Work over the past three decades has identified several diachronic sources from which accusative and ergative patterns develop. Language-internal processes that can lead to ergative categories are described in Anderson 1977, 1988, Chung 1977, 1978, Payne 1979, Trask 1979, Garrett 1990, Gildea 1998, and elsewhere. Less is known about the spread of ergative patterns through language contact, though Nichols 1993 notes that ergativity is disproportionately frequent in certain areas of the world, particularly in Australia and Eurasia. Heath 1978 discusses the spread of ergative morphology in Arnhem Land, and Fortescue 1997 proposes that the Chukotkan ergative construction is the result of contact with the neighboring Siberian Yupik. Beyond these studies however, examples are relatively rare of the contact-induced development of ergativity.1

An intriguing puzzle is provided by three small language families of the Oregon Coast: Alsea, Siuslaw, and Coosan. All disappeared during the twentieth century. The northernmost, Alsea, consists of a single language represented by two dialects: Yaquina, last spoken around 1900, and Alsea proper, whose last speaker died around 1951. The most important published documentation of the language is in texts in Frachtenberg 1917 and 1920. Frachtenberg also completed a grammar in 1918 which remains unpublished. Analyses of the Alsea material are in Pierce 1966 and especially Buckley 1988a, b, and 1989a, b, c. Siuslaw also consists of a single language with two dialects: Siuslaw proper, whose last speaker died around 1960, and Lower Umpqua, whose last speaker died in 1957. The major published Siuslaw material is a volume of Lower Umpqua texts in Frachtenberg 1914 and a grammatical sketch in Frachtenberg 1922. The Coosan family consists of two languages: Hanis, whose last known speaker died in 1972, and Miluk, whose last speaker died in 1961. Published Hanis materials comprise texts in Frachtenberg 1913 and Jacobs 1939, 1940, and a grammar in Frachtenberg 1922. Publications on Miluk consist of notes in Frachtenberg 1914 and texts in Jacobs 1939 and 1940. Guides to all extant material on the languages, largely wordlists, are in Grant 1997 and Mithun 1999.

1 Helpful comments were provided by Andrew Garrett and Sally Thomason.
The three families are not yet considered demonstrably related genetically, though possible relationships have long been discussed. James Owen Dorsey, who collected short vocabularies of Alsea and Siuslaw during a month at the Siletz Reservation in 1884, noted similarities between those two languages. Alsea and Siuslaw were accordingly combined into a stock called Yakonan in Powell 1891, which was further linked to the Coosan languages by Sapir in his hypothesized Coast Oregon Penutian group in 1922. Frachtenberg, however, who carried out the most extensive work with speakers of all of the languages, felt the mergers to be premature (1922: 437). Pierce 1966 echoed this view, pointing to dissimilarities among even the first ten numerals.
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Cardinal numbers as published in Pierce 1966: 385

<table>
<thead>
<tr>
<th></th>
<th>Alsea</th>
<th>Siuslaw</th>
<th>Hanis</th>
<th>Miluk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>xam</td>
<td>alq</td>
<td>yixé:</td>
<td>ḥići</td>
</tr>
<tr>
<td>2</td>
<td>xedlk</td>
<td>xá:tsu</td>
<td>yuxwé</td>
<td>aśú</td>
</tr>
<tr>
<td>3</td>
<td>psintl</td>
<td>šin:x</td>
<td>yıp党总</td>
<td>psintl</td>
</tr>
<tr>
<td>4</td>
<td>tsu:nk</td>
<td>xá:tsu:n</td>
<td>hëšddł</td>
<td>ḥisawa</td>
</tr>
<tr>
<td>5</td>
<td>su:dá:st</td>
<td>dľáps</td>
<td>kát’mis</td>
<td>kquntcinsi</td>
</tr>
<tr>
<td>6</td>
<td>łaqá:i:st</td>
<td>qátimx</td>
<td>yixéwicq</td>
<td>ḥisawa’qkaiye</td>
</tr>
<tr>
<td>7</td>
<td>xédlk łaqá:i:st</td>
<td>xatsuqtá:mx</td>
<td>yuxwéwicq</td>
<td>psintl</td>
</tr>
<tr>
<td>8</td>
<td>psintl łaqá:i:st</td>
<td>šin:xqtá:mx</td>
<td>yixé:hēł</td>
<td>aśúan</td>
</tr>
<tr>
<td>9</td>
<td>xamwa</td>
<td>álq:xt</td>
<td>yuxwéhēł</td>
<td>ḥlisian</td>
</tr>
<tr>
<td>10</td>
<td>sãutist</td>
<td>kixs</td>
<td>dlepáñi</td>
<td>ïistši</td>
</tr>
</tbody>
</table>

Certain lexical similarities can be seen across the languages, but the words are generally so close in form that the resemblances have been attributed to borrowing. The question of relationship remains open. Further comparative work is in Morgan 1985, Buckley 1987, Golla 1997, and Grant 1997.

All three families show ergative case marking. Ergative patterns are not entirely uncommon in the West; they can be found throughout the Eskimo-Aleut family, in Tsimshianic, to a limited degree in Salishan, in Sahaptian, and in Chinookan. The patterns in the various families are dissimilar, however, appearing in different areas of their grammars and involving markers of different shapes, suggestive of distinct diachronic origins. But the Alsea, Siuslaw, and Coosan ergative constructions all consist of ergative case marking on nominals. Furthermore, the ergative markers themselves are nearly identical in shape: Alsea q/̣, Siuslaw q, Hanis ḥ, and Miluk ḥ.

(2) Alsea: Frachtenberg 1920: 40.23, 50.21, 50.22

   not ever just motionless stays the Coyote
   ‘But Coyote [ABSOLUTIVE] never remained motionless.’

b temúhu: ya:sau ̣yá:mx q=as mó:łuptsini:sla as qatsi:li:?
   so.then again.told.him ERG=the Coyote the wolf
   ‘And then Coyote [ERGATIVE] frequently told Wolf [ABSOLUTIVE] ...’

---

2 The data cited here are drawn from Frachtenberg’s materials unless noted. The materials are impressive, particularly given the early date and relative brevity of fieldwork. Transcription is broadly phonetic. Some symbols, standard for the time, have been replaced with their current Americanist counterparts, but there is no phonological reanalysis, because individual forms do not always contain sufficient information. Replacements include a for his e, i for ı̄, ai for a,i, au for a,u, : for ‘, p for pl, i for tl, k for kl, * for ‘, k for k, s for c, x for x, and ? for ‘. Buckley 1989 provides a reanalysis of Alsea phonology, Hymes 1966 of Siuslaw, and Pierce 1971 of Hanis.
c. *temūhu: kēa tsimai:-nx q=as gatsiliː\?*
so.now indeed tries-it ERGATIVE=the wolf
‘Then, indeed, Wolf [ERGATIVE] put it on.’

(3) Siuslaw (Lower Umpqua): Frachtenberg 1914: 100.1, 56.1-2, 100.12

a. *Mi-lá-aitin hitsis qáai.*
kin-mother-my in.house was.inside
‘My mother [ABSOLUTIVE] lived in a house.’

b. *Wáːitxaux ántsotsʰa̱x mi-lá.*
they.two.told.her they.two.their kin-mother
‘Then they two kept on telling their mother [ABSOLUTIVE], …’

one old.woman kept.her ERGATIVE-kin-mother-my
‘My mother [ERGATIVE] kept one old woman [ABSOLUTIVE] (in the house).’

(4) Hanis Coos: Frachtenberg 1913: 80.19, 64.13, 80.20

a. *Emi:hel le hu:mik-ša*
blind the old.woman-ENDEARMENT
‘The old woman [ABSOLUTIVE] was blind.’

b. *Aːyu ił sisínt le wíngas hu:mik.*
indeed they visit the spider old.woman
‘Indeed, they went to see Spider Old Woman [ABSOLUTIVE].’

c. *Sqats he wáłwal le-x hu:mik-ša*
seize.TRANS the knife the-ERGATIVE old.woman-ENDEARMENT
‘The old woman [ERGATIVE] seized the knife.’

(5) Miluk Coos: Jacobs 1940: 159.12-13, 156.2, 158: 10-11

a. *Heːmátisi á:yu-kwi-dáʔitš dāh λe-di:huːt*
really he.was.there that the young man
‘To be sure, the young man [ABSOLUTIVE] was already there.’

b. *Tsú λe di:huːt gu:swídu-kwiːhúːx:at λe de-x éstis*
now the young man they.mocked.him the his-ERGATIVE person
‘All his people mocked the young man [ABSOLUTIVE].’
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c. *wi:guskwimánkt*  
*he.defeated.them.all*  
*then* the young man  
*defeated them all.*

The ergative pattern has penetrated the grammars, without visible splits between different aspects or tenses, or between main and subordinate clauses. But the ergative case markers appear only with independent nominals (nouns and independent pronouns), not with bound pronominal clitics or affixes. Neither ergative nor absolutive categories govern syntactic patterning.

The striking similarity in shape among the ergative case markers could hardly be an accident. An obvious explanation is language contact. The Northwest Coast is a well-known culture and linguistic area, with numerous shared traits. When Europeans arrived, the speakers of Alsea proper, Yaquina, Siuslaw, Lower Umpqua, Hanis, and Miluk lived along adjacent 10-20 mile stretches of the Pacific coast. There was extensive contact, multilingualism, and intermarriage (Zenk 1990a,b). In the second half of the nineteenth century, groups were moved onto reservations, where contact was even more intense. Frachtenberg collected his Alsea, Lower Umpqua (Siuslaw), and Hanis Coos materials all at the Siletz Reservation. It is not surprising that effects of the longstanding, close contact should be discernible in the languages. But we can see more: traces remain of the origin and spread of the ergative patterns.

1. **The Siuslaw ergative marker** *q-*: a loan from Alsea

The Siuslaw ergative prefix *q-* appears only on certain nouns and on first and second person independent pronouns. The Alsea and Coos ergative markers appear with all nominals. The Siuslaw nouns with ergative *q-* fall into a clear category: they are all kinship terms, like ‘mother’ in (3). Many are strikingly similar in form to their Alsea counterparts. (The prefix *mi-* is a kinship marker.)

(6) Some kinship terms: Frachtenberg 1920, 1922

<table>
<thead>
<tr>
<th>Siuslaw</th>
<th>Alsea</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>mi-tá</em></td>
<td><em>ta:</em></td>
</tr>
<tr>
<td><em>mi-lá</em></td>
<td><em>li:</em></td>
</tr>
<tr>
<td><em>m-a:tí</em></td>
<td><em>ha:</em></td>
</tr>
<tr>
<td><em>m-u:sk</em></td>
<td><em>mátsik</em></td>
</tr>
<tr>
<td><em>mi-sí.ai:</em></td>
<td><em>sa:</em></td>
</tr>
<tr>
<td><em>meklì:</em></td>
<td><em>makl</em></td>
</tr>
<tr>
<td><em>mín:</em></td>
<td><em>mun</em></td>
</tr>
<tr>
<td><em>tá:maxt</em></td>
<td><em>temxt</em></td>
</tr>
</tbody>
</table>

Kinterms would be easily borrowed under the attested patterns of intermarriage. (Coos in-law terms are similar, with Hanis *mi-tšlin-* ‘father-in-law’ and *mík*- ‘son-in-law’, but the others are not, such as *ék*‘father’ and *e*n-* ‘mother’.}

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Siuslaw independent pronouns also show the ergative prefix $q$-.

(7) Siuslaw ergativity in independent pronouns

a. $k\text{ix}$áí  $ná$.
alone
'I [ABSOLUTIVE] was alone.'  

b. $Tsí:k\text{yan}x$  $q$-$ná$ $síaxyu:ts$.
very.thou ERGATIVE-I like.thee
'I [ERGATIVE] like you very much.'

c. $Ni$-xts  $Háí$
you eat
'You [ABSOLUTIVE] are eating.'

well=thou take.care.of.continually-me ERGATIVE-thou
'You [ERGATIVE] will have to take good care of me.'

The Siuslaw first and second person pronouns consist of a root denoting person ($na$ 1, $ni:x$ 2) followed by an ending similar in form to the subject enclitics. These pronouns can be inflected with the prefix $q$- for ergative case. The third person pronouns, based on demonstratives, show a different ergative marker $-s$. All pronouns also have objective forms, marked by $-t\check{s}$. (Epenthetic vowels are inserted in some contexts to break impermissible consonant clusters.)

(8) Siuslaw basic independent pronouns: root + ending: 1922: 576

<table>
<thead>
<tr>
<th>BASIC</th>
<th>ERGATIVE</th>
<th>ACCUSATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>$na$($han$)</td>
<td>$q$-$ná$($han$)</td>
<td>$ná$-$t\check{s}$</td>
</tr>
<tr>
<td>1</td>
<td>$na$-$ns$</td>
<td>$na$-$t\check{s}$-$èns$ ‘you and I’ (1+2.DU)</td>
</tr>
<tr>
<td></td>
<td>$na$-$nl$</td>
<td>$ná$-$t\check{s}$-$ènl$ ‘you all and I’ (1+2.PL)</td>
</tr>
<tr>
<td></td>
<td>$ná$-$uxun$</td>
<td>$ná$-$t\check{s}$-$auxun$ ‘we two’ (1+3.DU)</td>
</tr>
<tr>
<td></td>
<td>$na$-$nxan$</td>
<td>$ná$-$t\check{s}$-$in\check{nxan}$ ‘we all’ (1+3.PL)</td>
</tr>
<tr>
<td>$ni:x$-$ats$</td>
<td>$q$-$ni:x$-$ats$</td>
<td>$ni:x$-$ats$ ‘you’ (2.SG)</td>
</tr>
<tr>
<td>2</td>
<td>$ni:x$-$ts$</td>
<td>$ni:x$-$t\check{s}$-$èts$ ‘you two’ (2.DU)</td>
</tr>
<tr>
<td></td>
<td>$ni:x$-$ats$-$èts\check{i}$</td>
<td>$ni:x$-$t\check{s}$-$t\check{š}$ ‘you all’ (2.PL)</td>
</tr>
<tr>
<td>$seå$</td>
<td>$seå$-$g$</td>
<td>$sea$-$ìna$($-t\check{s}$) ‘this/he/she’ (3.SG)</td>
</tr>
<tr>
<td>3</td>
<td>$seå$-$ux$</td>
<td>$sea$-$ìna$-$t\check{s}$-$aux$ ‘they two’ (3.DU)</td>
</tr>
<tr>
<td></td>
<td>$seå$-$nx$</td>
<td>$sea$-$ìna$-$t\check{s}$-$ènx$ ‘they all’ (3.PL)</td>
</tr>
</tbody>
</table>
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The origin of the accusative marker –tš can still be seen within the language. It is the regular allative case suffix that appears with nouns: haiq-tš ‘to the shore’.

The Siuslaw pronouns resemble those of Alsea, which also consist of a root specifying person followed by an ending. Alsea pronouns in all three persons are inflected for ergative case with the prefix q-, again with epenthetic vowels to break impermissible consonant clusters. There is a distinct set of objective pronouns, as in Alsea, but here they are formed by internal vocalic change.

(9) Alsea independent pronouns: Frachtenberg 1918ms: 114

<table>
<thead>
<tr>
<th></th>
<th>ERGATIVE</th>
<th>ACCUSATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>qan</td>
<td>qa-qan</td>
<td>qwon</td>
</tr>
<tr>
<td>qan-hast</td>
<td>qa-qan-hast</td>
<td>qwon hast</td>
</tr>
<tr>
<td>qa-nxan</td>
<td>qa-qan-nxan</td>
<td>qwon-nxan</td>
</tr>
<tr>
<td>qan-hal</td>
<td>qa-qan-hal</td>
<td>qwon-hal</td>
</tr>
<tr>
<td>nix</td>
<td>qa-ni:x</td>
<td>nix</td>
</tr>
<tr>
<td>nix-apst</td>
<td>qa-ni:x-apst</td>
<td>nix-apst</td>
</tr>
<tr>
<td>nix-ap</td>
<td>qa-ni:x-ap</td>
<td>nix-ap</td>
</tr>
<tr>
<td>qats</td>
<td>qa-qats</td>
<td>qots</td>
</tr>
<tr>
<td>qats-aux</td>
<td>qa-qats-aux</td>
<td>qots-aux</td>
</tr>
<tr>
<td>qats-ilx</td>
<td>qa-qats-ilx</td>
<td>qots-ilx</td>
</tr>
</tbody>
</table>

The second person root nix is identical to that in Siuslaw. Siuslaw apparently borrowed the second-person pronouns from Alsea in both basic and ergative forms, and the Alsea ergative prefix q- rode into Siuslaw with them. (The Coos independent pronouns are formed according to a different pattern, with different roots that are preceded by enclitics: Hanis ne=xkan ‘I’, ê=xkan ‘you’, xáke=‘s/he’, isne=xkan ‘we two (inclusive), etc’. They do not distinguish case.)

Did the adoption of the Alsea ergative marker create an ergative category in Siuslaw? Apparently not. Siuslaw noun morphology seems to have already operated on an ergative basis. Ergative case is indicated on other Siuslaw nouns by ablaut of the stressed vowel of the stem.

(10) Siuslaw ergative marking by á-ablaut: 1922: 570-2

<table>
<thead>
<tr>
<th></th>
<th>ABSOLUTIVE</th>
<th>ERGATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>í:</td>
<td>iyá</td>
<td>hi:tš</td>
</tr>
<tr>
<td>ú:</td>
<td>uwá</td>
<td>ikánú:k</td>
</tr>
<tr>
<td>á:</td>
<td>á:</td>
<td>swá:l</td>
</tr>
<tr>
<td>ái</td>
<td>ayá</td>
<td>háimu:t</td>
</tr>
<tr>
<td>V</td>
<td>Vá</td>
<td>qwótšay</td>
</tr>
<tr>
<td>VCC</td>
<td>VCáC</td>
<td>tsxúnpli:</td>
</tr>
</tbody>
</table>

‘person’
‘screech owl’
‘grizzly’
‘all’
‘beaver’
‘coyote’
(11) Siuslaw ablauted ergatives

   how wonder always.travels person bad.in place.in
   ‘How can a person [ABSOLUTIVE] travel in a rough place?’ 1914: 12.10

   he.will.assemble.them those many person
   ‘He was going to assemble many people [ABSOLUTIVE].’ 1914: 7.1

   bad.ERGATIVE person.ERGATIVE devour.them
   ‘A bad person [ERGATIVE] was devouring them.’ 1914: 15.2

2. The Alsea ergative marker *x*: a loan from Coosan

The story can be traced back further. Frachtenberg notes (1918ms: 21) that the Alsea ergative marker alternated freely between *q* and *x*. Speaker William Smith, for example, used both *qaqän* and *xaqän* ‘I’ (ERGATIVE) in the same tale (1920: 52.19, 40.12). The source of the Alsea ergative can be seen in Coosan.

In the Coosan languages, the marker *x*, which appears either as a proclitic to the noun or enclitic to a determiner, also serves as an ablative and instrumental.

(12) Hanis *x*

a. *x=qwántšime: x ma: hanʃ e’kwini:i:*.
   ERGATIVE=last people shall they see.thee
   ‘The last generation [ERGATIVE] shall see you.’ 1913: 10.6

b. *kwi:le:i-tš y=dji:*
   ABLATIVE=sweathouse-in I=came
   ‘I came from the sweathouse.’ 1922: 323

c. *kwĩn-t x=milaqtstå*
   shoot.TRANSITIVE INSTRUMENTAL=arrow
   ‘He shot at him with an arrow.’ 1913: 22.16

Frachtenberg noted the similarity in form and in phonological patterning.

Three of the six prefixes found in this language—namely the local [ablative], discriminative [ergative], and modal [instrumental] *x*—must have originally expressed one general idea incorporating these three concepts, because the phonetic resemblance between [them] is too perfect to be a mere coincidence. (Frachtenberg 1922: 319)

The resemblance suggests a common diachronid origin. In fact circumstances leading to the development of the ergative category can still be discerned.
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Subjects in Hanis are specified by proclitics before the verb.

(13) Hanis pronominal proclitics on verbs

a. **AGENT SUBJECTS**

   \[ n \text{=} \text{lowitat} \quad \text{‘I ran’} \quad 1913: 92.5 \]
   \[ e? \text{=} \text{lowitat} \quad \text{‘you ran’} \quad 1913: 92.8 \]
   \[ \text{lowitat} \quad \text{‘(he/she) ran’} \quad 1913: 92.12 \]

b. **PATIENT SUBJECTS**

   \[ n \text{=} \text{gáqal} \quad \text{‘I sleep’} \quad 1913: 40.2 \]
   \[ e? \text{=} \text{gáqal} \quad \text{‘you sleep’} \quad 1913: 102.1 \]
   \[ \text{gáqal} \quad \text{‘(he) sleeps’} \quad 1913: 102.8 \]

The full set of pronominal markers can be seen in (14).

(14) Hanis subject pronominal proclitics: 1922

\[ n= \quad \text{‘I’} \quad 1.\text{SG} \]
\[ i\theta= \quad \text{‘you and I’} \quad 1+2.\text{DU} \]
\[ x\text{win=} \quad \text{‘she/he and I’} \quad 1+3.\text{DU} \]
\[ \text{lin=} \quad \text{‘we all’} \quad 1.\text{PL} \]
\[ e?= \quad \text{‘you’} \quad 2.\text{SG} \]
\[ i\delta= \quad \text{‘you two’} \quad 2.\text{DU} \]
\[ \text{šin=} \quad \text{‘you all’} \quad 2.\text{PL} \]
\[ _- \quad \text{(he/she/it)} \quad 3.\text{SG} \]
\[ ux \quad \text{‘they two’} \quad 3.\text{DU} \]
\[ it \quad \text{‘they all’} \quad 3.\text{PL} \]

Third person singulars are unmarked, though dual and plural number for third person is indicated by particles. Transitive clauses with third person patients thus show the same pronominal marking as intransitive clauses.

(15) Hanis transitives with third person patients

\[ 1/3 \quad = \quad 1 \]
\[ 2/3 \quad = \quad 2 \]
\[ 3/3 \quad = \quad 3 \]

\[ n=\text{tó:hits} \quad \text{‘I hit (him/her/it)’} \quad 1913: 64.5 \]
\[ e?=\text{tó:hits} \quad \text{‘you hit (him/her/it)’} \quad 1913: 20.19 \]
\[ \text{tó:hits} \quad \text{‘(s/he) hit (him/her/it)’} \quad 1913: 20.19 \]
Marianne Mithun

ux n=tó:hits  ‘I hit them two’ 1922: 352
iţ e²=tó:hits  ‘you hit them all’ 1922: 352

If there is no lexical noun phrase third person subjects are not overtly specified.

(16) Hanis transitive with instrument: 1913: 168.20

\[ T\theta =_X \text{ milaq-} \text{-} \text{etš } tó:h- \text{-} \text{itš } \text{ le } \text{ tse} \text{-} \text{I } \text{ kwí} \text{-} \text{yo} \text{-} \text{ts.} \]

\[
\text{that}=\text{INST} \text{ arrow}-\text{with} \text{ hit-TRANSITIVE} \text{ the little dog}
\]

‘He hit the little dog with an arrow’

Such a situation could easily lead to the kind of reanalysis proposed by Garrett (1990), whereby marked instruments are reinterpreted as ergatives. ‘(He) hit the little dog with an arrow (INSTRUMENTAL) > ‘The arrow (ERGATIVE) hit that little dog.’ The Coos ergative \(x\) now appears with nominals that do not contain the suffix \(-etš\) ‘at/in/through/on/into’.

(17) Hanis ergative \(x\): 1913: 32.8

\[ x=qainé:s \text{ ka:s } tśxáu:w-at \text{ haʃ } tómi₇. \]

\[
\text{ERGATIVE}=\text{cold almost lie-CAUSATIVE that old.man}
\]

‘Cold weather [ERGATIVE] nearly killed that old man.’

A second construction could provide additional motivation for the reanalysis of obliques as ergatives. As noted above, third persons are unmarked by pronominal clitics, so transitive clauses with third person patients (1/3, 2/3) show the same pronominal morphology as intransitives (1=, 2=). In a number of languages, not all combinations of subjects and objects occur. In many of these, speech-act participants (first or second person) are strongly preferred as subjects: if a transitive event involves a first or second person, that participant is always cast as grammatical subject. To this end, transitive clauses with third persons acting on first or second (3/1, 2/3) are obligatorily passivized. This is the situation in Coos.

(18) Hanis pronominal marking on verbs: obligatory passives: 1922: 351

<table>
<thead>
<tr>
<th>3/1</th>
<th>1= . . . PASSIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/2</td>
<td>2= . . . PASSIVE</td>
</tr>
</tbody>
</table>

\[ n=tó:hits-u: \text{ ‘he hit me’ } (= \text{ ‘I was hit’}) \]
\[ e²=tó:hits-u: \text{ ‘he hit you’ } (= \text{ ‘you were hit’}) \]

With perfectives, the passive suffix \(-u\) usually follows a transitive suffix like \(-ts\) in (18). With imperfectives, the passive suffix \(-i:T\) directly follows the stem.
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(19) Hanis perfective and imperfective 3/1: 1922: 352

\[ n-\text{kw}i\text{n-t-i}: \quad n-\text{kw}i\text{n-i}: \]
1.SG=shoot.at-TRANSITIVE-PASSIVE 1.SG=shoot.at-PASSIVE
‘he shot at me’ ‘he was shooting at me’

Agents can be identified by nominals marked with the ablative/instrumental \( x \).

(20) Hanis 3/1 with agent: 1913: 24.14

\[ x=\text{lau} \quad \text{kw}\text{a}n\text{t} \quad \text{to}=n=\text{tsxew}e-i: \quad \text{te}=x \quad \text{h}u\text{mi}:.\]
OBL=that.one seems-will that=1.SG=kill-PASSIVE that-OBL woman
‘I may be killed by the woman’

Such passive constructions are the only means for expressing actions by a third person agent on a first or second person patient. They are thus used to describe what are understood as fully transitive events in all pragmatic contexts. The result is an inverse system, with the original passive suffix \(-u\) serving as an inverse marker. The \( x \)-marked oblique agents would be reinterpreted as core arguments of transitives: ergatives. The paradigm has been fleshed out with direct and inverse suffixes for relations between first and second persons.

(21) Hanis speech-act participants: 1922: 352, 1913: 104.12

\[
\begin{array}{llll}
2/1 & -a:is & 1/2 & -a:mi \\
2/1.SG & 2.SG=\ldots & -a:is & 1/2.SG & 2.SG=\ldots & -a:mi \\
2/1.DU & 1.DU=\ldots & -a:is & 1/2.DU & 2.DU=\ldots & -a:mi \\
2/1.PL & 1.PL=\ldots & -a:is & 1/2.PL & 2.PL=\ldots & -a:mi \\

e?=\text{kwi}nt-\text{a:is} & e?=\text{kilo:wi}t-\text{a:mi} \\
2.SG=shoot-2/1 & 2.SG=sec.want-1/2 \\
‘you shot me’ & ‘I want to see you’
\end{array}
\]

The inverse system was apparently not the sole source of the ergative category, since ergatives appear in transitive clauses with and without inverse marking.

3. The Siuslaw ergative category

We can thus trace the Siuslaw ergative marker \( q \)- through Alsea to Coos. But, as noted, the ablauted Siuslaw ergative nouns suggest that an older ergative pattern was already in place. Evidence within Siuslaw the origin of the category there.

In Siuslaw, core arguments are indicated by bound pronominal morphology that shows a nominative/accusative basis. Subjects are specified by enclitics attached to the first element of the clause, and objects by suffixes on the verb.
When the first element of the clause is the predicate, the verb stem is followed first by an object suffix and then a subject enclitic: \texttt{VERB-OBJECT=SUBJECT}.

(22) Siuslaw core arguments

\begin{enumerate}
\item \texttt{Yá:xa=nxan hu:tšui:} \begin{tabular}{ll}
much=1+3.PL.SUBJECT & play-will \\
\end{tabular}
\begin{tabular}{l}
\text{We shall play a great deal.}'
\end{tabular} \quad 1914: 23.8
\item \texttt{Yaʔkʰs=in tša:qáqa-u:n} \begin{tabular}{ll}
seal=1.SG.SUBJECT & spear.RDP-3.OBJECT \\
\end{tabular}
\begin{tabular}{l}
\text{I was spearing a seal.}'
\end{tabular} \quad 1914: 68.8
\item \texttt{xa-un=auxun ants mí:ka hitš} \begin{tabular}{ll}
kill-3.OBJECT=1+3.DU.SUBJECT & that bad person \\
\end{tabular}
\begin{tabular}{l}
\text{We killed that bad man.}'
\end{tabular} \quad 1914:96.8-9
\end{enumerate}

The full set of subject enclitics can be seen in (23).

(23) Siuslaw pronominal subjects

\begin{tabular}{llll}
\texttt{=in} & \text{‘I’} & 1.SG \\
\texttt{=ns} & \text{‘you and I’} & 1+2.DU \\
\texttt{=nl} & \text{‘you all and I’} & 1+2.PL \\
\texttt{=uxun} & \text{‘s/he and I’} & 1+3.DU \\
\texttt{=nxan} & \text{‘they and I’} & 1+3.PL \\
\texttt{=nx} & \text{‘you’} & 2.SG \\
\texttt{=ts} & \text{‘you two’} & 2.DU \\
\texttt{=tši} & \text{‘you all’} & 2.PL \\
\texttt{---} & \text{(he/she/it)} & 3.SG \\
\texttt{=ux} & \text{‘they two’} & 3.DU \\
\texttt{=nx} & \text{‘they all’} & 3.PL
\end{tabular}

There are just two object suffixes in Siuslaw: \texttt{-u:ts} for first or second person objects, and \texttt{-un} for third. (Epenthetic vowels prevent impermissible clusters.)

(24) Siuslaw object suffixes

\begin{enumerate}
\item \texttt{Anx-a-u:ts=atši}. \begin{tabular}{ll}
leave-alone-1/2.OBJECT=2.PL.SUBJECT \\
\end{tabular}
\begin{tabular}{l}
\text{‘All of you, leave me alone.’}
\end{tabular} \quad 1914: 27.5
\end{enumerate}
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If the object is dual or plural, the basic pronominal markers used for dual or plural subjects are added to the object markers.

(25) Siuslaw dual and plural objects

a. \( \text{lnáti}=nx \) \( \lambda \text{ehú}:y-ut:s-auxun \)
    always=2.SG hit-1/2.OBJECT-1+3.DU
    ‘You are always hitting us.’
    1922: 476

b. \( \text{temú}:u:n-anx=in \)
    assemble-3.OBJECT-3.PL=1.SG
    ‘I assemble them.’
    1922: 476

The shapes of the object markers are suggestive: -u:ts for either first or second person objects, and -un for third person objects. The initial element of each is reminiscent of Siuslaw passive suffixes, visible in lines ii and iii below.

(26) Siuslaw passives: 1914: 78.5-7

\begin{verbatim}
Qi:unomái  káai  peku:ya  xa:kái  káai.
winter.in many shinny.stick make people
‘In the wintertime people make many shiny sticks.’

kíx  tehq  xa:šáy-u:ne  ya:šáxä.
every what make-PASSIVE much
All kinds of things are made in great quantities.

arrow many and make-PASSIVE
Many arrows are made.’
\end{verbatim}

The second element of the first/second person object marker, -ts, matches the earlier form of the basic second person singular pronoun. This marker can still be seen in the Siuslaw independent pronoun nix-a-ts ‘you (SG)’. It has been replaced in the subject enclitic paradigm by the third person plural =nx, but the second person dual subject enclitic remains =ts. The first/second person object marker -u:ts thus resembles a passive with second person subject.

It appears that Siuslaw, like Coos, required passivization whenever a third person acted on a first or second (3/1, 3/2): the way to say ‘he hit you’ was ‘you were hit by him’. As the only grammatical means for expressing such a two-

1914: 28.3
participant event, the structure could easily come to be understood as a basic transitive. The sequence of a passive suffix plus second person (patient) subject would have accordingly been reanalyzed as a second person object marker. The same form was apparently extended to mark first person objects as well.

The structural reanalysis from passive to active transitive is not yet complete in Siuslaw. When a third person acts on a first person (3/1) or a second (3/2), the subject enclitic still refers to the patient, the earlier passive subject.

(27)  Siuslaw patients as subjects: 3/1 and 3/2

a. *wáa-u:-ts=*\text{\textasciitilde}in
   
   \begin{align*}
   &\text{tell-1/2.OBJECT=1.SG.SUBJECT} \\
   &\text{He told me.}
   \end{align*}

b. *yixáy-u:ts=*auxun
   
   \begin{align*}
   &\text{sec-1/2.OBJECT=1+3.DU.SUBJECT} \\
   &\text{He is looking at us two.}
   \end{align*}

c. *kixú-y-u:ts=*anx
   
   \begin{align*}
   &\text{know-1/2.OBJECT=2.SG.SUBJECT} \\
   &\text{He knows you.}
   \end{align*}

The same relic occurs when a first person singular acts on any second person (1.SG/2): the original second person patient subject of the passive is still subject.

(28)  Siuslaw patient subjects

\begin{align*}
&sæatsiti=\text{\textasciitilde}nx & wáay-u:ts \\
&\text{thus=2.SG.SUBJECT} & \text{tell-1/2.OBJECT} \\
&\text{Thus I tell you.}
\end{align*}

When obligatory passives were reanalyzed as active transitives, marked oblique agents would have been reinterpreted as core arguments, namely ergatives.

\begin{align*}
&\text{VERB-PASSIVE-PATIENT.SUBJECT} & (+ \text{SUBJECT}) & + \text{OBLIQUE.AGENT} \\
&\text{VERB-OBJECT.1/2} & (+ \text{ABSOLUTIVE}) & \text{+ ERGATIVE.AGENT}
\end{align*}

(29)  Siuslaw agents of new active transitives

\begin{align*}
&Wahúhau:n & hiyátsit & hiyatsits-u:n \\
&\text{again} & \text{cougar.ERGATIVE} & \text{put.on-3.OBJECT} \\
&\text{‘It was put on by Cougar’} & \text{‘Cougar [ERGATIVE] put it on.’}
\end{align*}
The complexity of the pronominal morphology would seem likely to produce confusion. Not only is the same object marker used for both first and second person objects, but the subject enclitics refer sometimes to the agent and sometimes to the patient. The extensive textual material available shows that the roles of participants are frequently clarified with independent pronouns or nouns, which reliably distinguish ergative case for all persons.

(30) Siuslaw ergatives

a. \( \text{S\=e\=t}s\=a=n\=x \quad t=\text{an}\=x \quad I\text{k\=w\=a\=y-u:ts} \quad q-\text{n\=a} \)
   \( \text{thus=2.SG.SUBJECT} \quad \text{this=2.SG.SUBJECT} \quad \text{get-1/2.OBJECT} \quad \text{ERGATIVE-1} \)
   ‘That is why I came to get you.’
   1914: 21.3

b. \( T\text{q\=u}:l\text{u}:y-\text{u}:ts=\text{an}\=x \quad q-n\=i:x\=a-ts \)
   \( \text{shout-1/2.OBJECT=2.SG.SUBJECT} \quad \text{ERGATIVE-you-2.SG} \)
   ‘You are shouting at me.’
   1922: 476

c. \( Y\text{\=a\=q}u\text{\=b}y-u:ts=\text{an}\=x\=n \quad s\text{\=e}\=a-s \)
   \( \text{look-at-1/2.OBJECT=1+3.PL.SUBJECT} \quad \text{3-ERGATIVE} \)
   ‘He is looking at us.’
   1922: 477

d. \( \text{\=A\=x\=u}:y-u:ts=\text{an}\=x \quad s\text{\=e}\=a-s \)
   \( \text{know-1/2.OBJECT=2.SG.SUBJECT} \quad \text{3-ERGATIVE} \)
   ‘He knows you.’
   1922: 476

The older Siuslaw ergative nouns, characterized by \( \mathring{a} \)-ablaut as described in (10) above, are presumably descended from the oblique agents of passives. These ergative forms do not now match any of the modern obliques (though many of those show \( -\mathring{a} \)-ablaut), so that piece of the puzzle must remain obscure.

4. The Alsea ergative category

We saw that though Siuslaw borrowed an ergative marker \( q- \) from Alsea, the loan did not create a new grammatical category in Siuslaw. But what of the borrowing of the ergative marker into Alsea? Alsea also shows internal evidence of the development of an ergative category through reanalysis.

In Alsea, as in Siuslaw, subjects are indicated by pronominal enclitics to the first element of the clause, and objects are indicated by suffixes to the verb.

(31) Alsea subject enclitic and object suffix: 1918ms: 117

\( l:s \quad \text{\=k\=i}:l-aux \quad m\text{ek}\=ai:s-t\=x\=a-n-x \)
\( \text{with rock=3.DUAL.SUBJECT} \quad \text{hit-TRANSITIVE-3.OBJECT-INDICATIVE} \)
‘They hit him with a rock.’
The object suffixes appear to have evolved from passive constructions, just as in Siuslaw. Alsea contains several passive suffixes, among them a patient passive -un and a dative passive -mu.

(32) Alsea passives: 1918ms: 184

a. ki:s  leais-un
    habitually see-PASSIVE
    ‘he is looked at’

b. tesin-áy-ómu-x
    point.out-INCHOATIVE-DATIVE.PASSIVE-INDICATIVE
    ‘it is pointed out to him’

Passivization is pervasive in connected speech in Alsea, ensuring that discourse topics are cast as subjects. Clauses with third person agents acting on first (3/1) or second (3/2) are also routinely passivized. The subject enclitics =n ‘I’ in (33)a and =pst ‘you two’ in (33)b refer to the original patient subjects of the passives.

(33) Alsea passives: 1920: 48.19, 54.20-1

a. ki=n  kimha?k  ítica?  łaamxayudi:
    will=1.SG.SUBJECT perhaps not fit.PASSIVE
    ‘It may not, perchance, fit me.’ (lit. ‘I will not be fit (by it)’)

b. ki=pst  hi:kc  q=as  manstí:  hi:tslem  pe-nú:ns-itx-u:
    will=2.DU.SUBJ just ERG=the all people INT-eat-CONT-PASS
    ‘All the people will eat you two.’ (lit. ‘You will be eaten by all the people.’)

The modern Alsea object prefixes show traces of earlier passive constructions, though not as clearly as those in Siuslaw. The first person object marker appears to be descended from a sequence involving the dative passive suffix, and the second and third person object markers from one including the patient passive.

The shape of the patient passive marker itself is interesting. Two other suffixes show the form -u; identified by Frachtenberg as ‘transitional’ and ‘neutral’. The transitional ‘indicates a transition from one period into another’ (1918: 217) and the neutral ‘actions best rendered in English by an impersonal verb’ (1981: 165). Both often, though not always, occur with inchoative actions marked with inchoative suffixes.
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(34) Alsea –u: TRANSITIONAL and NETURAL: 1920: 64.37, 32.16

a. ṭε-slickin-i-y-u:
   VERBALIZER-quiet-INCHOATIVE-TRANSITIONAL
   ‘he became quiet’

b. tki-l-áy-u: as kī:1
   split-INCHOATIVE-NEUTRAL the rock
   ‘[No sooner had she placed her cane there when] the rock split.’

These suffixes are a likely diachronic source for the passive marker. A similar development can be seen in Coos. The Coos transitional marker –iye has a passive use, and appears to be the basis of passive suffixes –iyem and –iyeqem.

The ultimate source of the Alsea passive, transitional, and neutral suffixes can be seen within Alsea itself: a verb root u:-wa- ‘become, change, turn into’.

(35) Alsea verb u:-wa- ‘become’: 1920: 30.3, 156.34

a. tsamisíyu: u:-tx-ái:-xasx
   shadow turn.into-INTRANSITIVE-INCHOATIVE-REFLEXIVE
   ‘He merely turned himself into a shadow.’

b. k' i:l tai? wá-tx-astax as it'sai:s.
   rock only turn.into-INTRANSITIVE-PASSIVE the house
   ‘The house had turned into a rock.’

We can thus see not only the circumstances leading to the development of the ergative category within Alsea, namely obligatory passivization whenever third persons act on first or second, but the source of the passive marker as well, in a verb ‘become’, a well-known source of passives cross-linguistically.

If Alsea developed an ergative category through internal reanalysis before it borrowed the Coos marker, we are left only with identifying the original Alsea ergative marker. Alsea does show two forms of the ergative: q and x. The first explanation that springs to mind is that Alsea borrowed the Coos ergative x then subsequently developed a stop variant q. Frachtenberg notes, however, that the q/x alternation is unique to the ergative marker, not a regular process in the language. Alsea may have first developed its own ergative marker q, then borrowed the Coos x as a variant, an easy step since the Coos x was so similar in both form and function. Modern Alsea shows no surviving oblique marker with either form, so the full history of the form remains obscure.

5. Conclusion
It is still unclear whether the Alsea, Siuslaw, and the Coosan languages ultimately stem from a common ancestor, but it does appear that ergative
markers spread among them through contact, from Coos to Alsea to Siuslaw. The category itself does not seem to have originated in contact, however. Each of the languages shows evidence of the internal development of an ergative category. If the markers but not the Category were borrowed, we still have no explanation for the areal concentrations of ergativity noted by Nichols (1993). But the situation on the Oregon Coast suggests some clues.

All three of the families show extensive use of passive constructions in spontaneous speech and multiple passive markers. They also share the routine use of passivization in situations where third person agents act on first or second person patients. Such usage could easily be spread through contact. Speakers accustomed to ensuring that speech-act participants are cast as subjects through obligatory passivization might well carry this practice into other languages they spoke. Thus the category of ergativity itself might not need to be diffused through contact, but circumstances leading to its development could, ultimately resulting in areal concentrations of ergativity.

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