Eastern Algonquian as a Genetic Subgroup  
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0. This paper surveys some of the innovations that are shared by the Eastern Algonquian (EA) languages but not assignable to Proto-Algonquian (PA) and that may accordingly be assigned to an intermediate common language (Meillet 1925:15), Proto-Eastern Algonquian (PEA), from which the Eastern languages separately descend. Elsewhere I have discussed which of these features appear to demonstrate that EA is a separate genetic subgroup of Algonquian (Goddard 1979, 1979a) and have argued against claims to the contrary (Pentland 1979). Here I will adopt as an hypothesis the reality of PEA and will show how PEA differed from PA and attempt to give an idea of the usefulness of this hypothesis for explaining the relative homogeneity of the Eastern languages. Not all the innovations discussed are unique to the Eastern languages, but all are assignable to PEA; in them the Eastern languages appear to behave like a single language rather than like a random assortment of languages descending from PA. (The poorly documented extinct languages must, of course, be classified in EA on the basis of what data are available.)

1. Most of the PA consonants come into PEA unchanged: PA *p, *t, *k, *s, *g, *m, *n, *w, *y, *h > PEA same. (For special treatments in clusters, see below.)

1.2. PA *g and *l (except in clusters) fall together to PEA *r (the phonetic values of these units are uncertain). It has been claimed (most recently by Siebert 1975) that PA *g and *l are reflected separately in Powhatan, *g becoming t (falling together with PA *t) and *l becoming r. I have elsewhere outlined my reasons for believing that this conclusion rests on a misinterpretation of the data (Goddard 1979a:103-5), but it is appropriate here to review in detail the evidence that supports the following conclusion: If the Powhatan words in Strachey's two manuscripts, taken in the transcription of Wright and Freund (1953:174-207), are compared with their PA etyma, a tabulation of the results shows that there is no statistically valid contrast between the representations of the reflexes of PA *g and *l. Both PA phonemes show up as r and t intervocally, r and s word-finally (and after */h/ in reflexes of PA *l), and t word-initially; there are also some minor variations (notably ht). The necessity of taking as a starting point a transcription of Strachey that is uninfluenced by preconceptions about Algonquian etymology is made clear by cases like Mexersc "the haire of the head," which Siebert (1975:347) transcribes as netesse and hence is able to compare to PA *ni-ge=gi. A word-for-word examination of the British Library manuscript and the photographs (Harrington 1955) of the Bodleian manuscript has made clear to me the almost letter-perfect reliability of the Wright and Freund readings; their only systematic error is the failure to note the macron indicating omitted nasals, and...
there is reason to believe this was the printer's fault.

Examples with PA *θ reflected by orthographic "r" or "rr" word-medially: (1) oringleis "feet of a hawk" (183; < PA *we-θenŋy- 'hand, finger'). (2) pahquarra "a spark of fier" (184), pahgwurraow "sparkes that glister" (201; < *-eŋe- II 'blaze, burn'; cf. M -eŋe-, -ahkonŋe- 'blaze'; Mu wi-.nkəl-w 'it blazes nicely'; Ar heéʔ ih-beéséʔee 'it was blazing high'). (3) ourcar "a grave" (186; 193; < *wa-θeeka-ni 'dug hole'). (4) maangairagwatowh (BL) "a great hole" (188; < *mank-a-θakatwi; cf. M ena-ŋakat 'it has an opening thus'. The Cree reflexes of *wa-θ- [-whence *-a-θ-] prove *θ.). (5) wawirak "the horns of a deare" (188; < *wi-θi-θaki 'horns' [Goddard 1979a:117-8]). (6) parance "5. in nomber" (197; cf. paranske [Smith 1910, 1:45; Barbour 1969, 2:333]; < *napaθe- -neθk- 'arm on one side'; cf. C napate-niske-w 'he holds on with one hand', O napane-ник 'the other arm'). This etymology is indirectly recognized by Siebert (1975:311), but apparently rejected because of the "r". Andrew White's Piscataway (Conoy) napazanz (presumably for -nzk) and probably Lawson's Pamlico umperren show the cooccurrence of *na- (dropped irregularly in some languages but by sound law in Unami) and *-neθk-, assumed by Siebert to be in complementary distribution. (7) nekereinskeps "a ring" (199; apparently a first singular verb form 'I am wearing arm-bands' < *keθ-(i)neθk(e-) 'arm', *-πiso 'be tied'; cf. U kali-nxke-p-i 'arm garter', also without mutation of PEA *r < PA *θ). (8) musswowuxuc ("x" an error for "r"), musswawuruc "a ship" (200; < *meθe-θakw- 'wooden boat', or *meθ-θakw- 'large boat'). (9) mereengass "a shooting glove" (201; < *me-θenŋy-; cf. ex. 1). (10) nummeraantaan "to spew or cast" (201; actually 'I vomit' [,"spew" and "cast" both meant 'vomit']), though with unclear ending; < *meθ- [objectless TI]; cf. F me-mématam [reduplicated; BAE-AR 40:198.43]; Mi målandamani 'I vomit (conjunct)'; Mass [Cotton] menattam; U melantam; also PA *meθe- AI: M me-mentw [redupl.]; Sh ma-mele [redupl.]; Ar beθeθeeno 'I vomit' [stem beθeθe-]). (11) cutterah "to tell one any thing" (203; probably 'you tell him' < PA *keθe-a-wa or another form from *eθ-). (12) matakennowntorowh "I understand not" (205; i.e. 'I don't hear, understand you (sg.)' < PEA *mata kanontöröwī < PA *no-ntaw- TA 'hear' plus -eθ [theme 4] and other morphemes). (13) weracke (Bo) "the yard of a rackone" (BL) (205 ["yard" meant 'penis']; < PA *wi-θak(ay)i 'his penis; animal penis'; see Goddard [1979a:104, 118]). (14) keseireindcher "to wash the hands" (205; presumably 'wash your (sg.) hands!' < PA *kesi-θenŋye-lo). (15) cacutterewindg keir "what is your name" (206; < PA *keθe-a-wa or another form from *eθ-) and a reshaping of the AI final PEA *-inswī [ < PA *-inso] 'be named' influenced by *winswī-AI [ < PA *wi-nsnso-]; cf. U luwē-nsu 'he is named thus' [with vowel change]; Mass ussowesu [/asawi-saw/ or the like, with /as-/ as if from PA *aθs-, by mutation from PA *eθ-].

Examples of PA *θ reflected by orthographic "t" or "tt" word-medially: (16) atomoisi, atomois "a dog" (175, 181; < PA *aθemw-). (17) opatenaik "an eagle" (182; < *wa-θ- anye- 'have white tail-feathers'; cf. Siebert
(18) meteingeies "the fingers" (183; < *me-th-enęg-y-). (19) numeisutteingwah "the fore-finger," nuttawwuteindg "the long finger," nummeisutteindg "the little finger" (183; all three words presumably to be taken as having -tteindg 'finger' < PA *-th-enęg-y-). (20) otenigas "a glove" (185; better read as oteingas < *wet-enęg-y-; cf. exx. 1 and 9). (21) otakeisheheis "the gutts of any thing" (186; < *we-thakeęg-y- 'entails, bowls'). (22) metinge "a hand" (192; < *me-th-enęg-yi). (23) attaangwassowk "a star" (202; < *a-sa-w-k-). (24) utshowwah "the stones of any male thing" (202; < *we-thewihi 'his testicles'). (25) uketegwaivtteindg "the thumb" (204; with -tteindg < *-th-enęg-y-; cf. Delaware [Zeisberger] kitthukquewulinschawon 'thumb'; Mu namoxohkwe•walanę 'my thumb'). (26) ottaneis, otaneis "the traine of a bird" (204; < *wa-th-any- 'bird's tail'). (27) tawatuttener "to yawn or gape" (207; < *ta-thaw-).

Examples of PA *th reflected by orthographic "ht": (28) ohtindge "the claw of a crab" (179; < *we-th-enęg-yi 'his hand; animal's hand'). (29) meihtinge "a hand" (187; < *me-th-enęg-yi 'a human hand'). (30) ahtur "it stinketh" (189; < *a-sa-thwa 'he is rotten, rotting'; cf. Mu alél; PA *a-th- is reflected by C at- 'rotten', as in C asto-yiw, [Lacombe] asto-yow; Algonquin atto-no [archaic; Cuqoj]; EAb nedatt8ri [1 sg.; Râle]). (31) arrokoth "the skie," mammau arrawgutuwh "the clowds," poomp arrathqwatuwh "the element" (175, 180, 182; first parts of second and third entries uncertain but remainder < *a-laxkwatwi 'there is a) cloud'; cf. the forms cited by Siebert [1975:324] and Ar hiinoon6et 'cloud'). (32) arigwossac "aunts" (176; i.e. 'ants' < *e-liikwehsaki).

(33) ahtowrun "to make a..boate" (193; < *a•to-lwa 'he makes a canoe'; cf. C [Faries] asto-yiw, [Lacombe] asto-yow; Algonquin atto-no [archaic; Cuqoj]; EAb nedatt8ri [1 sg.; Râle]). (34) numeramin "to smell" (201; actually 'I smell it', exact cognate of Mu nəmelə•mən, U nəmelə•mən < PA *mela•m- Class 3 TI beside *mela•w- TA [widely remade as if *mela•nt- Class 1 TI, *mela•m- TA, but note PA *mela•w-ekwesi-AI > C miya•kosiw 'he smells', M meno•kosew 'he stinks').

Example of PA *l reflected by "r" or "rr" word-medially: (35) outacan "a dish" (181; < *wela-kani; the "t" is absolutely clear in both manuscripts [Goddard 1979a:104, 118]).

Examples of PA *th reflected by "r" and *l reflected by "r" word-initially: (36) rassegwocatuwh "a grayne or croty" (186; the correct reading is "crotch" and "grayne" is Grain sb. 2 in the OED [the grains 'the fork of the body']; < PA *gə•gəw- 'fork(ed)' [cf. C tastaw-; O nassaw-; Sh lə•gəw-; Mu ləxaw-] plus medial -ka•t- 'leg'). (37) racawh "sand" (200; < *le-kawi). For Siebert's one example of alleged "t" from *th-, see Goddard (1979a:118, n. 42).

Examples of PA *th and *l reflected by word-final "r": (38) mushowr "the ships" (186; < PA *mehθ•o•θ- or *meθ•o•θ- [cf. ex. 8]; cf. Narr mishi{oon 'dugout canoe'). (39) mangeker "the height of any thing at a good growth" (188; i.e. 'he is big' or the like; < *mank-ekiθ- AI, as in F makekinwa 'he is big', beside the common *meθ•ekiθ•wa [> C misikitiw (reshaped); Mu xwa•ki•l]). (40) woowr "a hole" (188; < *wa•θ-; cf. C wa•tii). (41) See the final consonant in ex. 30. (42) peintiker "to come in" (180; i.e. 'come in!' < *pi•ntwike•lo).
(43) See the final consonant in ex. 14. (44) near 'I' and 'you (sg.)', etc. (206, etc.; < *ni·1a and *ki·1a).

Examples of PA *θ and *l reflected by "s" word-finally:
(45) kennehautows "I understand well" (205; miscopied for *kennowntows [see the entry that follows this, cited above as ex. 12]; i.e. 'I hear, understand you' < PA *ken·no·nto·θe).1
(46) mawhcasuns "shoes" (201; < *maxkesenali). Inanimate plural *-ali seems always to be reflected as "-s," undoubtedly under the influence of the plural -s of the language of the English recorder; note also the many plural nouns in the vocabulary of Smith (1910, 1:44-6; Barbour 1969, 2:331-4), which to judge by the sample sentences is somewhat jargonized.

A few examples could be added to these lists from John Smith (e.g. [46] attonce "arrowses" < *aθw-ens-) and by making obvious emendations to some entries in Strachey (e.g. in [47] nummecaxuttenar "to fight at fisticuffes" [p. 184] the "x" must be a miscopying of r [cf. ex. 8], with *-mecarutte- reflecting PA *mi·ka·θ-etwi-'fight each other'). But if examination is limited strictly to the words appearing in Strachey's vocabulary as edited by Wright and Freund (counting the three adjacent and related entries for 'name' [p. 206] as one example of "r" from *θ and the three adjacent words for fingers [p. 183] as one example of "tt" from *θ), the correspondences tabulate as follows: Word-medially PA *θ is reflected by orthographic "r" or "rr" 15 times, by "t" or "tt" 12 times, and by "ht" 3 times. Word-medially PA *l is reflected by orthographic "r" or "rr" 4 times and by "t" once. It is clear that these figures provide no basis for concluding that PA *θ and *l had different reflexes in Powhatan; in view of the small number of PA etyma with *l, no significance can be attached to the fact that the ratio of "r" to "t" reflexes is 4/1 rather than the 3/2 that might have been expected from the ratio in the much larger set of examples with *θ. The reflexes in initial and final position also show no differentiation.

If the word-medial reflexes are tabulated by etymon rather than by entry the results are as follows: Etyma with *θ are reflected with "r" or "rr" 11 times, with "t" or "tt" 6 times, with "ht" once, and with "r," "k," "tt,"" and "ht" once (in the 8 examples reflecting PA *-θenγy- 'hand, finger'). Etyma with *l are reflected with "r" or "rr" 4 times and with "t" once. The relatively large number of etyma showing "r(r)" from *θ is worth noting and further confirms the lack of any significant difference between the sets of representations of the reflexes of PA *θ and *l.

Finally, two cases of dual reflexes may be considered that confirm that "r" and "t" could be written for the same Powhatan segment, even if the PA source is not established beyond question: (48) nimatewh "a man" (193), nemarough "a man" (Smith 1910, 1:44, Barbour 1969, 2:331) (cf. Mahican /ni·mana·w/, recorded as n'neemanâoo, nemanau, etc.; perhaps < PA *nyi·m-aθ•-w- 'one who carries with him a penis'). (49) mattoume 'a wild grain' ('Mattoume groweth as our bents do in meddows. The seede is not much vnlike to rie, though much smaller. This they use for a dainty bread buttered with deare suet.' [Smith 1910, 1:58; cf. Barbour 1969, 2:347]), pausarowmena 'roasted corn' (Smith 1910, 1:62; Barbour 1969, 2:351) (< PA *maLo·mini 'wild
rice or the like', medial and noun final *-aLo-min- 'grain', used in some Eastern languages to refer to corn [e.g. Mu wá-palo-m 'white corn']; PA *L [i.e. *θ or *l] in this word is almost certainly *l [Goddard 1979a:117, n. 40]).

These Powhatan data on their face show that PA *θ and *l were both reflected by segments sometimes recorded as "r" and sometimes as "t," as well as "s" word-finally; they give no basis for the claim that *θ and *l were kept distinct. Plausibly, the Powhatan reflex of PEA *r (< PA *θ and *l) was a type of flap /r/ (and hence most commonly written as "r"), but subject to optional devoicing that led English-speaking recorders to write it sometimes as "t" ("tt") or "ht" word-medially and as "s" word-finally (and after /h/). There is no need for an elaborate and untenable hypothesis of an otherwise unknown letter having the value of "t" but the shape of "r," "in general, but by no means...invariabl[y] distinguishable from "r" (Siebert 1975:293), and rather curiously used in the documents only to write the Powhatan reflex of PA *θ--never to write the reflex of *t or English t.

1.3. PA *y after a consonant is lost in PEA. Some noun stems in PA *-Cy are restructured to PEA *-Cay, others show up as stems in PEA *-C. The languages seem generally to agree on which nouns are treated which way, but no complete tabulation has been made; there are some disagreements. I now reject the idea that PA *-Ci and *-Cya were reflected by PEA *-Cay by sound law (Goddard 1979a:97-98), and I would explain the stems in PEA *-Cay from PA *-Cy as analogical to stems in PEA -Cay from PA *-Ci (a development that was according to sound law), with which they would have shared some inflected and derived forms; for example the locative in PA *-Cinki to stems in PEA *-Cy and the locative in PA *-Ci-nki to stems in PEA *-Cy would both have become PEA *-Cink. In support of this, it seems to be the pattern that the PA stems in *-Cy that show up with PEA *-Cay are on semantic grounds especially likely to be used in the locative, and those with PEA *-C are either less likely to be common in the locative or more likely to be found with obviative or plural endings (before which postconsonantal *y would have been lost). Munsee, for example, has mpáy 'water'; áhkéy 'earth'; mškéy 'scab'; páméy 'grease'; wálakšéyal 'intestines'; mohk(w)améy 'ice'; but kók 'your mother' (< PA *kekya); nxám 'my daughter-in-law' (< *ne?emya); óhpéy 'potato' (< *wexpenya); áhlápak 'flax plants' (< *Indian hemp < hempen nets ["net of yarn"--18th cent.] < PA *a'lapyaki 'nets'; cf. the evidence for former *-Cy in the diminutive áhlápí-s 'Indian hemp (fiber)'); ásán 'stone' (< *a'senyi); níhkášak (< *nexkanšyaki [Goddard 1979a:79, 108]). Some Eastern languages also extend *-ay to certain monosyllabic nouns unetymologically: EAb sáti 'conifer' (cf. PEA *šant < PA *šenta; Siebert 1967:27); Narr mishqué 'blood' (cf. PEA *méçkw [shown by Mu móhkw, U mhúkw] < PA *méçkw); Mass pukquee 'ashes' (cf. PEA *pákw [shown by Mu pónkw, EAb pónkw] < PA *penkw).

1.4. PA *w after a consonant generally remains in PEA, with certain exceptions. In some cases PA *we between consonants gives PEA *ō, but analogy and new formations have obscured the details. Except where *we is continued by PEA *ō under these conditions, PA *w drops after *t, *n,
*θ, and *l. Also, PA *w after any consonant is lost if followed by *e (> PEA *a) plus a labial or labialized consonant or cluster (*p, *m, *w, *kw, or *p- or *kw-cluster); for examples, see Siebert (1975:315, 354). Apparently associated with the change of PA *nw to PEA *n is the replacement of PA *kenw- 'long' (*kaka·nw- pl.) by PEA *kwan- (*kwa·kwân- pl.).

2. Reduction in the number of contrasts among consonant clusters is a general feature of the histories of all Algonquian languages, and hence shared patterns of merging are not particularly strong evidence for subgrouping. Nevertheless, when the histories of the Eastern languages are treated together, certain shared developments in the clusters can be assigned to PEA.

2.1. Among the *k-clusters the only merger that can be assigned to PEA is that of PA *xk and *ik. A conjectural phonemicization of the PA *k-clusters and their PEA reflexes is given in Table 1 (for some discussion of the phonemicization of reconstructed clusters, see Goddard 1979a:76-78).

### Table 1

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<th>Proto-Algonquian Symbolization</th>
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To avoid confusion, however, I will continue to use Bloomfield's symbolizations of the first members of these clusters in both PA and PEA.

2.2. The PEA reflexes of the PA *p-clusters pattern the same way as the *k-clusters except for PA *čp, which appears to fall together with PA *θp or *šp (cf. Mass pashp- < PA *pašp- [Goddard 1974:106]).

2.3. PA *t-, *č-, *s-, and *š-clusters lose the contrast between PA *čC and *hC, both becoming PEA *hC. PA *nC remains as PEA *nC.

2.4. PA *θ- and *l-clusters appear to show a unique pattern of mergers in PEA. PA *nθ, *nl, and *o1 all become PEA *hr, while PA *hθ, *h1, and *oθ fall together to what may be written PEA *hx but was perhaps not distinct from PEA *hš. (The putative PEA *hx may have had a reflex distinct from that of PEA *hš in Powhatan or Massachusetts-Narragansett, or both.)

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The unique feature is that PA *'9 and *'l have distinct reflexes in PEA even though *'9 and *'l have merged. The treatment of *nl, *n9, and *hl is a little less certain, given the restricted occurrence of these clusters. One problem is the Massachusetts reflex of *nl, which appears to be /n/ in the only two examples, both TA stems: ussowenau 'he names (him) thus' (/asawInaw/, univerbation of PA *e8i plus *wi.nle.wa); n8nāog 'they nurse (them), suckle (them)' (< PA *no.nle.waki). This /n/ is subject to mutation to /s/ (like /n/ from PA *'9): ussowes (/asawIs/) 'name him thus'. If this /n/ from PA *nl is by sound law it would be far out of line with the developments in the other EA languages. More likely, the mutating /n/ in 'name' represents an analogical reshaping that regularized the formal relationship of the TA to *ussowetam TI 'he names (it) thus' (cf. wutussowetamun /watəsawItaman/ 'he called it thus') and ussowesu AI 'he is named thus' (which now pattern like the common type with PA *-9 TA, *-t TI, and *-so AI). The /n/ in 'nurse, suckle' could then have been introduced under the influence of the reshaping in 'name' (the only other long-vowel monosyllabic TA stem in PEA *hr) and the form of the associated AI n8n- (e.g. n8nwog 'they suck, nurse' < PA *no.nwa sg.).

3.1. The PA vowel system of four short and four long vowels is reflected by a PEA system with two short vowels (*ə < PA *e; *a < PA *a) and four long (*I < PA *i and *i·; *o < *o and *o·; *e < *e·; *a < *a·). The asymmetric loss of the length contrast in the high vowels is unique to the Eastern languages and constitutes one of their striking shared innovations (Goddard 1979a:96-7). Also unique is the replacement of high vowels by PEA *ə before *w and *y in some cases (Goddard, forthcoming). For these changes, note for example Mu wi.pi tal 'his teeth' (< PEA *wIpItar < PA *wi.pitali) and Mu wšyō's 'meat' (< PEA *wəyawəhs < PA *wi.yawehsi).

3.2. Claims that PA *i· and *i are kept distinct in some extinct Eastern languages (Aubin 1972, 1978; Siebert 1975; Pentland 1979a) are not persuasive since they are not based on a demonstration that these protophonemes are kept apart in identical or comparable environments. It does seem to be the case in the southeastern New England languages that PEA *I in non-initial syllables was phonetically shortened in some cases (a development that perhaps resulted in some phonemic restructuring), and the Northeastern languages and Nanticoke also show some similar shortening, but there is no reason to think that PA *i was subject to this change while PA *i· was not. Since PA *i· is most frequent in initial syllables (from which *i was excluded) but relatively rare in medial syllables (in which *i was common), it is inevitable that any shortening process that affected medial-syllable vowels would result in an apparent pattern of PA *i· being reflected by a long vowel and PA *i by a short vowel. But when syllable position is taken into account, it is clear that, for example, the representations of the reflexes of PA *i· and *i in William Wood's vocabulary of Massachusetts (Aubin 1978:132-3) do not support even a prima facie case for there being a significant contrast between the treatments of these two PA units. The reflexes of PA *i in "seat" 'foot' (< *mesit- or the like), "matchemauquot"
it stinketh' (< PA *mačimya-kwatwi), and "mepeteis" 'the teeth' (< PA *mi-pitali) can hardly be cited as showing /i/ rather than /i/. There is shortening in word-final, closed, and probably unstressed syllables in "nitchicke" 'the hand' (< PA *me-genčy-ikan-), and "shannucke" 'a squirrel' (< *me'anyikwa), but the same treatment is found for PA *i- in "seasicke" 'a rattle snake' (< PA *ši-ši-kwe-wa). Furthermore, the recorders of other dialects give these vowels as long: Mass (Cotton) menutcheg 'hand', mishâneck 'a squirrel'; (Eliot) menutcheg 'hand', sesékg 'adder, viper'; Narr (Williams) wunnicheke 'hand', mishânneke 'squirrel!', sések 'rattle snake'.

4. The treatment of word-final sequences in PEA, by both sound laws and morphological restructuring, although sharing some features with some other languages, gives rise to a set of patterns and formations that have a number of distinctive details. Word-final vowels are lost, as in the majority of Algonquian languages, but the resulting word-final *-kw retains the *w, and final vowels are lost in disyllables, even short-vowel disyllables; this pattern is found elsewhere only in Montagnais. In spite of the loss of PA word-final vowels, however, PEA did have word-final vowels in certain morphological categories. The patterns according to which the final vowels were retained or restored are unique in a number of ways.

4.1. Stem-final (or theme-final) vowels are restored in the first and second person singular, independent indicative, of intransitive and transitive absolute verbs (Goddard 1979a: 99, 114); all vowels in these categories were long vowels in PEA: PA *netapi (stem *api-) is continued by PEA *natapi (*api-) 'I am there'; PA neki-ke (*ki-ke-) → PEA *nəkIkē (*kIkē-) 'I recover'; PA *nepyə (*pyə-) → PEA *nəpə (*pə-) 'I come'; PA *nene-wa (theme *ne-w-a-) → PEA *nənēwa (*nēw-ā-) 'I see (him)'; PA *kene-wi (*ne-w-i-) → PEA *kənēwē (*nēw-ī-) 'you (sg.) see me'. A similar pattern of stem-final vowel restoration is found in Ojibwa, but PEA differs in restoring PA long *a as word-final PEA short *a (as shown by Delaware and Eastern Abenaki).

4.2. The PA subjunctive ending *-e 'if, when (future)' is continued by PEA *-e: PA *pya-te → PEA *pate 'if he comes' (cf. U pā·tē). The source of this long vowel is uncertain, but perhaps it was preserved in complex modal endings such as the PA interrogative *-e-li 'whether, if ever, whenever (at whatever time)'. PA *-e-li appears to be in some way a pluralization (with inan. pl. *-li) of the subjunctive, just as iterative *-ili 'that ever, whenever (every time that)' is a pluralization of plain conjunct *-i 'that, when'. The uncertain origin of PEA subjunctive *-e makes it all the more striking as a shared innovation. Other cases in which PA *-e is continued by PEA *-ē are in the inanimate singular absorventive (see §5.4 below and Goddard 1979a:99-101) and in particles (a category that also retains PA *-i as PEA *-i). The retention of final vowels in particles, as in other languages, is probably due to sandhi phenomena.

Glyne Piggott has suggested (in an intervention after this paper was presented to the Eleventh Algonquian Conference) that cases of PEA *-ē from apparent PA *-e can be explained as regularly from PA long *-e-, if a word-final contrast in vowel length (lost outside EA) is
reconstructed for PA. Against this, however, is the apparent lack of any consistent correlation between PA final vowels independently known to be ultimately from long vowels and the cases of PEA final long vowels not explainable as due to trivial analogy (as in the verb stems and themes). Counterexamples are: (1) PEA third-person imperative *-č (Goddard 1979b:165, Foreword p. x) < PA *-čye, which would have given F **-či rather than F -če if it were not from pre-PA *čye; (2) PEA independent indicative indefinite subject *-(a)n < PA *-(e)na, which must be the word-final shortening of pre-PA *-(e)na. (Goddard 1974a:327).

4.3. Highly distinctive are the PEA developments in the plural markers of the central endings of the independent order and possessed-noun inflection (for the terminology, see Goddard 1979b:104 ff.). As seen in Table 2, these number markers were in PA *-ena·n-, *-enaw-, and *-wa·w-; they

Table 2
Development of plural number markers.

<table>
<thead>
<tr>
<th>Proto-Algonquian</th>
<th>Proto-Eastern Algonquian</th>
</tr>
</thead>
<tbody>
<tr>
<td>objective</td>
<td>absolute</td>
</tr>
<tr>
<td>1p *-ena·n-</td>
<td>*-Hmena</td>
</tr>
<tr>
<td>12 *-enaw-</td>
<td>*-Hmena</td>
</tr>
<tr>
<td>2p *-wa·w-</td>
<td>*-Hmwa</td>
</tr>
<tr>
<td>3p *-wa·w-</td>
<td>--</td>
</tr>
</tbody>
</table>

retained these shapes in the objective (and possessed-noun) paradigms, in which they were always followed by further morphological elements, but they were shortened to *-ena, *-ena, and *-wa in the absolute paradigms (including the AI and the TA you-and-me forms), in which they occurred in word-final position (an environment that permitted only short vowels [Bloomfield 1946:93]). In PEA these elements were restructured such that their word-final surface manifestations in both objective and absolute paradigms are identical. Although their word-medial shapes (used in objective paradigms before overt morphemes) reflect those of PA exactly (except that the *ə of *-əwa is analogical), their word-final shapes cannot be regular phonological developments from either the PA objective or absolute. A complex blending and restructuring seems to be indicated, which is (like the PEA subjunctive *-e) all the more striking as a shared innovation for being partially opaque in its details; if independent parallel innovations were involved the mechanisms would surely be straightforward enough to be obvious.

The forms that support the reconstructions given for the PEA plural number markers are in Table 3. The objective endings are those used in noun possession and the TA; the TI objective is treated below. The first-plural endings are reflected directly in all the languages exemplified; PEA *-a regularly gives Delaware and Abenaki -a, Mass and Mal -ə. (For the generalization of the exclusive or inclusive ending before overt peripheral endings, see Goddard 1979a:86). The
Table 3

Eastern Algonquian word-final plural number markers (except TI), phonemicized. EAb dialects: Can=Caniba, Pen=Penobscot. Reshaped forms are boxed.

<table>
<thead>
<tr>
<th></th>
<th>PEA</th>
<th>Mu</th>
<th>Mass</th>
<th>WAb</th>
<th>Can</th>
<th>Pen</th>
<th>Mal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1p, 12</td>
<td>*-əna</td>
<td>-əna</td>
<td>-ən</td>
<td>-əna</td>
<td>-əna</td>
<td>-əna</td>
<td>-ən</td>
</tr>
<tr>
<td>2p, 3p</td>
<td>*-əwa</td>
<td>-əwa</td>
<td>-əw</td>
<td>-əw</td>
<td>-əw</td>
<td>-əw</td>
<td>-əw</td>
</tr>
<tr>
<td>Absolute</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1p, 12</td>
<td>*-hməna</td>
<td>-hna</td>
<td>-mən</td>
<td>-pəna</td>
<td>-pəna</td>
<td>-pəna</td>
<td>-pən</td>
</tr>
<tr>
<td>2p</td>
<td>*-hmə</td>
<td>-hmə</td>
<td>-mwə</td>
<td>-pa</td>
<td>-pa</td>
<td>-pa</td>
<td>-pa</td>
</tr>
</tbody>
</table>

second- and third-plural objective ending is reshaped in Abenaki and Maliseet by replacing short *-a by the reflexes of long *a (WAB ə, EAb ə, Mal a); this change eliminates the allomorphy of this ending before suffixes in these languages, which have lost any reflex of the second *w of PEA *-əwəw-: e.g. WAB wəpaskhiganəwə 'their gun', wəpaskhiganəwəl 'their guns' (Laurent 1884:127, normalized). The second-plural absolute ending is similarly reshaped in the Penobscot dialect of Eastern Abenaki and in Maliseet, probably secondarily to the change in the corresponding objective ending. Mass */-mwəw/, if this is the correct phonemicization of orthographic -mwə, appears to have been renewed by the addition of the objective number marker.

4.4. Apparently by contamination with the development of PA *-ena̱n- to PEA *-əna (~ *-ənən-), PA conjunct first singular *-a.n- is continued by PEA *-a (~ *-ən-) (Goddard 1979a:99). This ending *-a is reflected by U, WAb, EAb -ə and Mass, Mal, Mic -ə; Munsee restores -a.n, from the forms with further suffixes.

5.1. A number of innovations in morphology may be assigned to PEA. The most extensive of these is the rebuilding of

Table 4

Development of the TA direct and TI (Class 1) endings, independent indicative.

<table>
<thead>
<tr>
<th>Proto-Algonquian absolute</th>
<th>Proto-Eastern Algonquian absolute</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 *-a</td>
<td>*-əw</td>
</tr>
<tr>
<td>3 *-e.wa</td>
<td>*-əwali</td>
</tr>
<tr>
<td>1 *-a</td>
<td>*-əni</td>
</tr>
<tr>
<td>TI 3 *-amwa</td>
<td>*-əni</td>
</tr>
<tr>
<td>1p *-a.Hməna</td>
<td>*-e.nəni</td>
</tr>
</tbody>
</table>
the independent order TI paradigms; this had the effect of regularizing the formal opposition between the absolute and objective endings, an opposition maintained as such only in some of the Eastern languages (Goddard 1967, 1974a). Table 4 shows the developments in both the TA and Class 1 TI paradigms; the boxed endings have been rebuilt. TA first-person singular (and second singular) absolute PEA *-a (> Mu -a) represents the restored theme sign PEA *-ā- (< PA *-a·-) with vowel shortening, exactly like the treatment of AI stems in PA *-a· (see above).

5.2. The generalization of PEA *-am as the theme sign of the Class 1 TI has been explained elsewhere (Goddard 1967: 79-80); the revised PEA paradigms in Table 4 reflect the new conclusions about PEA phonology and morphology presented in this paper. A significant revision is the reconstruction of the juncture vowel after *-am in the TI absolute as PEA *a (< PA *e; cf. Goddard 1967:79, 90 n. 43), as required by Delaware, Massachusetts, and Western Abenaki (Goddard 1974a: 322, 1979b: 66-7, 122-3). This rules out direct comparison with a similar innovation in Arapaho that Pentland (1979) has claimed shows the Eastern Algonquian innovation not to be unique. Arapaho has *-am followed by the juncture vowel *i extended to the first and second plural, while PEA has rebuilt the same forms with *-am followed by *e; compare with the forms in Table 4, Ar ne—owube 'we (exc.)—it, them (nonaffirmative)' (Kroeber; Salzmann has the older-looking ne—eebe [Goddard 1967:103]), in which -owu- must be the reflex of PA *-ami- (or *-amo). The difference in juncture vowel shows that the Arapaho and Eastern Algonquian innovations, though parallel in spirit, were independent; no part of the histories of the actual forms was the same in the two cases.¹⁰

This is consistent with the undisputed fact that the protolanguage from which Arapaho and PEA descend is PA, not an intermediate common language. In contrast, the extensive innovations in the TI shared by the Eastern languages, including the exact forms of the entire endings, can be reasonably explained only by deriving the Eastern languages from an intermediate common language that underwent these specific changes once and only once.

5.3. With the restructuring of the TI objective paradigm, the formative element generalized the shape PEA *-(e)nē before consonants; this replacement of the PA formative element *-(e)na· is also unique to the Eastern languages (Goddard 1974a:327, 1979b:121). The Eastern languages also use the TI objective endings (without peripheral, or object-marking, endings) as the central endings of a new mode, the subordinative, used for certain kinds of complement clauses (Goddard 1974a:320, 1979b:48-9, 106, 114, 153, 161, 168-9, 173, 177-80). Though this shows some similarity to the Menomini negative, it is clear that the Eastern languages resemble each other much more, in both the form and the function of this paradigm, than they do Menomini.

5.4. A distinctive innovation in Eastern Algonquian is the development of the absentative inflection, a set of peripheral endings that add to the marking of gender, number, and obviation on nouns and verbs an indication of absence, death, former existence, or the like. The forms
of the endings are given in Table 5; there is also a set used on demonstrative and indefinite pronouns that has *-k- added before the short endings and replacing the *-ank- of the long endings. An extended discussion is in Goddard (1979a: 100-1).

| Table 5 |
|---|---|
| **non-absentative** | **absentative** |
| **animate** | **oblitative** | **inanimate** | **animate** | **oblitative** | **inanimate** |
| **Singular** | | | | |
| *-0 | *-ar | *-0 | *-a | *-ankar(e) | *-ē |
| **Plural** | | | | |
| *-ak | *-ah | *-ar | *-ankak(e) | *-ankah(e) | *-ankar(e) |

5.6. A number of minor but distinctive morphological innovations are also assignable to PEA. The theme sign of the Class 1 TI, PA *-am, splits into PEA *-am (Class la) and *-om (Class 1b). The variant *-am apparently arose by sound law after the TI finals *-as 'heat', *-aš 'cut', and *-an 'hold, handle' when followed in turn by the formative element *-an(e) (Goddard 1979b:71, forthcoming §6.8).

5.7. The conjunct first-person plural exclusive ending PA *-a·nk (used in the AI, TI, and TA Theme 4) is continued by PEA *-enk (> U -enk; EAb, Mal -ek). Probably this reflects contamination with the vowel of second-person plural PA *-e·kw (> *-ekw), but even if it must be left unexplained it is distinctively an Eastern Algonquian development (Goddard 1979b:125, 131).

5.8. The conjunct third-person animate *-t (~ *-k after stems and themes in a consonant) is pluralized by a preceding PEA *-hätI, making the ending complex *-hätIt. This contrasts with the conjunct third-plural ending complex *-twaw- or *-wawt- reflected by the Central languages and Cheyenne. PEA *-hätIt arose as a paradigmization of the derivational-suffix complex PA *-h-etwi-, which marked the reciprocal (*-etwi) of the causative (*-h TA) of AI verbs. This suffix complex is found in some isolated forms in the Central languages in what appear to be lexicalized collective plurals (Goddard 1979a:102, 116 n. 37, and references there), but it is incorporated into the inflectional paradigm only in the Eastern languages, which use it in the TA and TI as well as the AI: PEA *-āhastī t‘hey--him, them (conjunct)’ > U, Mu -āhti‘t, Mass -āhettit, WAb -ōōdit (i.e. -qādit, normalized), EAb -ahstīt, Mal -ahtīt, Mic -ațiţj (Pacifique).

5.9. The Eastern languages also share some morphological changes that, while not unique in Algonquian, are nevertheless most easily explained as being shared innovations in PEA. For example, the independent order TA passive of the first and second persons replaces the theme sign PA *-eko- by PEA *-ekē and drops the PA singular ending *-Hmi (> F, Sh -pi). A parallel replacement of the theme sign is found in Menomini (Goddard 1967:85, 1979a:86).

6. In summary it may be said that what is striking, even in the cases in which the innovations are not unique, is
that the Eastern languages again and again are seen to be innovating as a group, as though a single language. In contrast, comparable sets of shared innovations cannot be discovered for the Central languages or for other groupings. The only way to account for this phenomenon is to postulate an intermediate common language, PEA, from which the Eastern languages descend.

NOTES

1 The forms and glosses are given as they appear in Wright and Freund (1953), followed by a page reference to that edition; within each set they are given in the order in which they appear. Capital letters are ignored. Generally only one variant is given, except where the difference between the manuscripts seems significant in some way; in such cases the form in the British Library manuscript (BL) is given first and that from the Bodleian manuscript (Bo) second. Many of these etymologies agree with those in Siebert (1975), though the readings often do not. I have tried to include all etymologies that appear to be obvious without emendation of the sources, though it cannot be said that all details of the cited forms are yet clear. The following abbreviations of language names are used before cited forms: Ar=Arapaho; C=Cree; EAb=Eastern Abenaki; F=Fox; M=Menomini; Mal=Maliseet; Mass=Massachusetts; Mi=Miami; Mic=Micmac; Mu=Munsee; Narr=Narragansett; O=Ojibwa; Sh=Shawnee; U=Unami; WAb=Western Abenaki.

2 I omit two adjacent entries with forms of 'name' using the same stem. These expressions appear to be jargonized, with frozen inflectional affixes. Cf. Smith (1910, 1:44; Barbour 1969, 2:331): ka ka torawincs yowo "What call you this."

3 Siebert (1975:399) reads the stem differently in exx. 12 and 45, but gives the same reading and etymology of the theme sign; his explanation of the "r" as analogical is otiose.

" These figures supersede those in Goddard (1979a:103).

5 The PA noun stems in PA *-Cy and *-Ci also fall together to a single class in Fox, Cree, and Ojibwa. In Cree both types show up with -Ci in most cases, which has its inherited contraction of liiyi to i-. In Fox and Ojibwa the uninflected singulatns of both origins have the shape appropriate to stems in PA *-Cy, as do apparently the forms with suffixes beginning with *-a- (assuming F -ye- and O -i- are regular treatments of *-ya- between consonants); the forms with suffixes beginning with *-e- show the contraction to *-i- (F -i-, O -i-) originally appropriate to the stems in *-Ci. In Fox the two classes would have fallen together by sound law in the inanimate singular, where -C is regular from both *-Ci and *-Ci; animates in PA *-Ci appear to remain as such (e.g. F
mi·twiya 'quaking aspen'). In Ojibwa the point of overlap was the inanimate singular of short-vowel monosyllabic stems in *-Cy and the singular of stems with *-Ciy: e.g. O akki 'earth' (< PA *axkyi), O apwi 'paddle' (< PA *apwiyi); other short-vowel monosyllabic-stem inanimates also appear to be assimilated to this class: O anwi 'bullet' (< PA *a̱wí 'arrow'), pl. anwi·n.

6 The Delaware reflex of PA *θk is |xk| and the Delaware reflex of PEA *hš and *hx (as here conjectured) is |x|. These treatments suggest the possibility that PEA had an */x/, and since an additional continuant is needed to keep the reconstructions of the PEA clusters separate from one another, PEA */x/ has tentatively been used for this purpose.

7 The proposed Powhatan etymologies with PA *nθ and *nl (Siebert 1975:426; Pentland 1979:39) are unconvincing.

8 There is even less evidence that PA *o and *o· remained distinct in any Eastern language when in comparable environments; in part this has to do with the ambiguous status and at best rare occurrence of PA short *o. The details are complex.

9 Furthermore the restoration of the stem vowel in the Ojibwa AI took place (or was completed) only in the historical period, since seventeenth-century grammars have forms without it: Old Algonquin nimakissinik (/nimakkisinikk/) 'I make shoes' (Hanzeli 1961:134, 210, 1969:69, 106); c.f. O (Baraga) nimakkisinikke· 'id.'

10 The PEA absolute and the O psAI (Goddard 1967:72-3, 89 n. 24) both extend the theme sign *-am to the first and second singular after the loss of final vowels, but that these are parallel independent innovations is shown by seventeenth-century Ojibwa forms in which this change has not yet taken place: Old Algonquin nitep8et (/nite·pwe·tt/) 'I believe' (Hanzeli 1961:214; curiously garbled in Hanzeli 1969:108); cf. O (Baraga) ninte·pwe·ttam 'id.' But this analogy and that cited in note 9 are trivial compared to those in the PEA TI paradigms.

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