first and second singular forms of stems ending in a long vowel but not those in a consonant or a short vowel. It is optionally used in these forms of the TA direct absolute (in one repeatedly used form in one Native document) and TI(2) absolute, but it is not used in the TA passive after the suffix $[-\text{ət}^{\text{y}}\text{ā}]$, which otherwise takes the AI suffixes (Goddard in Goddard & Bragdon 1988:518, 522, 524). This incomplete and unmotivated distribution makes it unlikely that singular *-m* is a retention from the suffix PA $*\text{-}^{\text{?}}\text{mi}$ proposed by Pentland (1999). It more likely arose by paradigmatic leveling to preserve the shape of the full stem, much like the recent restoration of the final long vowels of stems in Ojibwe (Goddard 1967:91, n. 64), which also does not extend to short vowels. This innovation would have made second plural forms with expected pre-Mass $*\text{-}m$ 2p (< PEA $*\text{-}hmwa$; cf. Loup 1 in 21) homophonous with the second singular, and to repair this homophony the suffix $-\text{əw}$ 2p was added from the possessed-noun and TA inverse paradigms (cf. Mass *kīmatəw* <kemmattoo> 'your (pl.) brother').³¹ The *-m* in the first and second singular after vowel-final stems and themes in some Munsee dialects may be a modern borrowing from New England refugees in Munsee communities; this would explain why it is not found in intervening languages, has a similar restricted distribution in Munsee, and has *m* rather than *hm*, which is otherwise the Munsee reflex of PEA $*hm$.³²

The Loup forms have been assembled by Gustafson (2000:67-75), who sorts the variants and proposes phonemic transcriptions. I assume that the short and long forms of the suffixes belong to different dialects. The suffixes that have not been reshaped (here assigned to Loup 1) are those most similar to Massachusetts; perhaps Loup 1 was the dialect of the Nipmucks, who were the western neighbors of the Massachusetts and

31. John Eliot's $-\langle m\text{w}\text{c}\rangle$ 2p may have a purely orthographic abstract $\langle w\rangle$ taken from suffixed forms like $-\langle m\text{w}\text{q}\rangle$ 2p pret. ($-\langle m\text{w}\text{p}\rangle$); the sequence $|\text{Cw-əw}|$ is otherwise reduced to Cəw .

32. Another grammatical borrowing in Munsee from southern New England is the singular absentative noun suffixes; the $-\text{ay-}$ in Mun $-\text{aya}$ (e.g., Mun *nóxwaya* 'my late father') is not found in Unami (5c) or (at least for animate nouns) in Mahican and must have diffused from a Southern New England Algonquian inflection like Mass $-\text{ay}$ ($\langle -i\rangle$) abs. anim., inan. sg. (e.g., Mass *nōhšay* <nooshi> 'my late father' [Goddard in Goddard & Bragdon 1988:495]).

spoke a language with *l*. The first and second plural suffixes here assigned to Loup 2 have all added *-q* from the allomorphs used before further suffixes (or, perhaps, enclitics), a pattern found in no other language; perhaps Loup 2 was a dialect from the Connecticut River Valley. The variation within Loup points to Loup 2 *-mənq* 1p,12 and *-mq* 2p being the innovations of a Loup dialect and not directly inherited without final vowel shortening from PA **-hmena* 1p, **-hmwa* 2p; other Loup forms ending in unexpected *-q* (Goddard 2003:92) may have similar histories.

M-suffixes in Menominee

Menominee is the only language that rebuilds all the suffixes with the full long forms of the pluralizers (22). The long forms were inherited in other suffix sets (e.g., w-suffix *|-wEnaw|* 1p,12 and n-suffix *|-ni·naw|* 1p,12, treated below) and appeared with contraction before modal suffixes (e.g., *|-mwa·w-Epa-h|* 2p pret.: *kepiamuapah* ‘but you (pl.) came’).

(22) Menominee m-suffixes

1s,2s	<i>-m</i> (← pl., other modes)
1p	<i> -m-Enaw </i> ← 12
12	<i> -m-Enaw- </i> (pluralizer ← other paradigms and modes)
2p	<i> -m-wa·w </i> (pluralizer ← other paradigms and modes)

Menominee is also the only language that has the formative element *-m* in all first and second singular forms of the indicative. It is likely that these two features are linked: the reshaping of the second plural suffix from expected **-m* (< PA **-hmwa*) to *|-mwa·w|* would have prevented homophony with the new second singular form. Thus neither of these features should be regarded as archaic on the basis of its existence in Menominee. The inclusive suffix Men *|-mEnaw-|* is found, with rare exceptions, only in the non-indicative modes; the indicative usually has instead a suffix *-ʔ*.³³

33. M-ʔ is also the suffix marking the predicative forms of personal and demonstrative pronouns: *eneh* ‘that (inan.)’, *eneʔ* ‘it is that’. Perhaps this predicative suffix came to be used on inclusive indicative forms when they functioned as hortatives and then spread to all uses: e.g., *kenaw-ma·ciaʔ* ‘let us set out, let’s be off’, later ‘we shall set out’ (cf. Bloomfield 1962:51).

W-suffixes (revised)

The *w*-suffixes were those originally found in the TA objective direct and inverse; they were always used with either the direct theme sign (PA **-a* th. 1) or the inverse theme sign (PA **-ekw* th. 2). The revised reconstruction with singular object (or inverse subject) is in 23. An underlying formative |*w*| occurred throughout (see the discussion below). Where its presence resulted in an underlying sequence |*w-w*| this was simplified to **w* by a regular and uncontroversial rule. This was the case before the **w* of the pluralizer for second and third person (|-*w-wa*·*w*| → **-wa*·*w*)³⁴ and when the formative **w* immediately followed the inverse theme sign PA **-ekw* (|-*ekw-w*-| → **-ekw*). Some languages may have diminutive, obviative, or negative suffixes between theme signs and pronominal suffixes, leaving the formative **w* overt in some inverse forms (Goddard 1979a:89, 175, 1994b:193; Wolfart 1996:413).

(23) Revised reconstructions of the *w*-suffixes³⁵

	PA	PEA
1s,2s	<i>*-w-a</i> >	<i>*-w</i>
3s	<i>*-w-ari</i> >	<i>*-w-ar</i>
1p	<i>*-w-ena</i> · <i>n-a</i>	<i>*-w-ena</i> ← m
12	<i>*-w-enaw-a</i>	<i>*-w-en</i> ← m
2p	<i>*-wa</i> · <i>w-a</i>	<i>*-wa</i> ← m
3p	<i>*-wa</i> · <i>w-ari</i> >	<i>*-wa</i> · <i>w-ar</i>

In Pentland's (1991:25, 1999:260) analysis and transcription the inverse theme sign is **-ek^w* and the sequence **-ek^w-w-* was reduced to PA **-ekw*, with PA **k^w* and **kw* having different properties of contraction; in the present analysis this contrast is taken to be morphophonemic (or lexicalized) and is not represented in the phonemic transcription. Pentland (1999:248-249) identifies the underlying PA **|-w|* in the third person direct absolute as PA **-w* "3RD.SUBJ" (< pre-PA glottalized **-w'*), and the PA **|-w|* in the third person inverse absolute as PA **-w* "3RD.ANIM.OBJ" (< pre-PA plain **-w*). Conversely, in the corresponding objective para-

34. The formative |*w*| was reintroduced before this suffix in Unami: Un *kənihəlāwwa* 'you (pl.) kill him' (< |kənəhlāwəwə|).

35. The Proto-Algonquian reconstruction is followed by ">" if it is regularly reflected by the Proto-Eastern Algonquian suffix and by "||" if it is not; in the latter case the pluralizers have been introduced from the *m*-suffixes (17), as indicated by the notation "← m".

digms he takes the direct endings as having PA **-w* "3RD.ANIM.OBJ" and the inverse endings as having PA **-w* "3RD.SUBJ." He reconstructs the $|-w|$ before first plural suffixes in the TA inverse but not in the TA direct (Pentland 1991:25, 1999:260). These postulated differences between direct and inverse are at odds with what is expected from the generally observed principle that direct and inverse endings differ only in theme sign. It has long been a truism of Algonquian grammar that, at least in the independent order, the pronominal suffixes do not mark subject and object but only person, while it is the theme signs that indicate the distinction between subject and object, or more precisely, as Pentland (1999:235) says in another context, the identity specifically of the object. The glosses "3RD.SUBJ" and "3RD.ANIM.OBJ." are inconsistent with this fundamental principle of the organization of Algonquian verb morphology. Pentland's analysis is linked to his reconstruction of PA **-ekowaki* for (absolute) (3')-3p and (0)-3p, which he derives from **-ekw* TA th. 2 + pre-PA **-w* (+ **-aki* anim. pl.); this contrasts with inverse objective PA **-ekwa* 3s-1s,2s, which he derives from **-ekw* + pre-PA **-w'* (+ **-a* anim. sg.). The several suffixes with the shape PA **-w* do not, however, sort out consistently according to their morphophonemic properties. The **-w* of the m-suffixes ($|-w|_m$) and the **-w* that makes initials and bases for secondary derivation from AI stems and TI themes (Goddard 1990:457) cause umlaut, while the **-w* of the w-suffixes ($|-w|_w$) and **-w* neg. do not. The treatment as **-ow* after a consonant, however, is shared by the second and fourth of these, while the first and third remain as **-w* in this environment. Furthermore, putative reflexes of PA **-ekowaki* (3')-3p, (0)-3p are found only in Menominee and Cree-Montagnais (though not for animate subjects in Menominee and Plains Cree), and in both cases the ostensible PA **-eko* in this ending is a new synchronic theme sign that is also found in the corresponding conjunct forms (Wolfart 1973:56-57, 61-62; Goddard 1974:323). PA $*|-ekw|$ and $*|-wa\cdot w|$ 2p,3p do combine as PA **-ekowa\cdot w*, but this can be explained by the very general principle (Goddard 2001:192-194) that the contraction (or pseudo-contraction) before the surface realization of **-wa\cdot w* 2p,3p almost always mimics the treatment before the first plural suffixes in the same paradigm (as in PA **-ekwena\cdot n* 3-1p), PA **Cow* being the equivalent of **Cwew* (Proulx 1990:136), whatever the best transcription may be.

W-suffixes outside Eastern Algonquian

The reflexes of the Proto-Algonquian *w*-suffixes in languages outside Eastern Algonquian are given in 24. Except where labeled otherwise, these include the peripheral suffix for a singular object or inverse subject (which may have the shape $-\emptyset$). In the languages that have no *w*-suffixes in the third person the original absolute inflection fills out the paradigm. The first and second plural suffixes in Meskwaki and Illinois and the first plural suffix in Shawnee are found only in the inverse. In the direct paradigm Illinois appears to have the original absolute inflections in all persons but to have made new objective endings for first and second person acting on third plural (Costa 2003:279, 462).³⁶ The Meskwaki direct paradigm has absolute inflections in all except the non-diminutive first and second singular, and Shawnee uses the absolute suffix in the first plural: Mes *ne-a-wa* 1s-3s, *ne-a-waki* 1s-3p, but *ne-a-pena* 1p-3; Sh *ni-a-pe* 1p-3. Meskwaki has apparently blended the old absolute and objective TA paradigms, but Shawnee more likely simply introduced the *m*-suffix *-pe* 1p,12 from the AI, in the same way that most Ojibwe dialects have replaced *-na·n* 1p,12 (which was inherited in Old Algonquin [24] and Ottawa) by *-min* 1p,12.

 (24) *W*-suffixes in non-Eastern languages

	PA	Menominee	Cree	Old Algonquin
1s,2s	*- <i>w-a</i>	- <i>w</i>	- <i>w</i>	- \emptyset
3s	*- <i>w-ari</i>	-	-	- <i>r</i>
1p	*- <i>w-ena·n-a</i>	- <i>wEnaw</i> ← 12	- <i>na·n</i>	- <i>na·n</i>
12	*- <i>w-enaw-a</i>	- <i>wEnaw</i>	- <i>naw</i>	- <i>na·n</i> ← 1p
2p	*- <i>wa·w-a</i>	- <i>wa·w</i>	- <i>wa·w</i>	- <i>wa·</i>
3p	*- <i>wa·w-ari</i>	-	-	- <i>wa·r</i>
	Meskwaki	Shawnee	Illinois	Cheyenne
1s,2s	- <i>w-a</i>	- \emptyset	- \emptyset	- \emptyset
3s	-	- <i>li</i>	-	- <i>hó</i> 3s-3'
1p	- <i>na·n-a</i>	- <i>na</i>	- <i>na</i>	- <i>né</i>
12	- <i>na·n-a</i> ← 1p	- <i>na</i>	- <i>na</i>	- <i>ne</i>
2p	- <i>wa·w-a</i>	- <i>wa</i>	- <i>wa</i>	- <i>vó</i>
3p	-	- <i>wa·li</i>	-	- <i>vo</i> 3p-3'

36. These do not seem to be based on *w*-endings but may be analogical to noun inflection.

In these endings final **-wa* was lost by sound law in Old Algonquian (as in all Ojibwe languages), and final **-wa* and **-na* were lost regularly in Shawnee, Illinois, and Cheyenne. In all the affected cases except the Illinois endings for third plural on first plural, the endings with obviative and plural peripheral suffixes were then restructured without the apocopated **w* or **n* of the central suffix: OAlg *nitipe·rima·k* 'I rule them', *otipe·rima·r* 'he rules him'; Sh *homama·li* 'he took him', *nipo·na·ki* 'I have them (anim.)', *kiwa·koma·wa·ki* 'you (pl.) know them', *nikkile·kona·ki* 'they hide us (exc.)'; Ch *ná=mévóne* 'we (exc.) eat him', *ná=mêvoneo'o* 'we (exc.) eat them (anim.)' (|-né| 1p + |-o| anim. pl. < PA **-aki*); but Ill *kiwa·pamekona·naki* 'they look at us (inc.)'. Cheyenne has |-né| 1p and |-ne| 12 for expected **|-nó|* and **|-no|* (< PA **-na·ni*, **-naw|*); the tonal contrast (reflecting the old length contrast) is preserved, but the vowel quality has been taken over from the conjunct suffix |-té| 1p,12 (cf. 19). The Cheyenne forms with obviative objects have been restructured (Goddard 2000:83, 103-104).

Except in Cree, Cheyenne, Western Mahican, and Micmac, the original exclusive or inclusive shape is generalized in the first plural by paradigmatic leveling in both the *w*-suffixes (24 and 25) and the *n*-suffixes (28 and 29, below), though the two first persons are always kept distinct by different prefixes. The Abenaki languages have the old exclusive suffix word-finally and the inclusive before another suffix (25, 28). In Shawnee the distinction would have been obliterated anyway by the word-final apocope of the endings with singular peripheral suffixes (24) and the subsequent restructuring of those with plural peripheral suffixes.

W-suffixes in Eastern Algonquian

The *w*-suffixes in the Eastern languages in 25 are given the way they appear with a singular object (or inverse subject), including any overt peripheral suffix, except where labeled otherwise.³⁷

37. The Delaware languages generalized PEA **-ar* obv. sg. (< PA **-ari*) as the obviative peripheral suffix for both singular and plural (> Mun and NUn *-al*, SUn *-a*); similarly in other categories with other vowels before the consonant. Western Mahican, Western Abenaki, Loup, and Massachusetts generalized PEA **-ah* obv. pl. (< PA **-ahi*) for both numbers, but **-h* was lost word-finally in Western Abenaki and is not indicated in the transcriptions of Loup. Final *-h* was also lost by sound law in Eastern Abenaki and Maliseet-Passamaquoddy.

(25) W-suffixes in Eastern languages

	PEA	Munsee	W. Mahican	E. Mahican
1s,2s	*-w	-w	-w	-w
3s	*-w-ar	-w-al 3s-3'	-wah 3s-3'	-n 3s-3's
1p	*-w-ena	-wāna	-wāna	-na
12	*-w-en	-wāna ← 1p	-(wə)naw ³⁸ ← s	-na ← 1p
2p	*-wa	-wa	-wa	-wa
3p	*-wa-w-ar	-wa-w-al 3p-3' (?)		-wān 3p-3's
	Massachusetts	Loup 2	W. Abenaki	Mal.-Pass.
1s,2s	-Ø	-(w-)	-Ø	-Ø
3s	-h 3s-3'	-wah 3s-3'	-Ø 3s-3'	-l 3s-3's
1p-3s	-wān	-wānq ← s	-nna	-n
1p-3p	-wānqnak	-wānqnak	-nnawak ← 12	-nnok ← 12
12-3s	-wān	-wānq ← 1p	-nna ← 1p	-n
12-3p	-wānqnak ← 1p	-wānqnak ← 1p	-nnawak	-nnok
2p-3s	-w	-wq ← s	-wq ← s	-wa ← s
3p	-q-h 3p-3'	-wqwah 3p-3'	-wq 3p-3'	-wal 3p-3's

The first set of languages in 25 (Munsee, Western Mahican, and Eastern Mahican) retained word-final Proto-Eastern Algonquian vowels and final *-w*.³⁹ The Abenaki languages retained final vowels but lost final *-w*. Massachusetts and Maliseet-Passamaquoddy lost final vowels and *-Vw* syllables. The Loup materials show various types of final syllable loss and apparent analogical restoration. One dialect of Loup (assumed to be the Loup 2 of ex. 21) restores word-final *-q* in the pluralizers and also in the first and second singular forms, where it is the direct theme sign: Mass *kəwamān* (<kəwomən>) 'you (sg.) love him', Loup *kəwamāq* (<kəwamān> 4×).⁴⁰ Another variety of Loup, apparently a third dialect, appears to have had the *w*-suffixes as in Abenaki (whether or not with double *-nn-* is uncertain): Loup 3 *kolqməsatāwq(n)na* <kəl8mi sata8anna>

38. I have found the Western Mahican suffix *[-wənaw]* only in the negative inflection *[kə-awiwənawak]* 12-3p neg. (<Aschə knachtamawawəunawək> 'we won't help them' [Masthay 1991:81]). I have found three examples of *[-naw]* in the non-negative inflection *[kə-ənaw]* 12-3s (e.g., <konsittawānau> 'we (inc.) believe in him' [Masthay 1991:40]). In the inverse inflection *[kə-əkōnaw]* 3-12 (i.e., both 3s-12 and 3p-12) the long *[ō]* most likely comes from the recontraction of an underlying *[-ək-w-ə-wənaw]*; this *[ō]* is found in the first plural inverse endings of most Eastern languages and is in some cases extended to the inflections with second and third plural objects: e.g., Un *[nə-əkōna]* 3s-1p (Goddard 1979a:174); EAb *[nə-əkōna]* 3s-1p, *[kə-əkōwa]* 3s-2p (Goddard 1967:101).

39. Munsee has essentially the endings of Proto-Delaware; Unami has only phonological changes in these, including loss of final *-w* with shortening of a preceding vowel.

'we (inc.) believe in him', *kəwaməqə(n)na* <kəamanlan'nan> 'we (inc.) love him',⁴¹ *kəwaməqə(n)nawək* <kəamanlannaək> 'we (inc.) love them (anim.)'.

Most of the Eastern languages that lost final **-w* have also lost this analogically before the peripheral suffixes, which consequently drop an underlying short vowel after *q* (compare the discussion after 24): WAb *nəwəčəqə* 'I have him', *kkisanohək* 'you (sg.) buy them (anim.)' (with underlying |*-ə-ək*|), *wwəčəqə* 'he has him, them (obv.)' ($-\emptyset < *-h$ obv. ← PEA **-ah* obv. pl.); WAb *kkəsalməkəwə* 'he loves you (pl.)', *kkəsalməkəwək* 'they love you (pl.)'; Mal-Pass *nwicohkema* 'I help him', *nwicohkemək* 'I help them', *wicohkeməl* 'he helps him (obv.)'. In Loup there is one dialect that retains *-w* before peripheral suffixes and another that follows the pattern of the Abenaki languages: Loup 2 *nəwaməqəwək* (<nəamanlanək>), Loup 3 *nəwaməqək* (<nəamanlank>) 'I love them' (cf. Loup 2 and 3 *nəwaməqə* 'I love him'). Eastern Mahican retains final *-w* but adds peripheral suffixes as if it were absent (4b; see below); this pattern presumably diffused from Loup 3 or another language to the east that had loss of **-w* as well as elision in the endings.

Eastern Algonquian supports the reconstruction of the formative *-w* before the first plural endings, as in the underlying forms of Menominee (24; Bloomfield 1962:152).⁴² The TA direct first plural endings may have had old contraction with the theme sign, as in Menominee (26a), or the Menominee contraction may have been an innovation (26b).

(26) Two contraction scenarios for first plural *w*-suffixes

(26a) PA **kəne·wə·nəwə* 'we (incl.) see him' > Men *kəne·wə·nəw*
Dialectal decontraction: → Mun *kəne·wə·wəna*

(26b) PA **kəne·wə·wəwə* 'we (incl.) see him' > Mun *kəne·wə·wəna*
Dialectal contraction: → Men *kəne·wə·nəw*

40. The Massachusetts stem (and hence the Loup cognate) is phonemicized on the basis of John Eliot's transcriptions, but David Costa (p.c. 2006) points out that other sources appear to indicate /wəməŋ-/.

41. Although the variant writing of the final vowel as nasalized conceivably reflects the old exclusive suffix it is more likely simply spurious.

42. The attempt to make this Men |*-w*| go away by citing contracted endings from which it is absent (Goddard 1967:105) is indefensible.

With the original non-contraction of 26b may be compared the non-contraction of PA *|-a·-w-ent| X-3 conj. neg. (*|-a·| TA theme 1 + *|-w| neg. + *|-ent| X-3 conj.): Mun *i·yé·skwa·pe·šǎwá·wǎnt* ‘before he is brought’ (Goddard 2006:194, *ex.* 22), O *waya·pama·winte·n* ‘whether he was seen’, C *me·ywe·yima·wihte* ‘whether he is liked’ (but with contraction: Mes *nesa·te·ni* ‘(from all indications) he was killed’).

In Western Abenaki and Maliseet-Passamaquoddy the formative *-w* is assimilated to the following *n*, giving the heretofore mysterious double *-nn-* (25).⁴³ In Maliseet-Passamaquoddy this is automatically simplified to single *-n* word-finally, where no double consonants are permitted, and it spreads to the *n*-suffixes (28, below); some longer endings also have single *-n-*. Eastern Abenaki is like Western Abenaki except that double *-nn-* has been replaced by single *-n-*; this apparently arose by analogy to other first plural suffixes, as single *-n-* is found not only in the Penobscot dialect (which appears to lack geminate resonants) but also, to judge by a single example, in the Caniba dialect, which retains double *-nn-* in other cases: Caniba EAb *kəpapahtamawewanokak=č̣i* ‘we shall pray for the departed ones’ (⟨kepañiba‘tamašéšaiñnšgaktsi⟩; suffixes |-α| th. 1 + |-naw| 1p,12 + |-əkak| anim. pl. abs., with contraction, enclitic =č̣i fut.) (Râle 1833:486).⁴⁴ As, however, Maliseet-Passamaquoddy (for whatever reason) has *-nokk* 1p-3p (abs.) (without *-nn-*) in the cognate ending (Sherwood 1984:218), this form is not conclusive. In Ojibwe, Cheyenne, and Eastern Abenaki the absence of the formative *w* in the first plural would be accounted for by paradigmatic leveling following the loss of the *w* by sound law in the first and second singular. The formative *w* is absent in the first plural of Meskwaki, Shawnee, and Illinois because the first plural suffix was used only in the inverse, where *w* would have been lost by sound law after PA *-ekw (see above). The formative *-w* was lost in the direct first plural while being retained in the singular only in Eastern Mahican and Cree-Montagnais. In Eastern Mahican this loss, like the adding of the peripheral suffixes without the *w* of the preceding element (see the preceding paragraph), may reflect influence from varieties of Loup spoken to the east in the Connecticut Valley; neither innovation is found

43. Compare the assimilation of PEA *-wəp- to EAb, WAb *-pp-* in negative forms (Goddard 2006:170-1).

44. The Eastern Abenaki vowel corresponding to WAb *ə* is transcribed ⟨α⟩ because it is not nasalized in the Penobscot dialect.

in Western Mahican. Thus, by the weight of the comparative evidence, the absence of the formative *w* from the first plural in Cree-Montagnais must also be an innovation, either by contraction (assuming 26b) or recontraction (assuming 26a).

No unusual patterns of morphological change need be invoked to explain why the conservative Eastern languages reflect the short forms of the *w*-suffix pluralizers in word-final position (as seen in 25 and as reconstructed in 23 and 25 for Proto-Eastern Algonquian) while the original Proto-Algonquian pluralizers are reconstructed with long forms (23). Eastern Algonquian would have inherited a word-final alternation in the pluralizers, with the short forms in the *m*-suffixes and the emphatic pronouns, and the long forms in the *w*-suffixes, the *n*-suffixes, and the inflection of possessed nouns. With the loss of final short vowels, the short and long allomorphs both occurred word-finally, and the originally transparent conditioning of this allomorphy thus became phonologically opaque. This unmotivated variation was then eliminated by straightforward paradigmatic analogy: the short forms were generalized from the *m*-suffixes (17) and the emphatic pronoun (8) to all word-final pluralizers, reshaping the transitive suffixes (23; 27, below) and the possessed-noun endings.

N-suffixes (revised)

The *n*-suffixes were originally used to make the objective endings of the TI and the TA inanimate-subject forms. In these functions they were preceded (with or without intervening suffixes) either by the appropriate TI theme sign (or TI(3) stem) or by the TA inverse theme sign. The *n*-suffixes were also used (with a prefix) to mark the subject in objective endings that indexed a secondary object with a peripheral suffix; in this function they were added to the AI stems or TA themes of verbs that were lexically specified as allowing secondary objects (i.e., AI+O and TA+O verbs [Goddard 1974:319, 1983:354-355]). A formally inanimate secondary object, almost always singular, could also function as the oblique complement of a relative root (Goddard 1983:356-357); secondary objects of this type could be marked on TI stems (or TA inanimate-subject forms), but such inflections were the same as those for inanimate primary objects (or inverse subjects). The inflection for an oblique complement as a secondary object came to be used to mark certain types of complement clauses in Eastern Algonquian (the subordinative mode) and Menominee

(the negative mode, syntactically dependent on a negative word functioning as the predicate). Proulx's (1980b, 1990:137) claim that Proto-Algonquian had n-suffixes only for complements is disproved by the weight of the comparative evidence: full n-suffix paradigms are used in main clauses to mark inanimate objects and inverse subjects in Cheyenne, Ojibwe, Shawnee, and all of Eastern Algonquian except Micmac, the only language that has the n-suffixes in just the restricted use he reconstructs.

The revised reconstructions of the Proto-Algonquian and Proto-Eastern Algonquian n-suffixes, with inanimate singular object (or inverse subject), are given in 27. The formative element is reconstructed as PA **-en* (> PEA **-ən*) before a vowel and PA **-ene·* (> PEA **-əne·*) before a consonant. The replacement of the vowel in the longer form of the formative element in some languages is discussed below.

(27) Revised reconstructions of the n-suffixes⁴⁵

	PA	PEA
1s,2s,3s	<i>*-en-i</i> >	<i>*-ən</i>
1p	<i>*-ene·na·n-i</i>	<i>*-əne·na</i> ← m
12	<i>*-ene·naw-i</i>	<i>*-əne·n</i> ← m
2p	<i>*-ene·wa·w-i</i>	<i>*-əne·wa</i> ← m
3p	<i>*-ene·wa·w-i</i>	<i>*-əne·wa</i> ← m

In the present analysis the formative element PA **-en(e·)* combines with \emptyset in the pluralizer slot to form the singular n-suffix PA **-en* (**-ene·* before modal suffixes). Pentland (1999:231, 237, 239 n. 20, 240-1) describes PA **-en(e·)* (his **-(e)nay*) as “basically” indicating “a direct object,” or more broadly “inanimate non-subjects,” but these glosses are at odds with the use of PA **-ene·* in inflections for TA inanimate-subject (as he points out) and for animate secondary object (which he reconstructs in an example but omits from his paradigms). As with the w-suffixes (discussed after ex. 23), however, the n-suffixes do not mark subjects or objects as such; the direction of the action (or, more precisely, the object) is specified by the theme sign. In OAlg *nitipe·rinta·n* ‘I rule it’ the theme sign $|-a|$ (of TI class 1) marks the object as inanimate; in OAlg *nitipe·rimikon* ‘it rules me’ the TA inverse theme sign $|-ikw|$ indicates that the object is higher on the hierarchy than the subject. In both forms the inflection *ni-n* indicates that a first person singular and an inanimate sin-

45. See footnote 34.

gular are involved as subject and object, but it does not specify which is which. The fact that stems of different shapes are usually selected by objects of different genders does not mean that the TI theme signs do not also index inanimate objects. There is redundancy. Pairs of forms like those just cited are completely isomorphic, each with a theme sign in the same position immediately after the stem. In setting up TI theme signs as the leftmost suffixes in the inflection of TI stems of different form classes, just as a TA theme sign is always the first suffix after a TA stem, Bloomfield (1962:102-103) captured this evident parallelism.

The association of a specific TI theme sign with each TI stem does not mean that the theme sign is part of the stem, as sometimes assumed (Denny 1984:242; Pentland 1999:236). Since the TI theme signs follow the abstract finals, making them part of the stem would require recognizing an additional morpheme type (Denny's abstract finals, Pentland's class markers), one that would be adjacent to the slot of another type with which it did not cooccur or contrast, the TA theme signs. It seems doubtful that such an analysis, if presented in full, would be found viable. The fact that there are secondary derivatives made from TI stems without the theme sign as well as with it (Bloomfield 1962:65-66, 243; Goddard 1990:473-477) – just as in the case of derivatives from TA stems – raises further difficulties for an analysis that includes the theme signs in the stem. Finally on this point, it is worth noting that the analysis of the TI theme signs as inflectional elements rather than stem-forming elements makes it easier to understand why they combine with further suffixes differently from AI stems and with a greater irregularity (Nichols 1980:112, 160-162, 269).

N-suffixes in Eastern Algonquian

In Eastern Algonquian (27, 28), when the n-suffixes are word-final they, like the w-suffixes, have the same short forms of the pluralizers that were inherited from Proto-Algonquian in the m-suffixes. The most parsimonious explanation of this, again, is that in Proto-Eastern Algonquian the inherited pluralizers in the m-suffixes replaced the long forms in all word-final occurrences of the other suffixes (indicated in 27 by “← m”), making all three suffix sets uniform word-finally.

(28) N-suffixes in Eastern languages

	PEA	Munsee	W. Mahican	Massachusett
1s,2s,3s	*-ən	-ən	-ən	-ən
1p-0s	*-əne·na	-əne·n ← 12	-əna·na	-ənān
1p-0p	*-əne·na·nar	-əne·ná·nal	(=1p-0s)	-ənānqnaš
12-0s	*-əne·n	-əne·n	-əna·naw ← s	-ənān ← 1p
12-0p	*-əne·nawar	(not found)	(=12-0s)	-ənānqnaš ← 1p
2p-0s	*-əne·wa	-əné·wa	-əna·wa	-ənāw
2p-0p	*-əne·wa·war (=2p-0s)		(=2p-0s)	-ənāqaš
3p-0s	*-əne·wa	-əné·wa	-əna·wa	-ənāw
	W. Abenaki	E. Abenaki	Mal.-Pass.	Micmac
1s,2s,3s	-ən	-ən	-ən	-n
1p-0s	-ənana	-ənena	-ənen	-nen
1p-0p	(not found) ⁴⁶	-ənenawal ← 12	-ənennol ← 12	(=1p-0s)
12-0s	-ənana ← 1p	-ənena ← 1p	-ənen	-nenu ⁴⁷
12-0p	(not found)	-ənenawal	-ənennol ← w	(=12-0s)
2p-0s	-ənq ← s	-əna ← s	-ənəya ← s	-new
2p-0p	(not found)	-ənal	-ənəyal	(=2p-0s)
3p-0s	-ənq ← s	-əna ← s	-ənəya ← s	-new

The generalization of the short forms also provides an explanation for the word-final *-n* in the Munsee (28) and Unami first plural n-suffix: this is PEA *-(ə)n 12, the expected word-final inclusive suffix (17), which was extended to the exclusive in the n-suffix paradigms of the Delaware languages but otherwise was almost always replaced by the exclusive PEA *-əna (< PA *-ena; 20). Although the Delaware languages generalize the inclusive n-suffix word-finally, however, they use the old exclusive suffix in objective endings that include an overt peripheral suffix: Mun *nəmačih·to·ne·ná·nal* 'we have offended against them (inan.)'.⁴⁸

46. Assuming that the plural peripheral suffixes always combine with the central pluralizers in Western Abenaki in the way attested for the TA inverse and the possessed-noun paradigm (and as in Eastern Abenaki), the combinations with the n-suffixes would be: WAb *-ənanawal 1p,12-0p, *-ənq 2p,3p-0p.

47. Mic *-nenu* 12 has its final vowel from the possessed-noun suffix *-nu* 12 (< PEA *-naw < PA *-nawa and *-nawi).

48. This archaic form from the Anglican prayer book, first published in 1847 (Goddard 1979a:163), is the only example found of the use of *-al* inan. pl. after the pluralizers in the Munsee n-suffixes, but the w-suffixes and possessed-noun pluralizers attest the use of Mun *-na·n-* for both the exclusive and the inclusive before peripheral suffixes. The Unami n-suffixes use *-i* (< PEA *-i·r) here, presumably from the participial suffix.

Massachusetts and Loup 1 and 2 also use the old exclusive suffix for both first persons before overt peripheral suffixes. Note Mass *nənimənanənanənaš* (⟨nunneemunnumonanonash⟩) ‘we (exc.) take them’ (Deut. 3:7); *kətanənanəmətʰənənənaš* (⟨kittinumónteananonash⟩) ‘they (inan.) were given to us (inc.)’ (Acts 7:38); *kətayəməkwənənənaš* (⟨kutayimunkqunanonash⟩) ‘they (inan.) make (it) for us (inc.)’ (2 Cor. 4:17).

The Abenaki languages and Maliseet-Passamaquoddy use the old inclusive pluralizer before peripheral suffixes for both first persons. The Abenaki languages are like Delaware in generalizing one first plural suffix word-medially and the other one word-finally, but the selection is reversed: as with the w-suffixes, Abenaki has the old exclusive suffix PEA *-əna beside the old inclusive PEA *-ənaw-. (Given the loss of Proto-Eastern Algonquian final vowels in Massachusetts and Maliseet-Passamaquoddy the word-final pluralizers in those languages could be from either of the original first plural suffixes.) In Micmac, where the independent indicative is lost, the n-suffixes survive only as the subordinate inflection.

There is extensive restructuring in Eastern Mahican, which generalizes -ənq- 1p,12 before all further suffixes (less likely -ənā, or both shapes in different contexts): EMah *nnošohkamənāna* (⟨nnósoohkúmmunnaunuh⟩) ‘we (exc.) follow it’; *nnōtənəmənānən* (⟨nnòtinnunmunnaunuh⟩) ‘we (exc.) accept them (inan.)’; *kōtnəmnāna* (⟨kootnomnaunuh⟩) ‘we (inc.) receive it’; *kōskihtak^wnānən* (⟨kooskehtauqnaunuh⟩) ‘he renews them (inan.) for us (inc.)’. The Loup materials have few forms with plural n-suffixes. There are apparent attestations of Loup 1 -nāw 2p,3p and Loup 2 -nānq 1p,12 and -nāwq 2p,3p: Loup 1 *kōl-qpātəmənāw* (⟨k8lanbatamenau⟩) ‘you (pl.) benefit from it’ (Day 1975: ms. 88);⁴⁹ Loup 2 *kətəliwənānq* 12-0s neg., in ⟨mat iauten kitili8inanen⟩ ‘it will be of no use to us (inc.)’, *kəmičīnāwq* (⟨kimitchina8an⟩) ‘you (pl.) eat it’.

49. The final ⟨au⟩ is transcribed ⟨an⟩ (marked as uncertain) in Day (1975:275), but this cannot make a second plural form, which is required by the gloss (“Vous serez heureux”) and the second plural subjunctive form in the same sentence. For the verb, cf. Mun *wəla-pé-ntam* ‘he finds (it) useful’.

N-suffixes outside Eastern Algonquian

In the languages outside of Eastern Algonquian (29) the formative element PA **-ene-* of the n-suffixes has PA **e-* replaced by apparent **a-* (> Ch |ó|) or, in Menominee, *i-*; an explanation for this is given in the following sections. In Cree-Montagnais the n-suffixes displaced the first and second person m-suffixes in all inflections, and in Meskwaki and Ojibwe they displaced these m-suffixes before the modal suffixes *-pan* (Meskwaki assertive, Ojibwe preterite) and *-hi* (< ?; Meskwaki future potential); this is the only use of the n-suffixes in Meskwaki and is attested only by three rare and archaic endings (Goddard 1993:231-233, 1995:135, 140-141). The use of the n-suffixes in the marking of secondary objects is lost in Meskwaki, Cree, Menominee, Illinois, and Arapaho and is retained only for AI+O stems in Ojibwe and (with restructuring) Shawnee.

(29) N-suffixes in non-Eastern languages

	Cheyenne	Cree	Old Alg.
sg.	-n	-n	-n
1p	-nóné	-na·n	-na·na·n
12	-nóne	-na·naw	-na·na·n ← 1p
2p	-nóvó	-na·wa·w	-na·wa·
	Meskwaki (assertive)	Shawnee	Menominee (negative)
sg	-na·-	-(n-)	-n
1p	(unattested)	(← m)	-ni·naw ← 12
12	(unattested)	(← m)	-ni·naw
2p	-na·wa·-	-na·wa	-nowa·w

The languages in 29 use the same suffixes for the third persons, singular and plural, as for the corresponding second persons, except for Cree and the Meskwaki assertive, which use the third person m-suffix in these paradigms. The Cheyenne vowel replacement is as in the w-endings (24). Old Algonquin and Maniwaki Algonquin (the old Nipissing dialect of Ojibwe) preserve the two-syllable plural suffix *-na·na·n* 1p,12 in the first plural. Beside this, Ottawa *-na·n* 1p,12 in this paradigm is clearly by recent haplology from the earlier *-na·na·n*, and Cree *-na·n* 1p in this paradigm can be explained the same way. (Both languages also had inherited first plural *-na·n* in the w-suffixes [24].) Thus neither the Delaware suffix

(28) nor the Cree suffix requires Pentland and Proulx's reconstruction of a shortened ending, with no peripheral suffix, in the proto-language (16bc).

The n-suffix formative element outside Eastern Algonquian

Outside Eastern Algonquian, the n-suffix formative **(e)ne·* was replaced by what would have been PA **(e)na·* in the languages that replaced PA **e·* by ostensible PA **a·* as the recontraction of PA **ay-e* (14). Pentland (1999:251, 257, 259) also assumes recontraction in this element, reconstructing PA **(e)ne·na·n-* 1p-0, but taking Plains Cree *-na·n* 1p-0 as from **-nay-(e)na·n-*. This contamination analogy accounts for the *-na·* reflected in the n-suffixes in Meskwaki, Cree, Ojibwe, Shawnee, and (with $|-nó|$ from **-na·*) Cheyenne. For example, it was presumably when the recontraction took place in the inflection of nouns derived by **(i)nay* (30a; 49c, below) that the same vowel replacement was induced in the n-suffixes, which would have made homophonous forms in the verbal inflection for secondary object (30b).

(30) Formative PA **(e)ne·* → **(e)na·* by contamination

(30a) Recontraction in stems in **ay*:

PA **ketapine·nawi* 'our (incl.) sitting place' → **ketapina·nawi*
 (**apinay-* 'group sitting place' ← **api-* AI 'sit')

(30b) Contamination in the formative element:

PA **ketapine·nawi* 'we sit there' → **ketapina·nawi*
 > Cree *kitapina·naw* 'we (incl.) sit'

The n-suffix formative element in Menominee

In Menominee, which has long $|i·|$ as the recontraction of old **ay*, contamination from this can account for why the n-suffixes have $|-ni·|$ in the first plural.⁵⁰ Recontraction to $|i·|$ in the nouns that had stems in PA **-ay* was set off by a leveling of form classes, especially in certain semantic fields, as a result of which stem-final PA **-ay* was mostly replaced by Men *-iy* or dropped (31a; Goddard 1983:381). Nouns with inherited *-iy* made diminutives which had $|-i·hs|$ by regular contraction (31b), adding the usual Men *-εh* to stems that functioned as diminutives synchronically, and the

50. Menominee has $|-ni·|$ only in the 1p,12 negative ending (29); $|-nowa·w|$ 2p,3p neg. has the usual Menominee pluralizer $|-owa·w|$ 2p,3p.

nouns with the new Men *-iy* made new diminutives on this model by recontraction (31c).

(31) Recontraction in Menominee nouns

(31a) Treatment of PA **-ay*:

PA **ašk-ahθay-a* 'raw skin' → Men *aska·hniy* 'rawhide'

PA **weLo·kayi* 'his skin, animal's skin' → pre-Men **ono·kiy*
→ Men *ono·k* 'his skin'

(31b) Diminutive of stems in inherited *-iy*:

Men *asa·tiy* 'poplar' (< PA **asa·twiy-*), dim. *asa·ti·hs-eh*

(31c) Recontraction of PA **-e·hs* to Men *-i·hs*:

PA **weLo·ke·hsi* 'piece of skin'

> Va. Alg. *wərokehs* (<uttocais> "leather"),⁵¹

Caniba EAb *wərokehs* (<8r8'ghes>) 'leather thong'.

→ Men *onu·ki·h* (*onu·ki·hs-*) 'leather'.

When the old diminutives replaced inherited **-ε·hs* with Men *|-i·hs|* by recontraction (31c), the thematic element PA **-ne·* became Men *|-ni·|* by contamination.

*TI class 1 theme sign *-e·*

The class 1 TI is best reconstructed with the theme sign PA **e·* before the m-suffixes (32a), as in Menominee and Northern Arapaho (32b).

(32) TI(1) theme sign PA **e·*

(32a) PA **ne-e·-hmena* 1p-0

(32b) Men *ne-ε·-menaw* 1p-0 (see 33b, below)

NAr *ne-é·-be* 1p-0, *he-é·-be* 2p-0 (non-affirmative)

There is no plausible recent source for this theme sign in Menominee or Arapaho and it must be old. Cowell & Moss (in Moss 2005:447) confirm the Northern Arapaho inflections, which were previously poorly attested (Goddard 1967:103). The corresponding Southern Arapaho forms obtained by Kroeber (1916:111) in 1899 have a theme sign Ar *-owu-* (< **-omi-* < PA **-am* + **-i* or **-o*), like NAr *he-ow* 12-0 (< **-omin* < ?); these endings match no language and must be innovations, though of uncertain provenience.⁵²

51. Interpreted by Siebert (1975:383) as a writing of "/otassayas/ 'his hides, skins'."

By regular umlaut the TI(1) theme sign PA **-e·* was replaced by PA **-a·* before the n-suffixes (33). This umlaut is still a synchronic morpho-phonemic rule in Menominee (Bloomfield 1962:158), affecting the TI theme sign before the n-suffixes in the negative (33a) and in the first and second singular of the indicative (33b).

(33) Umlaut of TI(1) theme sign before n-suffixes

(33a) Men *ke-a·ni·naw-an* 12-0 neg. (theme sign |*-e·*|)
(← PA **ke-a·ne·naw-i* 12-0s)

(33b) Men *nepo·na·n* 'I put it in the pot' (*ne-a·n* 1s-0s)
(cf. *nepo·ne·menaw* 'we (exc.) put it in the pot'; 32b)

Proulx (1990:135) and Pentland (1999:252, 259) have the same distribution of the ostensible TI(1) theme signs PA **-e·* and **-a·* as in 32 and 33, but they reject umlaut and interpret these suffixes as separate developments from the theme sign **-am* that is found in other forms. Proulx (1980a:10) proposed that the PA **-e·* and **-a·* had arisen from unique treatments of the theme sign **-am* at different periods,⁵³ while Pentland (1999:252) proposed that they had developed phonologically before variants of the formative elements that lack connective **e* (which they otherwise always have after a consonant). None of the required phonological processes is supported by other evidence, and these suggestions remain unconvincing as well as unnecessary. The antiquity of the theme sign **-e·* is supported by its apparent use, with regular umlaut (Bloomfield 1962:238), in noun derivation.

(34) TI(1) theme sign PA **e·* in stem formation

PA **kwenta·kan-i* 'throat' ← **kwent-* TI(1) 'swallow'
+ **-e·* TI(1) theme sign + **-kan* noun final

Proulx (1980a:10) proposed that the **-a·* in 'throat' was a contraction of **-am-e* in the "Lake languages" (Cheyenne, Meskwaki-Kickapoo, Miami-Illinois, Ojibwe-Potawatomi, and Shawnee), but, again, there is no

52. The reconstruction of PEA **-ami* before the Eastern Algonquian m-suffixes (Goddard 1967:79) was corrected to **-amə* (Goddard 1974:322).

53. Proulx (1980a:11) argues that the umlaut of **e·* to **a·* before **n* is old in nouns but cannot be old in verbs because, if it were, the same umlaut should occur before **-hm* in verbs as well as nouns, but there is no noun that attests this umlaut before **-hm*. For the example he had in mind, see 45c, below.

parallel for this phonological change, and furthermore there are exact cognates outside his "Lake" grouping: C *mikohta·kan* (Watkins 1865:272), Men *neko·htakan* 'my throat', Mun *nkwantá·kan*, Ar *béitóo*.⁵⁴

The umlauted variant **-a·* of the TI(1) theme sign was generalized in Meskwaki, Ojibwe-Potawatomi, Shawnee, and Miami-Illinois. This was inherited as the form of the theme sign in the objective forms (35a) and extended to the absolute forms (35b).

(35) Generalization of PA **a·* as TI(1) theme sign

(35a) PA **a·* inherited:

i) PA **ne-a·-ne·na·n-i* 1p-0s

→ OAlg, Nipissing O *ni-a·-na·na·n* → Ott *ni-a·-na·n*

ii) PA **ke-a·-ne·wa·w-i* 2p-0s

→ OAlg, Nipissing O, Ott *ki-a·-na·wa·*, Sh *ki-a·-na·wa*

(35b) PA **e·* replaced by **a·*:

PA **ne-e·-hmena·* 1p

→ O *ni-a·-min*, Mes *ne-a·-pena*, Sh *ni-a·-pe*

Cree and Cheyenne generalize the non-umlauted variant of the theme sign, PA **-e·* (> Ch |-á|) (36a), though Cheyenne retains the original umlauted **-a·* (> Ch |-ó|) in the ending for obviative subject (36b). As both languages have only n-suffixes in first and second person TI endings, the theme sign must have been leveled before the old TI absolute (with m-suffixes) was given up. The tolerance of the lack of umlaut in the **-e·* of a suffix before formative **-en* beside the persistence of umlaut in stems (at least in Cree-Montagnais; 42a, below) has a parallel in Eastern Algonquian, which also retained this umlaut in stems (42bcd, below) but did not have it in the passive suffix PEA **-əke·* (Goddard in Goddard & Bragdon 1988:530-532; Sherwood 1984:253).

(36) Generalization of PA **e·* as TI(1) theme sign

(36a) PA **ne-a·-ne·na·n-i* 1p-0s → as if PA **ne-e·-na·na·n-i*

> Cree *ni-e·-na·n* (by haplology)

> Ch |ná=-á-nóné| (prefix rebuilt as a preverb)

(36b) PA **we-a·-ri·n-i* 3'-0s > Ch |é=-ó-te\$| (prefix rebuilt)⁵⁵

54. Another example of this pattern of derivation has no identified cognates but an archaic look: Men *ε·sa·kan* 'grinder' ← *ε·sam* 'he grinds it'.

55. The morphophoneme |\$| (historically reflecting a lost syllable) prevents the devoicing of a penultimate vowel.

If PA **-am* TI(1) th. combined with **-ri* obv. as PA **-anri*, as Pentland (1999:237-8, 259) suggests (his **-anli*), this would have given Ch **|-óhe|*, which could have been regularized as *|-óte|* (with *|-te|* obv. < PA **-ri*), but no language has a direct reflex of PA **-anri* in TI(1) obviate forms.

Eastern Algonquian replaced the TI(1) theme sign **-e·* (~ **-a·*) everywhere by the suppletive allomorph **-am* used in the third person absolute and in the conjunct and imperative orders (Pentland 1999:256; cf. Proulx 1980a:10). The central suffixes were added after this on the model of AI and TI(3) consonant-final stems, with the connective vowel PEA **ə* (37).

(37) Generalization of PA **-am* TI(1) th. in Eastern Algonquian

(37a) PA **-amwa* 3s-(0) > PEA **-am* 3s-(0)

PA **ne-ehmena* 1p-(0) → PEA **nə-aməhməna* 1p-(0)

(37b) PA **we-ani* 3s-0s → PEA **wə-amən* 3s-0s

PA **ne-ane·na·ni* 1p-0s → PEA **ne-aməne·na* 1p-0s

Contamination analogy in Eastern Algonquian

When the pluralizer **-əna·n* 1p was replaced in word-final position by PEA **-əna* (according to the present hypothesis; 23, 27) it would have exhibited an ostensible change of word-final pre-PEA **-a·n* to PEA **-a*. The reconstruction of this morphological change provides an explanation for another Eastern Algonquian oddity: PEA **-a* as the word-final allomorph of the suffix **-a·n-* 1s conj. (< PA **-a·n-*), which is reflected in Unami, Mahican, and the Abenaki languages and lost by sound law in Massachusetts, Maliseet-Passamaquoddy, and Micmac (Goddard 1979b: 99, 1980:152).⁵⁶ The same replacement of word-final pre-PEA **-a·n* by PEA **-a* affected the first singular conjunct suffix by contamination (38).

(38) Contamination analogy in the first singular conjunct

(38a) Paradigmatic analogy:

PA **-ena·n-a* 1p+ANsg and **-ena·n-i* 1p+INsg >

pre-PEA **-əna·n* → PEA **-əna* 1p (the m-suffix pluralizer)

56. Munsee reintroduces *-a·n* 1s word-finally (from the subjunctive and the participial forms that preserved it word-medially), one Southern Unami sub-dialect had *-a*: (Goddard 1979a:126), and one or more Loup dialects restore *-ə* (as if < **-a*).

(38b) Contamination:

PA **-a·n-i* 1s conjunct > pre-PEA **-a·n* → PEA **-a*

Central suffixes before modal suffixes

The central suffixes show allomorphy before the modal suffixes of the independent order, of which the most important are PA **(e)pan-* preterite (word-finally PA **(e)pa* > PEA **(ə)p*), **-esahan-* present (**-esaha*), and **-etoke·h-* dubitative (**-etoke·*).⁵⁷ The first two of these are used in the conjunct order as well as the independent and have often influenced each other in shape and generalized the word-medial allomorphs. For example, Menominee has *-esah* pres. < PA **-esaha* and remodeled on this *-epah* pret., but before peripheral suffixes it has *-(e)sapan-* pres. remodeled on *-(e)pan-* pret. Meskwaki refashioned the present (Meskwaki conclusive) to **-esapa*, **-esapan-* (> *-ehapa*, *-(e)hapan-*), after the old allomorphy of the preterite (Meskwaki assertive), but later generalized *-pan-i* for the assertive word-finally (Goddard 1995:134-135). The differences between these suffixes in some Eastern languages probably continue the Proto-Algonquian situation. For example, Northern Unami has *pé·p* 'he came (in the past)' (< PEA **pe·p* < PA **pye·pa* ← |*pya·w_m-pa*|) beside *pé·wsa* 'he came, has come' (< PEA **pe·wasa* < PA **pye·wesaha* ← |*pya·w_m-esaha*|) (Goddard 1979a:146, 149; Zeisberger 1887:32, 40, 50). The word-final allomorph of the present suffix lost the expected PEA **-h* (perhaps to avoid the rhyme with PEA **-ah* obv. pl.), but the word-medial **-h-* survived in Unami (Goddard 1979a:55-56), Mahican, and Western Abenaki (Laurent 1884:157-158). In Eastern Abenaki word-final *-sa*, without the **h*, was generalized word-medially, resulting in disyllabic *-saan-*: Caniba EAb *wetənəkəsaanik* (<8éteneghesaanik) 'those who have taken it' (Râle 1833:513).⁵⁸

In the first and second singular the m-suffix formative PA **-ehm*, which was lost word-finally except for the remnant **-e* after a consonant, survives before the modal suffixes in several languages. The combination

57. These are Bloomfield's (1946:99, 1962:163-166) labels (cf. Goddard 1979a:53-56, 1979b:89-90); others have been proposed for Meskwaki (Goddard 1995:131-136) and Ojibwe (Pentland 1984).

58. In such cases Siebert (1988:738) transcribes Penobscot with a single vowel bearing a penultimate (rather than the usual antepenultimate) accent, describing this as a "long syllable of four morae ... pulsated on two different pitch levels."

of PEA **-əhm* and **-p* pret. was PEA **(ə)həmp*: Un *ntəluwé·hump* ‘I said’, Mun *nəmanxé·həmp* ‘I was cutting wood’ (Goddard 1979a:146-147), WMah *nmačāyhəp* (⟨N’ matschaihòp⟩) ‘I have sinned’, Loup 2 *nəp·osihəp* (⟨nip8ssih8b⟩) ‘I got in the boat’. In some languages the allomorph **-pan* was generalized: Caniba EAb *nəkatawi·posihipan* (⟨nekada8l p8sihiban⟩) ‘I wanted to get in the boat’ (Râle 1833:549), Mal-Pass *ntamehpən* ‘I fished’ (Sherwood 1986:231). In Eastern Mahican the ending was remodeled to rhyme with the present (cf. Menominee): EMah *ntayōtəwāhpah* (⟨ndiotuwohpoh⟩) ‘(yesterday) I fought’ (Edwards 1788:13). In Munsee, Loup, Western Abenaki (LeSourd 2002:31), Eastern Abenaki, and Maliseet-Passamaquoddy this fused singular ending was extended to the first and second plural (and in Maliseet-Passamaquoddy also to the third singular): Mun *nəmatəlohkehna·həmp* (⟨nmahtahlookanauhūm⟩) ‘we have erred’; Caniba EAb *nənəskarəpənohopan* (|pənawəhəpan|) ‘we defended ourselves’ (⟨nañbiki kessada neskarəiben8h8ban⟩) (Râle 1833:428); Mal-Pass *ntamepənohpən* ‘we fished’ (Sherwood 1986:231). In later Western Abenaki materials the extra syllable before *-pan* is optional or has been leveled out (Laurent 1884:131, 136, 142, 165, 181), and in Penobscot Eastern Abenaki, EAb |həpan| was replaced by |ppan|. ⁵⁹

PEA **-əhəmp* 1s,2s pret. probably continues a PA **-ehempa*, since **-pa(n-)* did not originally take connective **e* (Pentland 1979:381; Proulx 1990:106; Costa 2003:355-360) and a cluster like **hmp* was impossible, but the only trace of this outside Eastern Algonquian is a single archaic form in Illinois that has been regularized: Ill *nisimpa* ‘I said {so}’ (Costa 2003:451). This argues in favor of the reconstruction PA **(e)hm* rather than Pentland’s (1999) **-ʔm*, as there was no intervocalic PA **ʔ*. Menominee has *-m-epah* in the first and second singular preterite, rhyming with the inherited *-m-esah* of the present. In Ojibwe and Meskwaki the m-suffixes have been displaced before the preterite suffix by n-suffixes, and in some varieties of Ojibwe the same happens before the dubitative suffix.

The singular suffix PA **-ehm* has its regular reflexes before the dubitative and present suffixes, which begin with PA **e* (> PEA **ə*): Mes *nəpəpetoke* ‘I must have been asleep’; Mes *nənəhi-tənəti·pahəpə* ‘I

59. There was no EAb **-pəppan* (Siebert in Proulx 1982:405); Siebert (1980:117-118) assumed incorrectly that ⟨-heban⟩ in Râle (1833:556) had “a misprint of *h* for *b* or *p*.”

know how to gamble (but I didn't realize it before)' (*-pahapa* < *-pehapa*) (Goddard 1995:132); Men *kepiamesah* 'so you (sg.) come'; Nipissing O *ninkat-iša·misan* 'il y a apparence que j'irai', *ninkat-iša·mitok* 'il est possible que j'y aille' (Cuoq 1886:445); NUn *mpamsa* 'I have come' (Inə-pā-hm-əsa) (Goddard 1979a:149); EAb *kəkərahamašipəsa=nawa* (<kekerahamašipesana8a>) 'did you restrain yourself?' (Râle 1833:555); Mal-Pass *nwikips* 'I might have lived {somewhere}' (|-əsă| dubitative-preterite) (Sherwood 1986:240).

Before modal suffixes the pluralizers always have the same form in all suffix sets; **-ena·n* 1p and **-wa·w* 2p lose their final consonant (Goddard 1979a:14; Pentland 1999:254, ex. 39a) or (as in some forms in some Eastern languages) replace it by a **kw* of uncertain origin (Goddard 1979a:112-113, 149; Proulx 1990:107), while **-enaw* 12 shows contraction: Mes *neki·wa·ni·pena·toke* 'we (exc.) have probably made a mistake' (cf. *neki·wa·ni·pena* 'we (exc.) are lost'), *nene·wokona·toke* 'he must have seen us (exc.)' (cf. *nene·wokona·na* 'he saw us (exc.)'); O *kitikkito·mwa·tok* 'perhaps you (pl.) say' (cf. *kitikkitom* 'you (pl.) say'), *kiwa·pama·wa·tok* 'you (pl.) see him perhaps' (cf. *kiwa·pama·wa* 'you (pl.) see him'); Mal-Pass *ntamepənohpən* 'we (exc.) fished' (cf. *ntamepən* 'we (exc.) fish'), *nwicohkəmanohpən* 'we (exc.) helped him' (cf. *nwicohkəman* 'we (exc.) help him').

FORMATIVE ELEMENTS

The formative elements that distinguish the three sets of central suffixes provide an important indication of the origin of the independent order inflection. All three of them are used alone to indicate an indefinite subject. All three are related to homophonous suffixes used in noun derivation, reflecting the origin of the independent indicative verbs in the use of verbal nouns in verbless predications of existence (Goddard 1967:87, 1974:325-327; Proulx 1982).

Indefinite subject inflection

Any of the three formative elements could originally be used without a pluralizer or a prefix to make an indefinite-subject form (abbreviated X), which functioned as an inflectional agentless passive. When the PA **-hm* of the m-suffixes had this function it was followed by a suffix **-i*, which

cannot be clearly identified with any of the other suffixes of this shape. This ending made the indefinite-subject form of AI verbs.

(39) Reflexes of PA **-hmi X*

(39a) Mes *ipi* 'one says, people (indef.) say {so}' (*i-* 'say {so}')

(39b) Sh *wi-čhetipi* 'there was a wedding' (*wi-čheti-* 'get married')⁶⁰

(39c) O *ni-mim* 'one dances, people (indef.) dance' (*ni-mi-* 'dance')

Meskwaki extends *-pi X* to the transitive paradigms, and Ojibwe extends *-m X* to the TI: Mes *wa-pama-pi* 'he, they are looked at', *wa-pata-pi* 'it, they are looked at'; O *wa-panta-m* 'one sees it' (Baraga 1850:350).

Meskwaki and Shawnee also have *-pi* in the first and second person singular of the TA passive paradigm: Mes *kekehke-nemeko-pi* 'people know about you', Sh *niwa-wi-neko-pi* 'I was sent'. Given the close affinity between these two languages, however, it is not clear that this use of the suffix can be reliably reconstructed to Proto-Algonquian, as earlier assumed (Goddard 1967:85, 94). It is not found in Ojibwe and Illinois, the other languages that reflect PA **-eko* in the independent-order first and second person TA passive:⁶¹ OAlg *nitipe-rimiko* 'I am ruled' (Davialt 1994:53, 488); Ill *nintepe-rimeko* 'I am ruled' (cf. Costa 2003:469). Pentland (1999:242) notes that these TA passive forms "do not reconstruct neatly," but his conclusion that they were not originally distinct from putative inverse absolute forms does not find support in any attested language. The indefinite person (the notional subject of the passives) is not the same as an overt indefinite noun phrase, and no language treats these as the same. On the other hand, the reconstruction of indefinite-subject absolute forms for transitive verbs with third person objects of the two genders (Pentland 1999:259) is unnecessary, as such forms are no more to be expected than the equivalent of third person absolute forms with no overt inflection for a third person, which do not exist in Algonquian.

In the *w*-suffix and *n*-suffix paradigms the indefinite-subject suffix was followed by an appropriate peripheral suffix indicating the notional

60. The reflexive suffix PA **-etwi* AI (in a passive function) is inflected for indefinite subject to indicate action on another indefinite (Goddard 1979a:44, 193, *n.* 3).

61. Cree, which reshapes PA **-eko* as C *-ikawi* (Goddard 1969:195-196, *n.* 3; Pentland 1999:242, *n.* 27), provides no evidence, given that it replaces all *m*-suffixes with *n*-suffixes.

object. The full endings in the TA were PA **-a·wa X-3s* and **-a·waki X-3p*. These are usually treated like the homophonous TA direct endings with first or second singular subjects, but in most varieties of Ojibwe the **w* is retained before the peripheral suffix in the passive endings, as in AI verbs (40d). Massachusetts has generalized the pattern that would have been regular for short-vowel monosyllabic stems (like *nəhš-* TA 'kill'), with the ending for singular object lost in the TA direct (as in *nənəhš* 'I kill him') but retained in the two-syllable form for indefinite subject (40f).

(40) PA **-w X*

(40a) PA **wa·pama·wa, *wa·pama·waki* 'he is, they are looked at'

(40b) C *wa·pama·w, wa·pama·wak* 'one sees him, them'

(40c) Men *na·na·w, na·na·wak* 'he is, they are fetched'

(40d) O *wa·pama, wa·pama·wak* 'he is, they are seen'

(40e) Ill *tipe·rima·wa, tipe·rima·waki* 'he is, they are ruled'
(Costa 2003:469-470)

(40f) Mass *nəhšqaw* 'he is killed', *nəhšqak* 'they are killed'

(40g) Mal-Pass *wicohkema, wicohkemak* 'he is, they are helped'

The n-suffix paradigms had PA **-eni X-0s* and **-enari X-0p*. With the TI(1) theme sign the full endings were PA **-a·ni X-0s*, **-a·nari X-0p*, and PEA **-amən X-0s*, **-amənar X-0p*. These n-suffixes also supplied the passives for the secondary objects of AI+O and TA+O stems. In Menominee, Illinois, and Eastern Algonquian endings with PA **-en X* replaced PA **-hmi X* in the ordinary AI (41), being already in use in the AI indefinite-subject forms of the Menominee negative and the Eastern Algonquian subordinative.

(41) PA **-en X*

(41a) Men *po·na·n, po·na·nan* 'it is, they are put in the pot'
Men *po·sen* 'there is embarking' (|po·se-| AI)

(41b) Ill (Miami) *mihka·na* 'it is found' (Costa 2003:283, 459)
Ill *ina* 'one says {so}' (|i-| AI)

(41c) Un and Mun *kəntka·n* 'there is dancing' (|kəntəkā-| AI)
Un and Mun *mīl̄ti·n* 'it is given' (|mīl̄tī-| AI+O)

(41d) Mass *məškamən* ‘it was found’; *ayəmənaš* ‘they were made’
 Mass *mākən*, *mākənaš* ‘it is, they are given’ (|māk-| AI+O)

(41e) Mal-Pass *pəməkan* ‘one dances along’ (|pəməka-| AI)

After PA **-en* X spread to the AI in Eastern Algonquian, some Eastern languages gave up the use of PEA **-ən* X with TI stems, using derivational passive stems instead.

Pentland (1999:256-257, 259, 261) reconstructs PA **(e)na* X-0s (< **-enay-i*) and **(e)nali* X-0p (← **(e)na* < **(e)na·li* < **-enay-ali*), assuming an underlying form **-enay*, contraction of **-ay-a-* to **-a-*, and final syllable loss. The outcome would have been PA **(e)na* X-0 for both singular and plural objects, but this homophony was eliminated by “replac[ing] **-na* with **-ni* in the singular and **-nali* in the plural” (Pentland 1999:257). At the same time, PA **-na* X survived as Ill *-na* in the Illinois TI and AI (41b). In addition to the unclear relative chronology – the paradigms seem inconsistent with the discussion – the fundamental weakness in this account is its reliance on the hypothesis of pre-Proto-Algonquian final syllable loss, which does not seem well supported (as discussed above). It is also worth noting that an n-suffix formative of the shape PA **-nay* (Proulx 1980b:292; Pentland 1999:250) is not actually found in any language with that shape. In contrast, the reconstructions PA **-eni* X-0s and **-enari* X-0p (which Pentland accepts for an unspecified late stage) have the same allomorphy found in all languages that provide relevant evidence: the formative element that is PA **-ene* before consonants is PA **-en* before vowels. By the same token, of course, these reconstructions in principle reinstate the problem of this odd allomorphy as something to be solved in the lawless expanse of pre-Proto-Algonquian, where the comparative method provides no constraints.

As for Ill *-na* X, it must always have been used in the TI but is very unlikely to have survived since the proto-language as an old ending that specified the object as an inanimate singular, a category everywhere marked by the peripheral suffix PA **-i*. Although no Illinois forms were apparently recorded for indefinite subject and inanimate plural object, given that number is never distinguished for inanimate objects in the independent order in Illinois it is likely that Ill *-na* X was used for plural objects as well as singular, and in that function it would have an obvious source in PA **(e)nari* X-0p. Illinois has only Ill *-a* as the continuation of PA **-ari* inan. pl. (Costa 2003:211, 217-218). Ill *-na* X in the AI cannot be

from a putative ending PA **-na(·)*, as earlier proposed (Goddard 1974:327), since it is an n-suffix and thus on any hypothesis would have to have been part of an ending complex that included a peripheral suffix, whether it came originally from a use in the TI (as here claimed), the AI+O (Pentland 1999:258), or a putative Proto-Algonquian subordinative (Proulx 1990:137). The peripheral suffix would have selected the allomorph **-en* before it.

Cree-Montagnais and several Eastern languages provide evidence that before the n-suffix formative element PA **-en* a stem-final PA **e·* was umlauted to **a·* (42; Goddard 1981:288). This matches the umlaut of the TI(1) theme sign *|-ε·|* before the same suffix in Menominee (33; Bloomfield 1962:158).

(42) Umlaut of stem-final PA **e·* to **a·* before PA **-en* in n-suffixes

(42a) C *nipimohta·n* 'I walk' (stem *|pimohte-|* AI: *pimohte·t* 3s conj.)

(42b) Mass *awāhkq̄n* 'it is used'
(stem *|awāhtʰā-|* AI+O: *nətawāhtʰām* 'I use (it)')

(42c) EAb *nəmiləwan* 'I give it away'
(stem *|miləwe-|* AI: *nəmiləwe* 'I give')

(42d) Mal *aman* 'one fishes'
(stem *|ame-|* AI: *ntamepən* 'we (exc.) fish')

Pentland (1999:247) denies that there was umlaut of PA **e·* to **a·*, arguing that the proto-language had intransitive stems ending in underlying **a·* but none in underlying PA **e·*, and that stem-final PA **a·* was thus always the original stem-final vowel and never produced by umlaut. This claim has not been convincingly reconciled with the fact that all Algonquian languages have a distinct synchronic class of intransitive stems ending only or predominantly in the reflex of PA **e·* beside another class of intransitive stems that end only or predominantly with the reflex of PA **a·* (e.g., Lacombe 1874:55, 92).⁶² The two classes are not distinct in some inflectional forms in some languages, but they are consistently distinct in all imperative forms, in all conjunct forms (except the AI participles of Meskwaki-Kickapoo),⁶³ and in the independent order before the first and second person m-endings (where they exist). The agreement of all the

62. Except, of course, Northern East Cree and Western Naskapi, which do not maintain distinct reflexes of these vowels.

synchronic grammars of the descendant languages requires the reconstruction of the same two intransitive form classes in the proto-language.

The membership in the two classes can also be reconstructed, given the extensive agreement on the identity of the stems in each. For example, every language that has a reflex of the stem Pentland (1999:230-231) reconstructs as PA **ata-wa-* ‘trade, sell’ (beside **ata-we-wa* ‘he trades, sells’) in fact supports a reconstruction as PA **ata-we-*: Mes *e·h=ata-we·ki* ‘when it was sold’, Swampy Cree *e·y=ata-we·ya·hk* ‘when we (exc.) traded (it)’; Men *neta·ta·we·m* ‘I buy things’; O *nintata·we* ‘I sell, trade’; Ill *nitata·we* ‘I trade, buy’; Ch *ná=hohtóvanOtse* ‘I bought them (inan.)’ (with the regular vowel shifts; umlaut before *n* leveled out); Mass *atqāš* (<adtôash>) ‘buy it (imper. sg.)’ (with regular vowel shifts).

The languages also agree on which inflectional forms have non-contrastive stem-final PA **e·* or **a·* for both form classes. Before the n-endings the **e·*-stems show PA **e·* in some languages but PA **a·* in others (Cree-Montagnais, Massachusetts, the Abenaki languages, and Maliseet-Passamaquoddy). Pentland is correct in concluding that PA **e·* is not to be reconstructed before n-endings, only PA **a·* (and other vowels), but this evident fact does not constitute evidence against a contrast between PA **a·* and **e·* in other inflectional forms. Similarly, in the third person forms of the m-endings (having PA **-w 3,0*) PA **a·* was umlauted to **e·* (as Pentland reconstructs), but again this is not evidence that the stem classes were not distinct in other forms.

The statement that “stems in **-wehθa-* ‘walk’ retain umlaut in all Cree-Montagnais dialects, but both Ojibwe and Fox-Sauk-Kickapoo generalize *e·*” (Pentland 1999:247) obscures the fact that all languages, including Cree-Montagnais, confirm a reconstruction of PA **-wehθe·* (for the forms where the classes contrast), a fact of comparative grammar that is not, in principle, undermined by evidence for the replacement of PA **e·* by **a·* in some morphological environments. It is the umlaut of PA **e·* to **a·* before C *-n* (and *-htay* pret.) – not the umlaut in the opposite direction before *-w 3,0* of the m-suffix set – which is continued as the synchronic vowel replacement that affects the class of Cree-Montagnais verbs that have |e·| before the endings of the conjunct and the imperative.

63. Meskwaki-Kickapoo has an archaic-looking but unique umlaut of |e·| to |a·| in AI participles with the subject or the possessor of the subject as head: Mes *wa·pinikwa·ta* ‘the white-eyed one’ (|wa·pini·kwe·-| AI), K *piitikaata* ‘he who went in’ (stem |pi·tike·-| AI).

In fact, there is comparative evidence for a third class of stems, which ends in a PA **a* that does not umlaut to **e* (Cuoq 1892:108-109; Bloomfield 1962:58; Goddard 1979:65-66), e.g., PA **nyi·ma·wa* 'he takes food for the trip'. This class tends to be recessive, taking over umlaut from the umlauting **a*-stems, but there is wide agreement on class membership among the languages that conserve it best.

The extensive agreement on which stems and finals are in which intransitive form classes makes the reconstruction of the morphological stem classes lexically specific. The much less common disagreements between languages, which Pentland invokes, do not argue against the original existence of both stems in PA **e* and stems in **a*, anymore than disagreements in gender argue against the original existence of two genders. Defections from one form class or gender to the other are part of the histories of the respective languages and are among the innovations that make the languages different.

All languages retain evidence of a neutralization of this contrast before certain suffixes of inflection (42) and derivation (Pentland 1999: 247, n. 36). These shared neutralizations attest shared patterns of umlaut that must be reconstructed as such, since to reconstruct the neutralization is to reconstruct the umlaut that produces the neutralization.

The comparative method requires that features that all descendant languages agree on be reconstructed to the proto-language and not attributed to multiple identical parallel innovations. The shared features that must be reconstructed in this case are: distinct classes of intransitive stems in PA **e* and **a*, umlaut of PA **a* to **e* in certain morphological environments, and umlaut of PA **e* to **a* in certain other morphological environments. On Pentland's hypothesis, starting from a proto-language with only stems in PA **a* (except where umlauted to **e* before **-w 3,0*), there is no plausible way to account for how the same ostensible synchronic umlaut of PA **e* to **a* in the same environments could have emerged independently in several languages, or to account for the extensive agreement on the membership of the form classes.

*PA *-en X in conjunct endings*

Proto-Algonquian also had a suffix PA **-en* that indicated an indefinite subject in the conjunct order (43; Goddard 1979a:132-133, 1979b:88),⁶⁴ this did not have an added vowel before a consonant, a fact that may indi-

cate that the *-e· in the formative element *-en(e·) was not originally part of this morpheme.

(43) PA *-en X (conjunct) in Ojibwe

(43a) O *ma·ča·nk* '(that) one leaves'

(43b) O *wa·pamint* '(that) he is seen'

(43c) O *wa·pantamink* '(that) it is seen'

There is evidence, however, for a suffix PA *-ene· X, matching the longer allomorph of the formative element, before modal suffixes in the conjunct order. This has the indefinite-subject function in archaic potential and injunctive endings in Meskwaki, Massachusetts, Eastern Abenaki, and Micmac.

(44) PA *-ene· X in conjunct modes

(44a) Mes |-ene·ha| X/POT:

po·ni·ne·ha 'one would camp'

wanimene·ha 'he would be deceived'

(44b) Micmac -nes X/POT (Proulx 1978:115, 117):

liyenes 'someone could go'

s'mines 'someone could feed me'

(44c) Mass |-ənāč| X/IMP

ətamənāč (⟨uttámunach⟩) 'let it be called {so}'

ənənāč (⟨unnunach⟩) 'let him be called {so}'

(44d) EAb -neč 12/IMP (Siebert 1984:617):

mačéhlaneč 'suppose we start off'

(44e) Micmac -neč 12/IMP (Proulx 1978:136):

pusineč 'let's go aboard'

64. Proulx (1990:112-114, 140, n. 5) says of these reconstructions and those for inanimate subject that "most are wrong," but allowing for notational idiosyncrasies they are all the same as his except for the two with exclusive objects. Instead of PA *-inamenk X-1p he proposes PA *-iyenamenk, which is morphologically unmotivated; the vowel length in Mes *-inamek* and K *-inamek* X-1p is from the use of this suffix in the interrogative, where it reflects PA *-i-w-en-amenk (Goddard 2001:199; cf. Proulx 1990:122). Proulx objects to the reconstruction of PA *-iyamenk 0-1p on the grounds that the Micmac suffix does not match K *-iamek*, but as he correctly points out the Micmac suffix was not inherited.

The agreement between the Meskwaki-Kickapoo potential (with *-ha* < **-sa*) and the Micmac potential is especially striking (cf. Proulx 1990:124-126), and the apparent lack of a central suffix in these forms suggests an extremely archaic layer of morphology.

Formative elements as secondary noun finals

The m-suffix formative PA **-ehm* matches the secondary noun final **-ehm* that derives nouns from AI verbs in some archaic formations (45). Before this suffix a stem-final **|e·|* is archaically replaced by PA **a* (45d).

(45) Noun final PA **-ehm*

(45a) PA **wi·kiwa·hmi* 'dwelling'
(← **wi·ki-* AI 'dwell' + **-wa·(w)* 3p?)⁶⁵

(45b) PA **akwehmi* 'robe' (← **akwi-* AI(+O) 'wear as a robe'; the noun appears to point to an earlier **akw-* AI)

(45c) PA **ni·čya·hma* > Mes *ni·ča·pa* 'doll'
(← PA **ni·čya-* AI 'have offspring')⁶⁶

(45d) PA **wenikahmi* 'portage' (← **wenike-* AI 'portage'
< 'carry on shoulder' < '*raise something aloft')

Homophonous with the w-suffix formative is a secondary noun final non-umlauting PA **-w* that makes passive nouns from TA direct themes (Bloomfield 1962:242, 337).

(46) Noun final PA **-w* (non-umlauting)

(46a) Men *na·na·w* 'invited guest' (*na·N-* TA 'go to get'; cf. 40c)

(46b) Mes *papakena·wa* 'corncake' (*papaken-* TA '*flatten by hand')

Beside the short variant of the n-suffix formative PA **-en* there is a noun final of the same shape that makes nouns from TI(1) themes (47) and AI stems (48) (Bloomfield 1962:233, 235-236). Before this suffix the TI theme sign **-e·* and an AI stem final **-e·* are umlauted to PA **-a·* (cf. 33, 42) or, archaically, **-a* (48d).

65. Perhaps **wi·ki-wa·w-ehm-i* with **a·w-e* > PA **a·* (instead of **o·*) after **w*, as after |Cw| in Menominee; Proto-Algonquian did not have morpheme-internal **wo·*.

66. Cf. Caniba EAb *niče, kəniča* 'she has, you (sg.) have offspring': <ke nitza ne témis> "ma chienne tu as des petits," <nitzé> "elle en a" (Aubery 1756:412).

- (47) Noun final PA **-en* after TI(1) theme sign
- (47a) Mes *takwaha·ni* ‘corn mush’ (*takwah-* TI(1) ‘grind up’)
 Mes *ketasa·ni* ‘mush variety’ (*ketas-* TI(1) ‘*pop out by heat’)
 Mes *no·hkaha·ni* ‘pemmican’ (*no·hkah-* TI(1) ‘*pound soft’)
- (47b) Men *keta·ʔsan* ‘popped rice’ (*|ketaʔs-* TI(1) ‘pop out by heat’)
- (47c) Mun *lohkhámən* ‘flour’ (*|lōhkah-* TI(1) ‘*pound soft’)
- (48) Noun final PA **-en* after AI stem
- (48a) C *apwa·n* ‘roasted meat’ (*|apwe-* AI ‘roast meat over fire’)
 EAb *àpan* ‘bread’ (*|ape-* AI+O ‘roast’)
 Mun *əpwá·n* ‘bread’
- (48b) PA **paka·n-* ‘nut’ (PA **pake-* AI ‘crack nuts’)
- (48c) PA **kwetawa·ni* ‘firelog’ (PA **kwetawe-* AI ‘try to make fire’)
- (48d) Mun *á·man* ‘rope’ < ‘*fishing line’
 (PEA **ame-* AI ‘fish with hook and line’)

The noun final PA **-en* is distinct from a secondary noun final PA **-inay* (> PEA **-inay*) that marks collective nouns (49a) and (with the third person prefix) indefinite possessor (49b). In a few cases this also makes nouns from verbs (49c), but without umlaut on AI stems. When PEA **-ak* anim. pl. followed there was apparently irregular contraction: PEA **-inay-ak* → PEA **-ina·k*.

- (49) Noun final PA **-inay* collective, indefinite possessor
- (49a) Collective:
- Mah *wəhkamāwīnay* ‘heaven’, *wəhkamāwīnāk* ‘in heaven’
 (cf. *wəhkamāw* ‘day, *sky’)
 Mun *oxkwe·wī·nayał* ‘women (obv.)’
 (cf. *oxkwé·wal* ‘woman, women (obv.)’);
 Mun *wi·mātəsi·nayał* ‘his brothers (obv.)’
 (cf. *wi·mātəsal* ‘his brother, brothers (obv.)’);
 Mun *mātan·to·wī·ne·nk* ‘in hell’
 (cf. *mātán·to·w* ‘devil’; *|-ənk|* loc.)
 Mes *aša·hina·ki* ‘in Sioux country’ (cf. *aša·ha* ‘Sioux’;
 perhaps backformed: *aša·hina·wi* ‘Sioux country’)
- (49b) Indefinite possessor:
- Mes *onehkinawi* ‘one’s hand’ (Goddard 1995:124-126)
 Mass *wəṭənan* (⟨wuttaunin⟩) ‘a daughter’,
wəṭənanəyək (⟨wuttauninneunk⟩) ‘the daughters’ (< PEA **wəṭānīnāk*)

- NUn *wanaxki·n* 'a hand' (<wunachgin> "thou hand" [i.e., voc.]);
wte·hi·na·k (<Wdehinak>) 'hearts'⁶⁷
 WMah *wnaxkīn* (<Wunachkin>) 'a hand';
wčăčqhkwinqk (<utschitschächquénăāk>) 'souls'

(49c) Noun final added to verbs:

- Ill *takwaha·naya* 'pemmican (pl.)' (cf. 47a)
 Mun *ăpi·nay* 'bed' (|api·-| 'sit'),
o·té·nay 'town' (PA *o·te·- 'dwell together'),
á·nay 'road' (|a·-| AI 'go')

There is some secondary differentiation of the functions of this suffix, and some convergence with the noun final **-en* is evident. The **-ay* is dropped before the inanimate plural suffix in Massachusetts (Mass *otānaš* <otanash> 'cities'; cf. stem |otānay-| in the derived prenoun *otāna(y)i* <otanae>), a characteristic of all inanimate nouns with stems in |ay|: Mass *wiškwaš* (<wishquash>) 'vessels, bottles' (stem |wiškway-| in the prenoun *wiškwa(y)i* <wishquie>); < PA *wi·rkwayi 'bladder'). The **-ay* is also dropped in the locative of the word for 'town' in Unami (*o·t·é·nink*), Narragansett (<Otânick>), and one Massachusetts dialect (*otānət* <otanit>, beside *otānāt* <otanat>). In Mahican and Delaware *wə·i·n* (without *-ay*) marks indefinite possessor (perhaps backformed from the irregular animate plural **wə·i·na·k*), while *-i·nay* adds a collective meaning to nouns and came to be used in Munsee to pluralize obviatives.⁶⁸ It may be worth pointing out that the Munsee nouns made from verbs with this suffix (49c) are all prototypically used collectively. (The word that now means 'bed' originally referred the communal sleeping platform; cf. 14d.) The use of this suffix on the Illinois word for 'pemmican' (49c) must be secondary on the evidence of the cognate form in Meskwaki (47a).

The animate plural suffix NUn *-a·k*, Mah and Mass *-qk*, used with the inflection for indefinite possessor (NUn and Mah *-i·n*, Mass *-ən(y-)*) was apparently the source of the identical suffix used after certain other suffixes ending in *-n*. In all three languages an animate plural secondary object is marked with this suffix after the singular and indefinite n-suffix *-ən*: SUn (some speakers) *kəmi·li·na·k* 'you (sg.) gave them (anim.) to me' (Goddard 1979a:154, 160); WMah *əšta mīməxpīwənaqk* (<astà mémach-

67. Phonemicized with long *a·* on the basis of Mahican and Massachusetts.

68. A parallel development in Massachusetts cannot be established because the language lost word-final PEA **-ay* by sound law.

péūnāāk)) ‘they (anim.) don’t make one sick’ (Masthay 1991:126),⁶⁹ Mass *kəwəčəŋəm wāhənyək* (⟨kəwədchanumwáheneunk⟩) ‘you (sg.) make me keep them (anim.)’ (Eliot 1666:59). The same Southern Unami speakers who have *-a·k* in these forms also have it after the first person pluralizer in the TA and in possessed-noun inflection: SUn (some speakers) *ntəla·wəná·na·k* ‘we (exc.) say {so} to them’, *ntami·mənsəməná·na·k* ‘our (exc.) children’. The antiquity of this feature in Unami is uncertain, however, since it appears to be absent from Ira Blanchard’s 1837 translation of the harmony of the gospels and from C.F. Voegelin’s materials obtained from Willie Longbone in the 1930’s. The inflections for inanimate secondary object have no trace of **-ay* in any language, like the plural of inanimate nouns with stems in *|-ay|* in Massachusetts.

Pentland (1999:251) takes apparent PEA **-na·k* for animate plural secondary object (< PA **-nay-aki*) as cognate with the inflection in a dialect of contemporary Maniwaki Algonquin (Jones 1977:71): Nipissing O *nitata·we·na·k* ‘I sell them (anim.)’. This Nipissing ending is isolated within Ojibwe, however, and in fact is not even used by “some” other speakers at Maniwaki, who say *nitata·we·nak* ‘I sell them (anim.)’ (Jones 1977:72). Both sets of speakers, apparently, agree on the corresponding inflection for an animate singular object, Nipissing O *nitata·we·na·* ‘I sell him’ (also Cuoq 1886:65), which matches Old Algonquin: OAlg *nimihkawina·* ‘I remember him’, *nimihkawin* ‘I remember it’ (Daviault 1994:158, 213; cf. Anonymous 1 n.d.: [17]). But Old Algonquin actually has a third pattern of inflection, marking plural secondary objects with *-ik* and *-ir*: OAlg *nitipe·rintama·ke·nik* (⟨nitibérindamákénik⟩, unglossed) ‘I govern using them (anim.)’, *kitipe·rintama·ke·nir* (⟨kitibérindamákénir⟩, unglossed) ‘you govern using them (inan.)’ (Anonymous 2 n.d.: [15]). And Lemoine (1911) confirms none of these, attesting a fourth pattern: EO *[nimikka]win* ‘I remember him’, *[nintata·]we·n* ‘I sell him, it’. There is even a fifth pattern in Southwestern Ojibwe: SwO *nimikkawinan* ‘I remember him’, *omikkawinan* ‘he remembers him’, *nimikkawin* ‘I remember it’ (Baraga 1850:329-330, 1853:233; Nichols 1980:113-114). In the face of this variety, one ending in one modern subdialect cannot be taken as the oldest Ojibwe inflection simply because it matches some

69. Cf. Mun *|moxpwi-|* AI(+O) ‘have indigestion (from)’: *nəmóxpwi·n* ‘it gives me indigestion’.

Eastern languages, especially given that an AI+O paradigm O *ni-na* 1s–3s, *ni-na-k* 1s–3p matches the ordinary TA direct inflection (O *ni-a* 1s–3s, *ni-a-k* 1s–3p) and could have assimilated to it at any time. The same assimilation to the TA direct took place in the Shawnee AI+O paradigm for animate secondary objects (Goddard 2006:187, ex. 16e), and in fact such forms were reanalyzed as having TA stems in *-n*, with these new TA stems being used for additional forms: Sh *noʔšina* ‘I (woman) marry him’ (PA **weʔši-* AI), *nitpapina·ki* ‘I sat on them (anim.)’ (PA **aspapi-* AI), *howi·wina·li* ‘he married her’, *we·wi·wina·ta* ‘he who marries her’ (PA **wi·wi-* AI(+O) ‘have (as) a wife’).

The suppletive third person suffix in the m-suffix set, umlauting PA **-w*, is homophonous with a suffix that makes noun stems from AI and II stems, TA inverse themes, and TI themes (Bloomfield 1962:242–243; Goddard 1974:325, 1990:473).

Similarly, the suffix **-entay*, which marks the Cree-Montagnais preterite, appears to be identifiable with the suffix **-entwiy* that derives nouns from AI stems. The verbal use is not found in other languages⁷⁰ but appears to be an archaism: it is inflected with three prefixes and bare pluralizers without a formative element, effectively usurping the slot in which this would appear. The same umlaut of stem-final **e* to **a* that occurs before the preterite inflection in Cree is also found before this suffix when used in derivation.

(50) PA **-entay* in inflection and **-entwiy* in derivation

(50a) Cree preterite:

nipimohta·htay, *nipimohta·h* ‘I walked’ (|pimohte·-| AI)
opimohta·hta·wa·w ‘they walked’

(50b) Derived nouns:

Mes *ki·škahowa·ti* ‘sword’ (*-ti* < **-tiyi*)
 (← *|ki·škahowe·-| AI ‘hack people up’)
 Men *pe·hcekona·h*, *pi·hcekona·htiy* ‘medicine bundle’
 (← *|pe·hcekone·-| AI ‘have or put feathers inside’)
 Mun *wa·lhá·ntəy* ‘cellar, pit, cache’
 (← |wa·lahe·-| AI ‘dig a hole’)

70. As Pentland (1988:49–50) has pointed out, an apparent use in Old Algonquin must be a borrowing from Old Montagnais. Some languages appear to use this suffix in the conjunct order with various types of future reference (Proulx 1990:138; Goddard 1993:231–233).

Ar *ni·bô·t*, *ni·bô·tinó* (<*niibóót*>, <*niibóótinó*>) 'song, songs'
 (← *ni·bei-* AI 'sing' [*néni·béino* 'I sing'] + |-[?]tin|)

CONCLUSIONS

The reconstruction of formative elements in all forms of the independent indicative dovetails with the evidence that the same elements made nouns from verbs. If these verbal inflections originated in derived nouns, with and without possessors, the suffixes that derived these nouns from verb stems would be present throughout the new verbal paradigms. Furthermore, we would not expect these derivational suffixes to have acquired pronominal and syntactic functions when restructured as formative elements; the difficulty of assigning such meanings to them would be explained and the attempt to do so could reasonably be abandoned.

The formative elements, now resegmented as components of inflection, distinguish sets of suffixes. The selection of these suffixes is determined by morphology and in some circumstances obligatory and non-contrastive. The key factor is the contrast between absolute endings, which lack a peripheral suffix indexing a second verbal argument, and objective endings, which include a peripheral suffix. If there is no peripheral suffix indexing a second verbal argument, an *m*-suffix is used. (A peripheral suffix after the third person *m*-suffix |-w|_m indexes the same argument, and, in fact, the singular suffixes were not used after the modal suffixes.) If there is a peripheral suffix indexing an animate primary object or inverse subject, a *w*-suffix is used as the central suffix. In all other cases the central suffix used before a peripheral suffix is an *n*-suffix. (The possibilities are that a peripheral suffix after an *n*-suffix may index an inanimate primary object or inverse subject, or an animate or inanimate secondary object.)

The selection of the peripheral suffix is, of course, syntactic. The peripheral suffix refers to a specific third person, which may be definite or anaphoric, or both. The structure of the third person *m*-endings, with the central and peripheral suffixes both marking the subject, is explained by the fact that subjects are prototypically specific if not anaphoric. Similarly, the fact that the subject of a passive (in Algonquian, the object of a verb with an indefinite subject) is also prototypically definite explains why there are no absolute verbs with indefinite subjects and third person objects.

If independent indicative verbs are nouns in origin, the existence of

absolute verbs outside the third person is an anomaly, since Proto-Algonquian did not have nouns that lacked a peripheral suffix. But the structure of the verbs explains this. The peripheral suffixes were in some ways like demonstrative pronouns or definite articles, and in an earlier grammar that the independent verbs reflect they were optional on nouns. The emphatic pronouns (8) and some particles (6a) survive as examples of such nouns. The sister language Blackfoot has another apparent survival, the optional inflection of nouns in a non-referring or non-particular form that does not distinguish gender, number, or obviation (Frantz 1991:10-11); this is marked by a suffix $|-i|$, distinct from $|-yi|$ inan. sg. In Blackfoot, however, a possessed noun must be grammatically particular, and the emphatic pronoun inflects as an ordinary animate noun.⁷¹

PARADIGMS

The revised reconstructions proposed for the independent indicative are summarized here in paradigms for the AI (51), TA direct (52), and TI Class 1 (53).

(51) AI in Proto-Algonquian and Proto-Eastern Algonquian

	PA consonant stem	PA vowel stem	PEA
1s	* <i>ne-e</i>	* <i>ne-</i>	* <i>nə-</i>
2s	* <i>ke-e</i>	* <i>ke-</i>	* <i>kə-</i>
3s	* <i>-wa</i>	* <i>-wa</i>	* <i>-w</i> ⁷²
1p	* <i>ne-ehmena</i>	* <i>ne-hmena</i>	* <i>nə-(ə)hməna</i>
12	* <i>ke-ehmena</i>	* <i>ke-hmena</i>	* <i>kə-(ə)hmən</i>
2p	* <i>ke-ehmwa</i>	* <i>ke-hmwa</i>	* <i>kə-(ə)hmwa</i>
3p	* <i>-o·ki</i>	* <i>-waki</i>	* <i>V]-wak, C]-o·k</i>
X	* <i>-ehmi</i>	* <i>-hmi</i>	(replaced by * <i>-(ə)n</i>)

(52) TA direct in Proto-Algonquian and Proto-Eastern Algonquian

	PA absolute	PA objective (singular object)	(plural object)
1s	* <i>ne-a</i>	* <i>ne-a·wa</i>	* <i>ne-a·waki</i>
2s	* <i>ke-a</i>	* <i>ke-a·wa</i>	* <i>ke-a·waki</i>

71. Pentland (1999:235, n. 15) reconstructs PA **ni·lawi* 'I', but all the languages with a reflex (except Blackfoot) support **ni·ra* (8) and his rule of final-syllable loss would not apply to a three-syllable word.

72. PEA **-wa* after stems consisting of a single short-vowel syllable; **-Ø* after a consonant other than **k*.

3s	*-e·wa	*we-a·wari	*we-a·wahi
1p	*ne-a·hmena·	*ne-a·wena·na ⁷³	*ne-a·wena·naki
12	*ke-a·hmena	*ke-a·wenawa	*ke-a·wenawaki
2p	*ke-a·hmwa·	*ke-a·wa·wa	*ke-a·wa·waki
3p	*-e·waki	*we-a·wa·wari	*we-a·wa·wahi
X	(none)	*-a·wa	*-a·waki
	PEA absolute	PEA objective (singular object)	(plural object)
1s	*nə-a	*nə-a·w	*nə-a·wak
2s	*kə-a	*kə-a·w	*kə-a·wak
3s	*-e·w	*wə-a·war	*wə-a·wah
1p	*nə-a·hməna	*nə-a·wəna	*nə-a·wəna·nak
12	*kə-a·hmən	*kə-a·wən	*kə-a·wənawak
2p	*kə-a·hmwa	*kə-a·wa	*kə-a·wa·wak
3p	*-e·wak	*wə-a·wa·war	*wə-a·wa·wah
X	(none)	*-a·w	*-a·wak

(53) T1(1) in Proto-Algonquian and Proto-Eastern Algonquian

	PA absolute	PA objective (singular object)	(plural object)
1s	*ne-e·	*ne-a·ni	*ne-a·nari
2s	*ke-e·	*ke-a·ni	*ke-a·nari
3s	*-amwa	*we-a·ni	*we-a·nari
1p	*ne-e·hmena·	*ne-a·ne·na·ni	*ne-a·ne·na·nari
12	*ke-e·hmena	*ke-a·ne·nawi	*ke-a·ne·nawari
2p	*ke-e·hmwa·	*ke-a·ne·wa·wi	*ke-a·ne·wa·wari
3p	*-amo·ki	*we-a·ne·wa·wi	*we-a·ne·wa·wari
X	(none)	*-a·ni	*-a·nari

	PEA absolute	PEA objective (singular object)	(plural object)
1s	*nə-am	*nə-amən	*nə-amənar
2s	*kə-am	*kə-amən	*kə-amənar
3s	*-am	*wə-amən	*wə-amənar
1p	*nə-aməhməna	*nə-aməne·na	*nə-aməne·na·nar
12	*kə-aməhmən	*kə-aməne·n	*kə-aməne·nawar
2p	*kə-aməhmwa	*kə-aməne·wa	*kə-aməne·wa·war
3p	*-amo·k	*wə-aməne·wa	*wə-aməne·wa·war
X	(none)	*-amən	*-amənar

73. Assuming the non-contraction of 26b in the first plural endings.

The II is like the AI third person but with the peripheral suffixes PA **-i* inan. sg. (> PEA **-∅*) and **-ari* inan. pl. (> PEA **-ar*), subject to the same contraction in the plural after a consonant.

In Proto-Algonquian the TA inverse objective had the inflections of 52 with PA **-ekw* TA th. 2 instead of PA **-a* TA th. 1 (Goddard 1967:94). The TA inanimate-subject objective had the inflections of 53 with PA **-ekw* TA th. 2 instead of PA **-a* TI(1) th., like the paradigm in Goddard (1967:94) but with the formative element **-ene* before all pluralizers. The TA passive and the endings with themes 3 (PA **-i* first person object) and 4 (PA **-eθ* second person object) were as in Goddard (1967:94) but with the pluralizers of 51 and most likely PA **-eko* for X-1s and X-2s. A TA inverse absolute for first and second person objects is reconstructible only for the inanimate-subject paradigm (Goddard 1974:322);⁷⁴ the absolute inflections for third person proximate objects and animate obviative subjects are in Goddard (1967:94).

A suffix PA **-ri* obv. after the stem or theme sign marked an otherwise proximate third person central suffix as obviative (Bloomfield 1946:97-98); the languages differ in details and some reconstructions are uncertain.

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74. Pentland (1999:241, 259) gives the TA inverse absolute as used with any lower-ranking subject, but the supporting data referred to show only inanimate subjects with first and second person objects.

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