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A Diachronic Perspective on Active/Stative Alignment in Siouan.

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Introduction.

Nearly all of the Siouan languages are active/stative (also called "split-S" or "split intransitive") in case alignment as signaled by the selection of subject pronominal prefixes of intransitive verbs. This paper examines a particular class of stative verbs, those that, although morphologically stative, seem to be active semantically. This class is examined in several Siouan subgroups with a view to determining the Proto-Siouan criteria for stativity. Mechanisms for changing a verb's status within the system are also discussed.[1]

What may be termed for the moment *stative intransitives*, 'be tall, be sick, be blue', etc., routinely require subject prefixes from the patient pronominal set across Siouan, while clearly active intransitive verbs like 'go, jump, run' require subject prefixes from the active pronominal set just like typically transitive verbs. Thus we have well-known Lakota examples such as:

(1)

	jump	be sick
1st sing.	***wa***-psíča *I* jump	***ma***-khúže *I* am sick
2nd sing.	***ya***- psíča *you* jump	***ni***- khúže *you*'re sick
3rd sing.	psíča *s/he* jumps	khúže *s/he* is sick
inclusive	***ų***- psíča *we-2* jump	***ų***-khúže *we-2* are sick

Compare transitive subjects and objects (3rd person agent *and* patient is *Ø*):

1st sing.	***wa***-káštaka *I* hit him	***ma***-káštaka he hit ***me***
2nd sing.	***ya***- káštaka *you* hit him	***ni***- káštaka he hit ***you***
3rd sing.	káštaka *he* hit him	káštaka he hit *him*
inclusive	***ų***- káštaka *we-2* hit him	***ų***-káštaka he hit ***us-2***

Transitive objects and stative subjects are from the same pronominal prefix set. And an analogous pattern is found to one degree or another in the other Siouan subgroups. But let us note at the outset that, in these Dakotan paradigms, the distinction between active and stative pronouns is only made half the time. The 3rd person is *zero* in both pronoun sets and the inclusive does not make a case distinction in Dakotan. It is *ų*- (or an automatic variant, *ųk*-) all the time. So case morphology, only available in two out of four prefix sets, does not form a terribly robust sort of paradigm to begin with. With this review of the facts in mind, let us examine the status of stative verbs in several Siouan languages and subgroups.

Stative verbs across the Siouan language family.

Stative verbs themselves appear to fall into roughly three subclasses in Siouan: **(1)** A group of adjectival predicates, which are consistently stative morphologically across the entire Siouan language family; **(2)** positional verbs, which are usually said to be semantically stative but morphologically *active* across the family; **(3)** verbs which are morphologically stative but semantically active – verbal concepts that seem to be actions much more than states, such as 'fall down', 'ache, hurt', 'tell lies' or 'faint/die'. Several verbs in this latter class are actually two-place predicates such as 'resemble', 'be as X as', 'like/cherish' and 'be proud of'. It is the group of semantically active stative verbs that is the most interesting and that illustrates the kinds of problems faced by synchronic and diachronic linguists alike in their search for the factor or factors that condition a verb's class membership in the active/stative typology.[2] Let us examine these sub-classes one at a time.

Adjectival predicates.

Predicates translatable into English with 'to be X' (where X is normally an English adjective) fall into two major semantic subclasses in Mithun's well thought out 1991 taxonomy, namely, *permanent attributes* and *temporary states*. These two subclasses are formally distinct in some languages, but both are consistently stative in Siouan. There are dozens, perhaps hundreds, of these (it seems to be an open class) and, historically, the class is clearly reconstructible in Proto-Siouan as almost entirely stative, and this even includes instances in which verbs are not cognate in the several Siouan languages. In other words, this large subclass of stative verbs seems to be semantically definable.

(2a) Examples of generally inherent states. All are stative across the board.

	Kansa	Osage	Quapaw	Ponca	Dakota	Crow
'be cold'	hníčče	hníhce	sní	usní	sní	alačiši
'be blue'	ttóho	htóho	ttó	ttú	thó	šúa
'be tall'	sčéje	scéce	stétte	snéde	hąska	háčka

(2b) Examples of temporary states that may affect an individual. They also require stative pronominals.

'be sick'	hühega	hüheka[3]	hát?e	wakhéga	khúža	baakuhpáa
'be tired'	ožéya	ožéða	hǫ́žeda	užéða	kšikšé	apášše
'be full, satisfied'	ogí•ppi	okíhpi	okíppi	ugíppi	ímna	iaxpáaši

Positional predicates.

A small class of exceptions is also well-defined and reconstructible, namely the positionals and an existential verb. Cognacy within this set is high, and these are all historically intransitive and morphologically active, though in modern times they are semantically stative.

(3)

'be sitting'	yį́khé	ðį́kšé	nį́khé	nį́khé	yąká	dahkú
'standing'	kháhe	tháhe	tháhe	tháhe	há	áahku
'lying'	žą́	žą́kšé	žą́	žą́	yų́ká	baačí
'be alive'	nį̂	nį̂	nį̂	nį̂	ni	ilí

It has been suggested that the positionals might not really be verbs of state.[4] Each of them, however, has an active counterpart in most Siouan languages. These inchoative counterparts mean 'to sit down', 'to stand up' and 'to lie down'. And the semantically active, change-of-state verbs are nowadays consistently distinct from their positional, counterparts. But *both* sets of verbs, the actions and the resultant states, seem to require active morphology historically. We shall return to the positionals presently.

Semantically active statives.

There are numerous additional intransitives that are semantically active but morphologically stative in one or more Siouan languages. There are yet other verbs with two arguments, some of which we would ordinarily think of as transitives, that, in Siouan, have double stative pronominal marking. These exceptions to the canonical Siouan adjectival intransitive statives present an interesting problem in morphological reconstruction, because case alignment for most of them is not consistent across Siouan. This, in turn, creates problems for synchronic definitions of case alignment. My sample of these comes from the languages with the best and most available dictionaries and grammars. Stative verbs are **boldfaced** on the chart while active verbs are <u>underscored</u>. Causative verbs are *italicized*. Verbs of unknown affiliation are unmarked.

(4)	Kansa	Osage	Quapaw	Ponca	Dakota	Crow
fall down	**oxpáye**	**oxpáðe**	**oxpáde**	**uxpáðe**	**hįxpaya**	**pašší**
ache, hurt	**ne**	**níe**	**te**	**níe**	**yazą́**	**aleé**
recover	**giní**	**kiní**	**kihóttą**	**giní**	**kiní**	**čiaxxapí**
perspire	**bayį́jže**	**paxíce**	**baxítte**	**uná•bðį**	**themní**	**tawásaali**
lack	**nįgé**	**ðį́ke**	**nike**	**ðįgé**	**níča**	
pant		**hehé**	**kaskí**	**uixtí**		**dúupeeše**
swell up	íba	**ípa**	**ípa**	**íba**	**kapó**	**dappúši**
itch	**kʔüya**	<u>ðakʔíða</u>	**daxʔíxʔike**	**ðaʔį́ʔįða**	**oyášʔįšʔį**	**xalía**
tremble	**basą́są**	<u>sąsą</u>	**žǫ́žǫ**	**sąsą**	**čą́čą**	**tannaá**
tell lies	**íxobe**	<u>íxope</u>[5]	<u>įdáxowe</u>	<u>iusíštą</u>	**iyaglegleya**	**biíšši**
suffer		<u>ála</u>	**ákda**	**ísabe**	**kakíža**	<u>páxpi</u>
tumble over			**kakkíkdattize**	**kkigðašą**		**páttaččia**
die, faint	<u>cʔe</u>	<u>cʔe</u>	**tʔe**	<u>tʔe</u>	**tʔa**	<u>šee</u>
belch	<u>dó•ski</u>	<u>tóskü</u>	<u>ppíxe</u>	**baʔú**	**apablu**	<u>sáaxi</u>
lose sthg.	*<u>oxpáyegaye</u>*		**okixpade**	*<u>uxpáðe giðe</u>*	**toka kíxʔą**	
bleed	wabį̂[6]	**wapį**			**iwé**	
open eyes, see	<u>dǫ́be</u>	<u>tǫ́pe</u>	<u>tǫ́pe</u>	<u>dǫ́be</u>	**tųwa**	<u>ištáluuxia</u>
forget	**hagíye**	<u>kisíðaži</u>	<u>ákdąnį</u>	<u>gisíðaži</u>	<u>akíktųža</u>	<u>kalaxtá</u>
have, bear	<u>ttǫ</u>	<u>htą</u>	**ttą**	ttą (?)	<u>thų</u>	<u>eé</u>

moan, groan		íkahtą	**nahǫ**	ígattą	čhąyąka	biláači
stagger			gahínana		**čéka**	tattáahi
snore		žąxlóce			**yobištima**[7]	sáaxi
arise, get up	**ppahą**	akíhpahą		ppáhą		čileé
squint, wilt	**blezáya**				napósi	*ištániahče*
remember		kisíðe	kíside	gísiðe	**kiksúya**	*čičéhče*
cough	hóxpe	hóxpe	hóxpe	húxpe	hoxpá	axxí
sneeze	héčhį	héchį	héšį	héčhi	pša	apíiaxxi
vomit	lébe	lépe	kdéwe	gðébe	glépa	kalée
fart	biyą		ákkiži	ðibúye	kče	pía
yawn			iáda		iyóya	

These examples were chosen for their meanings, so some of the verbs listed here are cognates but others are not. The chart is arranged so that the verbs most consistently stative morphologically are at the top and those that are most consistently active are at the bottom. The verbs in between vary in their alignment from one language to the next, often even within established subgroups and even among cognates. Derived and underived stems of the same verb may frequently differ in case assignment.

Two place predicates that are doubly stative are harder to come by and are included here only provisionally while additional cases can be sought and investigated.[8] Several of them do not represent truly active verbal concepts, but they are an interesting subclass of statives nonetheless. Generally speaking, there seems to be little cognacy among them across the entirety of the language family, and, even within the Dhegiha subgroup, where they are often cognate, there is disagreement on case assignment. 'Resemble' is the only actual cognate set here with double stative alignment. Again, statives are boldfaced, actives are underscored and overt causatives are italicized. An underscore within the verb stem shows where first and second person pronominals are affixed. Inclusive person is often the left-most prefix.

(5)	Kansa	Osage	Quapaw	Ponca	Dakota	Crow
love	*oxta_ye*	**óxta**	**o_xtaxti**[9]	*xta_ðé*		
like					**ʔiyó_kiphi**	
resemble					**ʔiyé_čheča**	**čičée**
be proud of					**ʔí_tą**	**baaiáleeta**
join, belong	o_kkióhe				**itháwa**	**ačí**
be tired of		**íbrą**				
fear someone	nǫ́_ppe	nǫ́_hpe	nǫ́_ppe	náppe	**iní_hą**	
be touching						**íhkuluu**
be equal to						**íkuxxa**
be pleased w/	giyé			giðé		
be next to					**ʔíyo_khihe**[10]	
be as X as						

Split-S systems.

Let us examine the historical factors that have been proposed to account for split intransitivity to see what, if any, explanations emerge. Then let us look more closely at some of the factors that can be seen to contribute to the instability found in the several Siouan languages represented in the sample.

Case alignment such as we find in Siouan is variously called "split intransitive, split-S, active-stative" or simply "active" by various linguists. In the 1970's, Perlmutter introduced the term "unaccusative" to refer to intransitive predicates that treat their subject argument like a transitive object or patient; those intransitive verbs that treat their subjects like transitive agents he called "unergative". These terms played an explanatory role in Perlmutter's particular model of grammar and are also used in an interesting and informative study of stative verbs in Lakota (Legendre and Rood 1992), but neither corresponds to any independently definable semantic class. They are just labels, so to me neither is explanatory in any robust sense. The most common semantic and/or grammatical correlates of active/stative case marking are discussed expertly in Mithun (1991), portions of which are summarized below.

In some languages, Guaraní for example, pronominal selection is done on the basis of what Mithun calls semantic *aspect*. Verbs in the active class denote events (*activities, accomplishments* and *achievements*); they imply change over time. Verbs in the other class are time-stable and denote states (*ibid.* p. 512f). Siouan languages are *not* of this latter type, because verbs like 'to fall down, recover, perspire, pant', etc. are consistently in the wrong class for that analysis to work in Siouan.

Mithun (p. 514ff.) and others have claimed that the diagnostic semantic feature in Siouan is *agency*. Agents *perform*, *effect*, *instigate* and *control*, and these factors do seem to influence pronominal selection in a number of languages. But the four factors do not always coincide. Toward the lower half of the comparative chart ((4), above) are several verbs like 'belch, moan, snore, sneeze' and 'vomit'. These generally select the active pronominal set in Siouan languages, despite the relative *lack* of control that their performers normally exert over them.

Notions like 'fall down, recover, ache, perspire' and 'lack' are not performed, effected or instigated by their subjects. The subjects of these latter verbs are *experiencers* rather than *agents*. And in Siouan, they select patient pronominals. On the other hand, belching, sneezing and vomiting *are* acts performed by their subjects, even though perhaps not controled, but these verbs, along with 'run, jump, come' and 'go' select active pronominals. The notion of *control,* then, is not crucial for agency in Siouan (*ibid.* p. 516).

Changes in Siouan split-S systems.

If the interactions among these criteria for agency seem a little confusing, that may be perfectly normal, since it seems that speakers may be somewhat confused too, at least over time. It is clear that within the Siouan language family, there is considerable

variation in the classification of these semantically active but grammatically stative verb stems.[11]

'To itch' is stative in all but Osage, where it is active, yet this active Osage verb has stative cognates in Kansa (which was mutually intelligible), Quapaw, Ponca and (with a different fricative grade) in Lakota. 'Tremble' is similarly different in Osage. 'To tell lies' is active in Quapaw and Ponca even though the forms are not cognate between the languages. The Quapaw term *is* cognate with the Kansa and Osage forms however, but their case alignment is different. 'To suffer' splits with three languages calling for stative and two for active pronominals. One cognate set (Quapaw and Osage) is divided in the process. 'To belch', active in Mithun's typology, splits with two languages opting for stative and four for active marking. Cognacy is not a factor. 'To snore' is active in all languages, but when the relevant verb, *γópa*, is compounded with 'sleep' in Dakotan, the result is stative. 'To moan, forget', and 'stagger' all split with a single dissenter each. And there are several other sets with similar splits.

Accordingly, as comparativists we realize that the apparent primary goal of every synchronic linguist, namely, discovery of some unique conditioning factor for alternating forms (whether in phonology or grammar), is often going to be unattainable here. It will, in fact, never be possible to discover *the* factor that determines case alignment in (probably) any Siouan language. There are good historical reasons for this, and we would expect it to be the case in most languages in which categorial assignments can vary. [There are a lot of linguistic Captain Ahabs out there desperately searching for the great white whale -- the unique conditioning factor. One of the lessons of historical linguistics is that it will basically do no good to try to "stretch" either the data or the theories to fit such facts as these.]

Mithun (1991) suggested several factors that she felt might cause systematic changes in split-S systems such as the ones we find in Siouan. Her paper deals primarily with the semantic criteria for active/stative case marking and the fact that these criteria appear to have *shifted* over time within the group of languages that she calls Macro-Siouan. Her explanation entails acceptance of an old but unproven hypothesis in Americanist linguistics, namely that the Siouan, Iroquoian and Caddoan language families are genetically related. These three major language families are all "split-S" but the active/stative split is systematically different in each family. Obviously, if the three families are related, some sort of systematic verb class changes must have occurred at some time in the past. Some languages appear to have gone from case selection made on the basis of *aspect* to selection on the basis of *agency*. Or, agency might include the notion of *control* at one time but then lose it at another. Shift in such semantic distinctions is what underlies change in Macro-Siouan active-stative case marking for Mithun, and change in such systems would then be primarily the result of extension or contraction of the semantic criteria governing the splits.

Seen in light of our sample of Siouan stative verbs, this would seem to put the cart before the horse. It is entirely unlikely that speakers either invent or extend a cognitive distinction and then pour verbs into it wholesale, as if by rule. They do not

simply begin to "feel the need" to express experiencer subjects with stative pronominal prefixes. Bilingualism has been known to facilitate the transmission of entire cognitive categories from language to language, but innovation or even extension of such a category requires different mechanisms.

Mithun necessarily confines herself to a description of the end product of change, not the mechanism(s) or motivation for the original change itself. Looking in greater detail at changes in case marking in Siouan propels one to rather different conclusions about causation of change in the system. While it is true that the criteria for stative marking may end up shifting semantically (at least partially) in certain languages, this factor does not appear to be the *source* of most of the changes affecting Siouan systems. Actually, phonological and morphological syncretism have played a more important role in the reassignment of Siouan verbs between active and stative categories. Semantic universals might ultimately play a role in the extension of such systems, but only once they become more or less well-established.

Phonological change and case marking.

Dakotan.

For an instance of purely phonological change affecting case marking, let us return to the Dakotan positional verbs, *yąka* 'be sitting' and *yųka ~ wąka* 'be lying', used very commonly as continuative auxiliaries. These are conjugated as follows:

(6)	be sitting	be lying I	be lying II[12]
1sg	**m**-ąká	**m**-ųká	**m**- ųka
2sg	**n**- ąká	**n**- ųká	**n**- ųka
3sg	yąká	yųká	wąka
incl.	**ų**-yąka	**ų**-yųka	**ų**-wąka

Normally the actor pronominals in Dakotan are *wa*- '1st sg.', *ya*- '2nd sg.' and *ų*- 'inclusive'. Dakotan patient pronominals are *ma*- '1st sg.', *ni*- '2nd sg.' and *ų*- 'inclusive'. But here, Dakotan displays an archaic active conjugation pattern that was once characteristic of verb roots with initial nasal vowels, i.e., it was originally phonologically conditioned. The initial glide in the third person is epenthetic, and we know from the fusion of the pronouns with the roots, and from comparative evidence, that this conjugation is just a variant of the active paradigm. But Dakotan speakers can hardly be blamed for assuming that the first person *m*- (here a nasalized *w*-)and second person *n*- (here the reflex of a nasalized *y*-) are allomorphs of the *stative* pronominals, *ma*- and *ni*-, which they closely resemble. And, in fact, this is exactly what Ella Deloria, a fluent, educated native speaker, assumed in the work she coauthored with Franz Boas (Boas and Deloria 1941:99) in which she writes, "*ma*- and *ni*- of the first and second persons are contracted before the following vowels to *m*- and *n*-, similar to the treatment of *ma*- and *ni*- in *ʾų* [a verb meaning 'do' or 'be' -- RLR]." Thus, in Lakota, we could actually say that, synchronically, these two positional verbs have left the active and been reanalyzed as part of the stative paradigm. And phonology is entirely responsible for this.

Crow.

In Crow the active and stative prefix sets are:

(7)	active	stative
1sg	ba-	bii-
2sg	da-	dii-
3sg	Ø-	Ø-
1pl	ba-	balee- (Cf. cognate Tutelo *wae-, mae-*)

Note that most of the active pronominals have the vowel *-a-* and most stative pronominals have the vowel *-i-*. And in Crow there is a set of verbs with apparently mixed active-stative paradigms (Graczyk, personal communication). For example:

(8)	'be hungry'	'be tired'	'not know'	'be full'
1sg	**b**- alíiši	**b**- apášše	**ba**- alaaxtá	**b**- iaxpáši
2sg	**d**- alíiši	**d**- apášše	**da**- alaaxtá	**d**- iaxpáši
3sg	alíiši	apášše	alaaxtá	iaxpáši
1pl	***balee***- alíiši	***balee***-apášše	***balee***-alaaxtá	***balee***-iaxpáši

The phonological changes in Crow have apparently either replaced the prefix vowel with the initial vowel of the verb stem ('be hungry, be tired, be full'), or they have assimilated the prefix vowel to the stem-initial vowel ('not know'). In the first three cases the first and second person singular forms look like active pronominals because of the vowel *–a-* that they have acquired from the verb stems. Only the first plural form betrays the stative nature of the verb. Crow has many verb stems that begin with either *a-* or *i-*. Speakers can hardly be aware that phonology is to blame for the homophony in the prefix sets and the consequent opacity of the case distinctions.[13] Therefore it is not surprising that a regular, *active* first plural form ***b****-alíis-uu* 'we are hungry' is reported for some speakers. For these individuals, 'be hungry' has simply shifted from the stative to the active verb class, the first plural being remodeled analogically on the basis of the first two persons.

Note that in Dakotan, we had morphologically active positional verbs being reinterpreted as statives because of their phonology (possibly in conjunction with their semantics). In Crow it is just the opposite: Phonology has conspired to make morphologically stative verbs look active. As we have known for over a century, sound change is normally blind and fortuitous and is no respecter of morphological or semantic distinctions.[14]

Opacity of case identity: Dhegihan.

All Dhegiha Siouan dialects (Omaha, Ponca, Kansa, Osage and Quapaw) have an archaic paradigm for auxiliary verbs 'be sitting', and some for 'be lying', which are used in continuative verb constructions, (in other words, they are like Dakotan) but in this instance homophony of the active with the stative prefix sets (such as happened in Dakotan) has not occurred because the stative prefixes had evolved differently. Nonetheless, case identity of the pronominals is opaque to Dhegiha speakers simply

because of the idiosyncratic nature of the, originally phonologically conditioned, allomorphs. Quapaw provides examples and all other Dhegiha dialects have close analogs.

(9) Quapaw active and stative pronominal prefixes:

	active	stative
1sg	a-	ą-
2sg	da-	di-
3sg	Ø-	Ø-
incl.	ąk-	wa-

(10) Quapaw positional auxiliary paradigms (retranscribed from Dorsey 1890):

	be sitting	be lying
1sg	**m**- įk-hé	**m**- įk-hé
2sg	nik-hé[15]	**ž**- ąk-hé
3sg	nįk-hé	k-he
incl.	**ǫ**-nįk-he	įké

Dhegiha first person ***m-*** and second person ***ž*** or ***Ø***- are phonetically unlike the stative prefixes, but they are also unlike the active prefixes. Case identification would be translucent at best with these irregular conjugations. So we see that extreme *irregularity in allomorph selection and/or suppletion in a paradigm may well be almost as good as homophony at obscuring verb class membership and case identity*. It would be really very difficult for speakers to determine the class of these positional auxiliaries in Quapaw. So while we know they were active historically; synchronically they could be said to have no class identity. This pattern extends to several additional common Dhegiha irregular verbs (*do, use, wear, think, ask, come, arrive, say* and others).

Problem of morphological syncretism: Biloxi.

Biloxi was not included in the charts (4 and 5) of stative verbs above, because Biloxi is even less able to make the grammatical distinction than other Siouan languages. Biloxi and the other two attested Ohio Valley Siouan languages present very different systems and are discussed in detail below.

We have seen how phonological change and morphological syncretism have made case identification translucent at best or opaque and non-recoverable at worst in several different Siouan subgroups. Let us now look at a few cases of *semantic change* that have accompanied or have resulted in reclassification of verbs. Semantic change would presumably have to be Mithun's primary mechanism for the shift of verbs from one category to the other.

Semantic change.

Panting is a performed action, but the verb is clearly stative morphologically in Quapaw *kaskí*. The Osage cognate for Quapaw 'pant', however, is *kaskíke* 'to be weary' (La Flesche 1932), normally a stative concept, so the source of stativity in Quapaw may be explained as involving semantic change *from* a meaning closer to that found in Osage.[16]

Logically, the shift could have gone in either direction however, but 'to pant' is stative in a number of other languages as well, where it is not cognate with the Quapaw and Osage terms. It is rather unclear though why panting should be consistently stative and, say, sneezing should be consistently active.

The verb *akda* 'to suffer' is clearly stative in most languages including Quapaw, but La Flesche (1932) gives the translation of the Osage (active) cognate, *a•la*, as 'to impute, accuse', so it is probable that there has been semantic change here in one direction or the other. The Osage seems almost to have a causative meaning, compared with the Quapaw (but no causative morphology). So here clear cognates do have different case selection according to Mithun's projected semantic criteria. One of them has apparently undergone semantic change and been reclassified.

Mithun (1991) explicitly makes allowances for individual semantic changes and idiosyncratic grammaticizations in her paper, although she does not discuss in any detail the role of phonological change in categorial shifts. She does not, however, identify these mechanisms as the primary instigators and effectuators of such shifts, which is what they seem to be when change within a family of closely related languages is examined in detail. The evidence from Siouan confirms that lexical diffusion, in this instance a kind of analogical change, effects much morphosyntactic change.[17] Verbs move from active to stative (occasionally *vice versa*) one at a time and for a variety of reasons, not *en masse*. Morphological change is not like Neogrammarian phonetic change, rule-governed and affecting entire categories at once. Categorial change, of the sort we have been examining, is idiosyncratic and asystematic, at least at the outset. Semantics could play a later role as a sort of very amorphous "target", perhaps as children acquiring their language seek to impose some sort of order on disparate data, but this would have to be demonstrated, and it is certainly not clear from the comparative study of Siouan. Suffice it to say that Siouan has been diverging for probably three to four thousand years, yet we are nowhere near morphological or semantic unanimity in any of the changing categories; no Siouan language has completely filled any semantic extension of the original, aspect-defined stative category. We must ask ourselves whether it is really likely that this would ever happen.[18]

Further investigation shows that the active/stative/agentive case marking prevalent in all of the more westerly Siouan subgroups, as well as in Proto-Siouan, has undergone important changes in Biloxi, Ofo and Tutelo, the three attested Ohio Valley Siouan, or OVS, languages, resulting in collapse of the original, (mostly) semantically definable alignment. Those languages, once spoken in Alabama, Mississippi or Louisiana and Virginia, are extinct and poorly attested, so analysis is difficult, but a certain amount of information can be extracted from the available data, most collected between 1870 and 1909, even though we can not always be certain of transcription accuracy.

None of the three OVS languages really retained an active-stative system similar to that found in the more westerly subgroups. Nor are the OVS systems obviously similar to each other. We must examine each language with a view to determining ways in which

each is conservative or innovative. It is most instructive to look first at Ofo, then Biloxi and finally Tutelo.

Surveying the three quickly, **(1)** In Ofo, both active and stative pronominal sets are retained, but we will see that there is a lot of ambiguity because of vowel assimilation. It is the prefix vowel that most often signals case identity, so altering a lot of these vowels leaves the active/stative distinction poorly marked, if one can say it is present at all.

(2) In Biloxi, the two pronominal prefix sets have completely collapsed into a single set, but one in which active and stative prefixes are found in complementary distribution in purely phonological environments. No categorial active/stative distinction exists at all in Biloxi.

(3) Tutelo seems to hold the key to clarifying several of these developments. The verbs having stative *Aktionsart* have kept their patient subject pronominal prefixes, but these patient prefixes are now found used by a variety of purely active verbs also. This extension of the patient prefix set in Tutelo and its ultimate phonologically conditioned distribution in Biloxi require an explanation.

The following chart summarizes the pronouns and pronominal prefix sets of these Ohio Valley Siouan languages. Siouan languages are pronominal argument languages, and *independent* pronouns are not normally used except to signal contrast. They are included here because of the role I hypothesize that they play in developments in Tutelo.

(11) *Independent* pronouns:

	Biloxi	**Ofo**	**Tutelo**
1sg	**ąḱį́**di	**mį́•**ti	**mi•**ma
2sg	**ayį**di	**čį́•**ti	**yi•**ma
3sg	**į**di	**į́•**ti	**i•**ma
incl.	**ąḱį́**xtu	**ą́•**ti	**?**

Actor pronominal reflexes:

1A	ąk-	ba-	wa-
2A	**ay-**, (y)i-	ča-	ya-
3A	Ø-	Ø-	Ø-
inclA	ąk-	ą-	mą•k-

Patient pronominal reflexes:

1P	ąk-	bi-	wi-, mi-
2P	ay-, **(y)i-**	či-	yi-, yį-
3P	Ø-	Ø-	Ø-
inclP	ąk-	ą-	wae-, mae- (Cf. Crow *balee*)

Let us now examine the distribution of these pronominals in the three OVS languages.

Ofo. Our sole source of Ofo data is the 600+ entry vocabulary collected by John R. Swanton in 1908. The active-stative distinction is not obvious in Ofo, if it existed at all. The differences in verb conjugation we find are not sensitive to this split. Semantically stative verbs are often found with apparent regular, active pronominal marking. These include *be satisfied, be drowned, be stingy*, *be cold*, and perhaps *stink*. The problem is that the underlying verb stems in all these cases all begin with vowels – mostly the locative prefix, *a-*, or the instrumental prefix, *i-*.

(12)

	be drowned	be stingy	be cold	stink
	alű́thě	á•kuičú	ą̨čehí	ishú•hi
1sg	balű́thě	bā́kuitcu^{n}	bo^{n}tcehí	bĭishű́hi
2sg	tcalű́the	tcā́kuitcu^{n}		tcĭishű́hi
1du	o^{n}lű́thě			

Locative prefixes normally occur to the left of the singular pronominal prefixes in the rest of Siouan, but in OVS there are plenty of exceptions to this rule, over 60 in Ofo, and a large number of verbs prefix all actor pronominals to a locative prefix. In some instances Swanton recorded different persons of the verb with different locatives or some with and some without locatives. Locative *o-* 'in, into' is almost never found preceding actor pronominals, only following. The single exception seems to be *u-**š**-te´kna* 'you are going in (to town)' in which the irregular allomorph *š-* '2sg actor' follows the locative.

(13)

	be satisfied	know	make fun of	cut across
	akhí•pi	ífpe	ą̨tó•nisi	ofhípi
1sg	aba̲kh̋ípi	ibáfpě	abi^{n}tṓnisi	bofh̋ípĭ
2sg	atca̲kh̋ípi	tcáfpě	tci^{n}tṓnisi	tcofh̋ípi

Prefixing pronominals to locatives creates grave problems for determining whether a given verb is active or stative. The active-stative distinction resides in the vowel of the pronominal, and that vowel is deleted if the verb stem is vowel-initial. With locative stems, the vowel of the locative simply replaces the vowel of the pronominal, and case distinctions are wiped out.

The verbs *sweat*, *bite* and *hear* do have an irregular 2nd person that looks as though it might reflect a patient pronominal, *čį-*. This is the best trace of clear use of a stative subject pronominal that I have found in the Ofo data. The 1st person form of 'sweat' is ambiguous, since the pronominal here seems prefixed to the locative, unlike the 2nd person. But except for *sweat* and *stink*, which may contain a locative prefix , the semantics are all wrong.

(14)

	sweat	bite	hear	stink
	(a)phúki	tá•fe	əshe	ishú•hi
1sg	**b-**aphű́kě	**ĭ**-tā́fĕ		**b**ĭishű́hi

2sg a-**tc̆im-**phűkĕ **tc̆i-**tắfĕ **tći-**a̲sxe **tc̆**ishűhi

Failure of ***tći-a̲sxe*** to collapse to **čəshe* is unexplained and suggests a contrived form.

Other vowel-initial and locative stems, numbering at least sixty, are simply ambiguous in Ofo. They may have been active or stative at one time.

Ofo does have the advantage of retaining common Siouan irregular verb types to a small extent, showing that they once were productive in OVS. There are several consistent conjugation patterns and a few inconsistent ones that may or may not have been normal in the language. Among the sporadic irregular pronominal allomorphs preserved in Ofo are the following 2nd person forms.

(15) **c**-tó^{n}hi you see
a-**c**-tho^{n}hi you run
c-tḗ-kna̲ you go

The prefix ***š-,*** written here with the letter "c" by Swanton, is the 2nd person actor allomorph. With very few such forms preserved, it is easy to see how they could become confusing and opaque to speakers. Such irregularities, common throughout Siouan languages of the Plains, are not found in Biloxi or Tutelo at all.

Rosa Pierrette, the last Ofo speaker, was probably out of practice using her language, while Swanton was for the most part not a Siouanist, nor did he speak French, the contact language in the Marksville, LA community in the early 20th century. He had to work through an interpreter, and many of his translations for particular verb forms do not fit the morphemes visible in the verb, and either or both of the principals in the field work may have been at fault. These problems and the prevalent ambiguity of case with vowel-initial stems prevent us from clarifying Ofo further.

Biloxi shares some of these problems and adds new ones. Note that the Biloxi actor and patient sets are identical, while in the other two languages, both 1st and 2nd person actors have the vowel ***a*** and patients have the vowel ***i***. It is these vowels that distinguish the sets from one another, an important factor, since, if something happens to the vowel of the prefix, the contrast between the pronominal sets is lost and the prefix is ambiguous for the category of case. In Biloxi, the actor and patient pronominal prefix sets evolved into a state of complementary distribution.

As with the Dakota inclusive pronoun, ***ų̨k-***, the Biloxi inclusive, ***ą̨k-*** lacks distinct subject and object or active and stative forms. It only has a single shape. What we see is that Biloxi has generalized the inclusive or 1st plural prefix to the 1st person singular, replacing the original pan-Siouan prefix **wa-* with the inclusive prefix *ą̨k-*. In other words, the way you say "I" in Biloxi is to say "we". But *ą̨k-* is invariant for case, whereas 1st sg. *wa-* would not have been. Additionally, in the 3rd person the marking is *zero*, the norm in Siouan languages. This means that in Biloxi *the only pronominal that would even*

be capable of distinguishing case is the 2nd person. Syncretism of the old first singular with the first plural prefix wiped out the remainder of the active/stative distinction.

The 2nd person shows an interesting evolution that has apparently resulted in the complete collapse of the case marking system. Biloxi 2nd person prefixes include the expected active prefix, *ay-*, but they also include the expected stative prefix, *(y)i-*. Einaudi (1976) shows that the variants are conditioned phonologically. *Ay-* is used preceding vowels while *(y)i-* is found preceding consonants, irrespective of their case roles. Thus historically stative *i-* is often found used with obviously active verbs and historically active *ay-* with stative verbs. The same distribution is also found with transitive verbs, so it has been completely generalized.

Here are some examples, of the two second person prefix allomorphs. None marks case.

(16) Biloxi: prefix ***i-*** 'you' /**__C** prefix ***ay-*** 'you' /**__V** or h>Ø

yaǫni	to sing	hautí	to be sick (*h* < *ʔ)
i-yaǫ́ni	you sing	**ay-**áuti	you are sick
ni	to walk	adutí	to be hungry
yi-ni	you walk	**ay-**áduti	you are hungry
koxtá	to run	akąčí	to lick
í-koxtá	you run	**ąk-**ákąči	I lick
		ay-ákąči	you lick
dusi´	to grasp, take	aksteké	to be stingy
í-dusi	you take	**ąk-**áksteke	I am stingy
		ay-áksteke	you are stingy
dičí	to dance	ǫ, hǫni	to do, use (*h* < *ʔ)
í-diči	you dance	**ąk-**ǫ	I do, use
		ay-ǫ	you do, use
hu, u	to come	hį́kinepi	to like a person
y-u	you come	**ąk-**į́kinepi	I like him/her
		ay-į́kinepi	you like him/her

How could such complete complementarity of the two second person pronominal prefixes have evolved? For the answer, it is helpful to go on to Tutelo.

Tutelo case marking is also rather peculiar (Oliverio 1996), but not because of the sorts of haphazard ambiguity found in Ofo or the baffling complementarity of Biloxi.

Nevertheless, a radical restructuring of the Proto-Siouan system had evidently occurred early in the history of these poorly attested (now extinct) languages of the Ohio Valley Siouan subgroup.

First, it is important to point out that Tutelo maintains the set of stative verbs *with* their patient subject pronominals pretty much intact. This shows that stative *Aktionsart* verbs, the sort that we would think of as "predicate adjectives" in English, were clearly set apart at one time in OVS. Although the distinction is no longer made in Biloxi and is only marginally detectable in Ofo, Tutelo made the distinction consistently as far as we can tell. Since most investigators of Tutelo were essentially amateur linguists, they assumed that these stative verbs were adjectives and made no attempt to elicit first or second person forms in most instances. But where they did, i.e., when they were used like English predicate adjectives, the morphology is clear.

(17)	be hungry	be chafed, blistered	be sick
1sg	**mi-**ki•hnįte•wa	**mí-**naxlóta	wa-**mé-**kino•ma
2sg	**yi-**ki•hnįte•wa	**yi-**naxlóta	wa-**yį-**kino•ma
3sg	**-**ki•hnįte•wa	i-naxlóta	wa- -kino•ma
1pl	**mah-**ki•hnįte•wa	**máe-**naxlóta	**mąk-**wakino•ma

	be a man/Indian	be good	be a man
1sg	wa-**mi-**hta•kai	**mį-**pi•wa	má-**mi-**wahá•
2sg	wa-**yi-**hta•kai	**yį-**pi•wa	
3sg	wa- -hta•kai	-pi•wa	
1incl.	**mi-**wa-**mi-**hta•kai		
1excl?	**mi•-**wa-**nu**-hta•kan		

In 'be sick', only the inclusive or 1pl form is unexpected: The expected form would be ****mae-****wakino•ma* with the patient pronominal. And with 'be a man/Indian', the 1pl or inclusive forms are unique and the (apparently) exclusive form, with –***nu***- is a *hapax legomenon.*[19]

The *problems* manifest themselves when we find the same set of apparently stative pronominals used as subjects of a variety of quintessentially active verbs including *dance, tear, turn over, take, eat, swallow, speak,* and others. In addition, virtually all of the common verbs of motion fall into this class: *come, go, walk,* and *arrive.*

(18) BI	**TU**
hu, u, huẋ 'come'	hu: 'come'
y-u	**wi-**hu•-ta
2P-come	**1P-**come-IRREALIS
you were coming	**I** will come

BI	**TU**	**OF**
ditcí 'dance'	wa•ki•či• 'dance'	Ĺítchi 'dance'

i´-ditci	wa•**-i-**ki•či•-se	**tca-**ĺitchi
2P-dance	wa-**2P-**dance	**2A-**dance
you dance	**you** dance	**you** dance

BI	**TU**	**OF**
de ‘go’	le• ‘go there’	te, tekna
i-da´ o^{n}ni	**wi-**le•ta	ctḗkn̲a
2P-go AUX	**1P-**go-IRREALIS	**2A-**go
you are going	**I** [will] go	**you** go
i-de´di		
2P-go		
you go		

BI	**TU**	**OF**
*du*sa´di ‘tear sthg’	*lo*xkáhe ‘tear’	*tu*fa̲fhahi
i´-dusa´di	**yi-**loxkáha	**tca-**tū́fa̲fha
2P-tear	**2P-**tear	**2A-tear**
you tear	**you** tear	**you** tear

BI	**TU**	**OF**
*du*ni´ni ‘roll, fold’	e*lu*ká ‘turn over’	li
i-duni´ni	**yi-**luká	**tcí^{n}ti tca̲-**pakĺ́lihi
2P-turn/roll	**2P-**turn	2sg **2A-**roll
you turn/roll	**you** turn over	**you** roll it

BI	**TU**	**OF**
dusi´ ‘grasp, take	lúse ‘take’	tu•fi
i´-dusi	**wi-**lóša	**c-**tū́fi
2P-take	**1P-**take	**2A-**buy/sell
you take	**I** take it	**you** buy/sell

BI	**TU**	**OF**
du´ti ‘to eat’	lu•ṭe ‘eat’	(a)tūti
i´-duti	**yi-**lu•tita	á-**c-**tuti
2P-eat	**2P-**eat	LOC-**2A-**eat
you eat	**you** will eat	**you** eat

BI	**TU**	**OF**
nayĕ´ ‘swallow’	nąṭe ‘swallow’	nā́wu ‘eclipse’
i-na´yĕ	**mi-**nąt	no data
2P-swallow	1P-swallow	
you swallow	**I** swallow	
	yie-nąt	

	2P-swallow	
	you swallow	
BI	**TU**	**OF**
na´ñ̨i ‘sit’	maha**-**nąka	nőñki ‘live’
i-na´ñ̨i	maha**-yi-**nąka	**tc̆i-**nőñki
2P-sit	POSITION-**2P-**sit	**2P-**live.AUX
you are sitting	**you** sit, (down)	**you** live, dwell
		tca-nóñki
		2A-stay
BI	**TU**	**OF**
ni, niɣ, nĭɣ ‘walk’	nį	ní^{n}kna
yi-ni´	no data	**tca-**ní^{n}kna
2P-walk		**2A-**walk
you walk		**you** walk
BI	**TU**	**OF**
nixtadi´ ‘breathe’	ini• ‘alive’	na̱sh̄ihi ‘breathe’
i-nixtadi	**i-**ni•na	**tca-**na̱sh̄ihi
2P-breathe	**2P-**live (?)	**2A-**breathe
you breathe	**you** live	**you** breathe
BI	**TU**	**OF**
hi^{n}´xkukade´	sa•hį•	įlé
speak to himself	speak	speak
y-i^{n}´xkukade´	k**-ɟ-**seh-na	**tc̄í^{n}ti tc-̄**íle
2P-REFLX.speak	NEG**-2p-**speak-NEG	**2sg 2P?-**speak
you speak to y’rself	**you** did not speak	**ī-tcā-**lĕ
		LOC**-2A-**speak
BI		
ṭe, ṭédi ‘die, be dead’	te• ‘die, be dead’	thĕ, txe ‘die, dead’
i-ṭe´di (or **i-**te´di)	**yi-**te•wa	**tcá-**txe
2P-die	2P-die	**2A-**die
you die, are dead	**you** are dead	**you** die
		tc̄í^{n}ti athĕ̄
		2sg ?-dead
BI	**TU**	**OF**
tca´di ‘PL.die’	čǫ̨ḳa ‘PL.die’	no pl. verb
i-tca´di	no data	
2P-PL.die		

y'all die, are dead

BI	**TU**	**OF**
woxaki	ẋa•ka 'weep'	o-bi-sh̋ik̆ĭ
become ashamed		be ashamed
-wo´xakitu	**yi-**ẋa•ka	**tc-**o-bi-sh̋ik̆ĭ
they became ashamed	**2P-**weep	**2?-**LOC-INSTR-cry/shame
no 2nd person attested	**you** weep	**you** are ashamed

The first and most important clue to an explanation comes from the Tutelo verbs of motion. The plain verbs all show the peculiar "stative-like" markings, but their respective vertitives are all "active", as verbs of motion ought to be.

(19) Tutelo:	**pronominals *wi-, yi-, wae-***		**pronominals *wa-, ya-, mąk-***	
	hi•-	arrive there		--
	hu•-	come here	ki-hú•	come back
	le•-	go there	ki-lé•	go back
	nį-	walk	k-nį	walk back
		--	ki-lí	go/come back home

Why would this be? The answer has nothing to do with the semantics of these verb forms: It lies in their conjugation patterns. The basic verbs of motion all take very conservative, irregular allomorphs of 1st and 2nd person actor pronominals; they are either H-stems or R-stems. The Kansa forms of the verbs illustrate this. Note that the corresponding common Siouan prefixes are **wa-* '1sg actor' and **ya-* '2sg actor'. The consonantal allomorphs evolve from the *w-* and *y-* respectively.

(20)		1st sg.	2nd sg.
hi	arrive	**p-**hi	**š-**i
hu	come	**p-**hü	**š-**ü
ye	go	**b-**le	**h-**ne
mąyį́	walk	mą-**b-**lį́	mą-**h-**nį́

The corresponding vertitives have an entirely different, and normally regular, conjugation. This is because the vertitive morpheme, *ki-*, intervenes between the pronominal prefixes and the H- or R-initial verb root. Tutelo lost the special and very irregular consonantal pronominal allomorphs that marked H-stems and R-stems, and it is precisely in cases like these that Tutelo has replaced the missing pronominals with new ones, *wi-/mi-* and *yi-/yį-*. Such analogical extension of productive prefixes is only to be expected, but why the stative set of pronominals instead of the active one?

I *think* that the answer to that question lies in the fact that such analogical substitution doesn't always occur immediately. I believe there was a lag between the time the original, *irregular* person prefixes were lost and the time the productive *stative* (or *apparently* stative) set replaced them. In the meantime, how did speakers determine

person and number of the subject? – who was doing what to whom? They did what virtually any language does: They used their independent pronouns as subject markers (just like French or any number of other languages).

As I mentioned, independent pronouns, like Dakota *miye, niye* or Omaha *wie, ðie* are not often used in ordinary conversation, because they typically signal pragmatically marked discourse involving contrast or other special emphases. This is not as true in Ohio Valley Siouan, however. Here the independent pronouns are quite often found as subjects, at least in the sentences elicited by Horatio Hale, James Owen Dorsey and John R. Swanton. In Hale's Tutelo they are found in addition to various pronominal prefixes. In Swanton's Ofo, they are often found used with bare verb stems lacking any prefixes – something unheard of elsewhere in Siouan. A computer search of the Ofo and Tutelo databases reveals a great many examples.

(21) **Tutelo** 1st person independent pronouns used with *patient* subject pronominals. There are many additional examples with possessive constructions. All but one of the first set is an R-stem verb (*L* in Tutelo).

(a)
mima **wi**latkúša	I break it (a stick)
mima **wi**lóša	I take it
mima **wi**luká	I turn it over
mima **mi**nątíta	I swallow
míma **mi**kaṭi	I cut (wood)
míma **wi**loxkáha	I tear it

(b) 1st person independent pronouns used with (older) *actor* subject pronominals.
mima á**wa**nąka	I sit on (a stick)
mima ó**wa**lakpé	I drink it
mima **wá**ktamą'wa	I broke it in pieces (a stick)
mima **wá**kaxle•p	I sweep
míma mašę́ e**wa**ǫ́	I use a knife
míma ó**wa**hį́hne	I (used to) thrust

(c) 1st person independent pronouns used with *causative-actor* subject pronominals.
míma xékekó**wa**híye	I did put it (caus.)
míma kohoč'**wa**hiyé-	I (will) cut a hole (caus.)
míma kodébe**wa**híye-	I fold it (caus.)

(d) 1st person independent pronoun used with patient *indirect object* pronominal.
míma okláką	he told me (obj.)

(e) 1st sg. independent pronouns used with 1st plural *patient* subject pronominals.
mima huk **wáe**hį́hne'	we all thrust'
mima **wáe**latkúša	we break it

mima **máe**nąt'ita	we swallow
mi-wa**mi**hta•kai	we are men/Indians (?)

(22) **Ofo examples** of (1sg) independent pronouns used with conjugated verbs.

mí^{n}ti tcáyu	I make
ā̆kī̆thĕ **mí^{n}ti**	I fight
mí^{n}ti txa	I possess
mí^{n}ti batō̆yĕ	I catch
mí^{n}ti āthĕ́	I am dead, I die
puké **mí^{n}ti**	I am warm
mí̆nti atūbaní̆tci	I wrap something up
mí^{n}ti balū̆thĕ	I drown myself
mí^{n}ti abahíti	I kick
mí^{n}ti ī̆yá^{n} ibā̆lĕ	I, a woman, speaks (sic)
mí^{n}ti botĭcĕ́nti	I smoke
mi^{n}tí atcĭkhú	he is giving it to me [I give it to you? -- RLR]
mí^{n}te kiáwe ibā̆kohi	what am I calling?'
mí^{n}ti ni	it is not I

It is probable that *the gap in subject prefixes left by loss of the original irregular pronominal allomorphs, especially with R- and H-stems, was filled by "stative-looking" copies of the* ***prefix portion*** *of the independent pronouns.* So **mima latkúša* 'I break it' becomes *mima wi-latkúša.* (*m* and *w* are conditioned by nasality) This also affects the several verbs of motion in their basic, but not their vertitive forms (because in the basic forms the pronominals were highly irregular, while in the vertitives the pronominals were regular and fully syllabic).

Vertitve stems are K-stems, not H- or R- stems, and just as in Dakota, which lost the special *P-, T-,* and *K*-stems in prehistoric times, Tutelo had extended the regular actor prefixes, *wa-* and *ya-*, etc. to the vertitives.

The comparative data show that the *irregular* R- and H-stems of common Siouan are the ones that have taken stative-*appearing* pronominal morphology in Tutelo. This pattern then seems to have been extended to *all* consonant-initial verb stems in Biloxi. The Siouan irregular verb types began with the consonants *p, t, k, r (including n), w (including m), h,* and *ʔ*. Assuming Biloxi generalized stative *(y)i-* to all such stems, it is easy to see how the pattern could have spread to *all* consonant-initial verbs. There are just not that many additional consonants that can begin verbs. Most would be fricatives. Of the complex stop and fricative types, Biloxi had lost the ejective component regularly. Biloxi has simply extended a distinctive allomorph of the 2nd person from *most* initial consonants to *all* initial consonants. Given the Tutelo changes, Biloxi is not so mysterious after all.

Summary and conclusion. OVS in its unified stage retained the original PSi *Aktionsart* governed active-stative system, with adjectival predicates, at least, marked with patient subject pronominals. *This stage is attested in Tutelo until the end.*

Ofo mostly lost the active-stative distinction due to the fact that verb paradigms were reanalyzed using 3rd person forms as a model. This placed the pronominal prefixes mostly to the left of the locatives, *a-, i-,* and *o-*, and the pronominal vowel was replaced by the vowel of the locative or other stem-initial vowel in over sixty of the most common verbs elicited by Swanton.. Ofo does retain a few traces of Siouan irregular conjugations, especially second person **š-,** with consonant-initial verb stems.

In Tutelo the irregular *R-* and *H-* conjugations apparently became opaque, phonologically or otherwise, to speakers and were replaced, first by independent pronouns (widely attested in Tutelo and Ofo sentences), and then by pronominal prefixes *wi-/mi-* '1sg', *yi-/yį-* '2sg', and *wae-/mae-* '1pl'. This made all of these older irregular, consonant-initial verbs appear to be marked as statives, but, in fact, it was probably the independent pronouns that served as a model for the replacement prefixes.

Biloxi, having lost all active/stative distinctions except in the 2nd person, takes the Tutelo reanalysis a step farther, extending the use of 2nd person **(y)*i-*** from the set of consonant initial verbs that were *irregular* in common Siouan (those with initial **r, w, h, ʔ, p, t, k*) to *all* consonant-initial verbs. Vowel-initial verbs continued to take the *ay-* allomorph of 2nd person when Biloxi, like Ofo, placed many pronominals to the left of locative prefixes.[20] Given what happened in Tutelo, a relatively simple analogical extension yields the mysterious complementarity of 2nd person pronominals in Biloxi, and our understanding of what happened to the active/stative distinction in Ohio Valley Siouan is relatively complete.

Reconstruction: Case alignment in Proto-Siouan.
What, then, *was* case alignment like in Proto-Siouan? The comparative data assembled here may offer a few answers.

Genuine stative, i.e., adjectival, aspectually defined predicates ('be tall, be sick', etc.) were consistently stative morphologically in Proto-Siouan. We have numerous cognate sets illustrating these, and they are overwhelmingly stative. The only subclass of exceptions is the positional verbs, 'be sitting, standing, lying' and 'be alive, live'.

Proto-Siouan, however, apparently lacked the distinction between 'be sitting' and 'sit down', 'be standing' and 'stand up' and 'be lying' and 'lie down'. This stative-inchoative distinction among the positionals is fairly recent, judging from the lack of cognacy across Siouan among the inchoative members of the sets. That may explain why these verbs are historically active. The original verbs included the actions as well as the states and so were active morphologically.

A very few semantically active verbs *may* have been morphologically stative in Proto-Siouan. These could include those verbs that are unanimously stative across the language family today: 'fall down, ache, recover, lack' and perhaps a few others, all with *experiencer* subjects.[21] Strict application of the comparative method, however, will only allow us to reconstruct one of these, namely, 'ache, hurt', because only here do we find cognacy in all major Siouan subgroups.

'Ache' is an especially interesting case because of the kinds of arguments it typically selects. Ordinarily it occurs with a body part noun (the thing that hurts or aches) and a pronominal representing the person(s) experiencing the pain. The resulting clause is structurally ambiguous in that the precise grammatical functions of the body part noun and the pronominal have been inherently unclear in Siouan. This is precisely the kind of syntactic structure that lends itself to easy reinterpretation by speakers.

Body part nouns are among those nouns that are most likely to undergo incorporation in Siouan. There are many examples in all the different subgroups: Lakota, *aphómnamna* 'shake the head about', *iphápȟį* 'lean the head against', *iphášloka* 'pull off over the head', *phášlayela* 'making bare the head' < *pha* 'head'; *hiípašpu* 'pick the teeth' < *hi* 'tooth'; *siyuthípa* 'have a foot cramp' < *si* 'foot', *theziyuthipa* 'have a stomach cramp' < *thezi* 'stomach', *thahuyuthipa* 'have a cramp in the neck' < *thahu* 'neck' (Buechel 1970). Other languages include: Tutelo, {prn}-*yą•t-o-ste•ka* 'to love' < *yą•te* 'heart' (Oliverio 1996); Kansa, *nąǰeląye* 'be brave', *nąǰewahehe* 'be cowardly', *nąǰiǫ* 'love someone very much' < *nąǰe* 'heart' (Rankin 1987); Biloxi, {prn}-*yądihį* 'think of someone constantly', {prn}-*yądiniki* 'be without any sense', {prn}-*yądoye* 'be sad' < *yądi* 'heart' (Dorsey and Swanton 1912). The Tutelo and Biloxi nouns are especially well incorporated, since the pronominal prefix precedes the incorporated nominal.

And of all Siouan verbs 'to ache, hurt' is probably the one most commonly used with a variety of body parts. Take for example Dakotan *hí-ma-yazą* 'My tooth hurts, I have a toothache.' (Buechel 1970) Historically, is this to be analyzed as a transitive sentence,

(23a).?*hí ma yazą*
tooth me hurts
SUBJ. OBJ. VERB
A/the tooth hurts me.

in which *hí* is an ordinary noun subject, 1st sg. *ma* is the direct object, and the verb, *yazą* 'hurt', is in its unmarked third person sg. form?

Or is it an intransitive sentence,

(23b) *hí ma yazą*
tooth my hurts
SUBJ POSS VERB
My tooth hurts.

in which 1st sg. *ma* is the raised possessor of the subject, 'tooth', and the verb is a third person sg. form? Possessor raising is very common in Siouan languages.

Or is it an intransitive sentence,

(23c) *hí ma yazą*
tooth I hurt
INCORP. SUBJ VERB
NOUN STATIVE
I (have a) tooth-ache.

in which *hí* is not the subject but rather an incorporated noun, and *ma* is a genuine stative subject that is infixed in a complex first person verb form?[22]

Utterances of this type are or were susceptible to all three labeled bracketings in several Siouan languages, and it is unclear whether this was originally an intransitive verb or a transitive verb with a body-part subject and a pronominal object that was later reinterpreted as a stative subject.[23] So this particular verb, with its inherent ambiguities, may have been the "foot in the door" by which other active verbs could be reinterpreted as stative if they had experiencer subjects. The comparative verb chart (4) seems to show this pattern undergoing extension verb-by-verb in the different languages, but 'ache, hurt' is the only one of the susceptible verbs to have cognates in every major subgroup Siouan.

The pattern is generally not extended to verbs with most of the instrumental prefixes. Dakotan has innovated a great many statively-marked verbs with the *ka-*, 'by striking', instrumental prefix (Xmelnitsky, Siouan e-list), but comparative evidence makes it highly unlikely that stative verbs in Proto-Siouan could take any instrumental prefix except **aʀa·-* 'by heat' (which is typically stative). Other instrumentals always seem to have the effect of raising the "activity" level of the verb, i.e., they render the verb active or transitive.

So Proto-Siouan seems to have had the aspect-governed active-stative split such as the one Mithun posits in Guaraní. As we have seen, the presence of the few (perhaps just one) *agency*-based statives may have created a new model that served to extend the stative category one lexeme at a time to different degrees and with different verb roots in most of the modern Siouan languages. In most cases innovations cannot even be traced to subgroup nodes: the switch in case alignment for a particular verb mostly affects single languages in diverse subgroups. While most verbs seem to have gone from active to stative, in a few instances there is evidence of passage from stative to active.

Mithun (1991) proposes a Macro-Siouan history based on her perception of how categorial change takes place. Caddoan languages, for example, add uncontrolled or involuntary actions to the list of statively marked verbs (unlike Siouan in which the majority of such verbs, *sneeze, cough*, etc., are active and near the bottom of the

comparative Siouan chart, above). In addition, Caddoan inherent states are marked actively (*be tall, short, strong, big, good*, etc.) while their respective inchoatives (*get tall, become old, turn bad*, etc.) are statives. Without going into detail here, Iroquoian, exemplified by Mohawk, differs by additional, complex but systematic factors, each creating an entire *semantic class* of distinctively marked verbs. In each case the putative change seems to be complete and semantically definable in relatively neat terms.

A verb's status as a member of the class of active verbs that require an experiencer subject may render the verb vulnerable to shift into the stative category but does not often seem to precipitate that shift by itself. Some additional factor is frequently needed, or at least useful, in producing the change in conjugation. Often enough (Crow, Biloxi, Dakotan) that additional factor has been phonological – our old friend "blind and fortuitous" Neogrammarian sound change, although morphemic syncretism (Biloxi) and morpho-syntactic ambiguity and opacity (Dhegiha) have clearly played roles.

In no case within Siouan has the change from active to stative conjugation with experiencer subjects reached "critical mass", provoking a bulk shift of most or all other verbs in the experiencer category into the stative paradigm. Yet the rather uniform end products found in Mithun's projected Macro-Siouan language family subgroups (Siouan, Caddoan, Iroquoian) strongly suggest that such mass shifts should be expected and ultimately occur.

Conclusion.

If Mithun's overall model of semantic categorial change is accurate, it seems to me that we should see a demonstrable amount of quite systematic shift within Siouan, a family with considerable time depth, and that major and minor subgroups of the family should differ according to Mithun's semantic categories.[24] But we do not see this kind of semantic systematicity, even after several millennia. Adopting a more realistic view of how change in morphosyntactic category takes place in natural languages, a view that relies on traditional phonological and piecemeal analogical change types rather than categorical semantic shifts, may not be as advantageous to the Macro-Siouan hypothesis or as attractive to those who quest after Universal Grammar, but it will give us a better diachronic *and synchronic* understanding of the active-stative splits that we actually find.

This view should teach us simply not to expect neat, 100% semantically definable categories in grammar, because, in the end, we are always trapped in the midst of one or another linguistic change. And these changes, in the words of Sapir, will inevitably cause our grammars to "leak".

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A note for field workers:

The status of semantically active but morphologically stative verbs in Siouan is linked to a number of other interesting morphosyntactic questions. These include the role of animacy in grammar, the significance of third person morphology, the problem of noun incorporation and problems involving noun possession. Nothing is simple. Let me give an example.

In the Dhegiha dialects the verb *níe* 'to hurt, to ache' almost always occurs with a body part, just as in Dakotan. But in Dhegiha there is the possibility of empirically testing the hypotheses phrased above with the Dakotan examples, because Dhegiha languages often have third person suffixal morphology, so we should be able to tell a genuine third person verb form from a first person verb form. But do Omaha and Ponca conjugated third persons forms always have suffixal morphology?

There are various possibilities for "I have a tooth ache". How many are viable?

? Hi ą-níe	Is this the way to say it, as in Dakota, with a bare verb?
? Hi-akha ą-níe akha	Is *hi* the subject? Can a non-animate subject take *-akha*?
? Hi ą-ní-abi	Is *hi* the subject? Can *níe* take 3rd person *-abi*?
? Hi wítta níe	Is *ą-* a possessor? Can you have "possessor lowering"?
? Hi (wi)wítta ą-níe	Presumably both can't be possessors. What's what here?
? Hi wítta akha ą-níe akha	How about "animate" *–akha* with the possessor?
? Ą níe	'I ache all over'. Is this possible alone without a body part?

Are body parts with stative verbs like 'hurt, ache' agents – or even subjects? Are the ostensibly stative pronouns then direct objects? Are they raised possessors of the body parts? Or are the pronominals themselves the subjects with the body part playing the role of demoted, incorporated subject? What would constitute evidence and where else should we look for it?

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[2] I wish to thank Fr. Randolph Graczyk, Pamela Munro, John Koontz, David Rood and Johannes Helmbrecht for their protracted discussion of these matters with me via electronic mail. They have

provided numerous insights, although any errors are my own. Kathy Shea and Parrish Williams have kindly provided fresh Ponca data, Randy Graczyk provided Crow data, Quapaw data are from the James Owen Dorsey collection at the National Anthropological Archives of the Smithsonian Institution, Osage data are from Carolyn Quintero (personal communication) and Quintero (1997), Kansa data are from †Maude Rowe. This work has also benefited from exchanges with Dr. Regina Pustet about her statistical analyses of this split in Siouan. Data on Dakotan *ka*-stem statives submitted to the Siouan e-mail list by Constantine Xmelnitsky have also proved very helpful. Dr. Johannes Helmbrecht has provided Hočąk (Winnebago) cognates for many of the Mississippi Valley Siouan forms on my list. These will be incorporated in a future draft.

[3] In La Flesche (1932, CeSNALPS computer version) has 1sg *ą-hű́heka* but 2sg *ðа-hű́heka*, so the verb appears to be stative in the first person but active in the second, returning to stative in the inclusive. It is possible that the conjugation was split according to person, but the possibility of a mistake should not be ruled out, since there are many transcriptional and conjugational problems in La Flesche. Quintero (personal communication) confirms that the verb is entirely stative currently.

[4] I am grateful to David Rood for email discussion of the positionals.

[5] Quintero (2000:197ff.) reports that *íxope* 'tell lies' can be either active or stative, but only in the second person.

[6] Mrs. Rowe was only willing to conjugate *wabį́* with a positional auxiliary, 1sg *wabį́ mįkhé* 'I am bleeding'.

[7] There is a simple form of this stem, *ɣópa* 'snore', which is active. *Išt́ma* means 'sleep' and has the first person *mišt́ma*, which makes the entire compound stative.

[8] My thanks to Carolyn Quintero, David Rood, Randy Graczyk and Jan Ullrich for their help with, and discussion of, these data. Rood and Legendre (1992:389f.) treat these double statives as antipassive constructions within the framework of relational grammar. The "object" member of the pair is thought of as a *chomeur* rather than a direct object.

[9] Kansa and Quapaw both use *oxta* with a causative suffix, *-ye/-de* respectively, to form 'love' from this stative verb normally translated as 'good' or 'pleasing'. The causative is then conjugated with the usual active prefixes. Quapaw, however, also has this verb, *oxtaxti* 'to honor, treat with respect' that seems not to use the causative.

[10] Boas and Deloria (1941:77f.) call these "neutral verbs with two objects." Their 'to be as X as' examples (with pronominal prefixes *ni-* 'you' and *ma-* 'me') are: *ʔí-ni-ma-skokeča* 'I am as large as you'; *ʔí-ni-ma-škola* 'I am as small as you'; *ʔiyé-ni-ma-hąkeča* 'I am as tall as you'; *ʔíya-khiye-hąkečapi* 'they are mutually as tall as each other'; *ʔáo-ni-ma-ptetu* 'I am less (shorter, etc.) than you'. (I have changed Delorias symbols to match my font on a one-to-one basis.)

[11] It is important to note that Siouan languages, unlike Muskogean or certain other language families, are not "fluid-S" languages in which a given verb may appear regularly with either set of subject pronominals, the choice being made on the basis of *control* or *volition*. In Siouan a verb is normally either active or stative without much choice on the part of the speaker. There are apparently only two or three exceptions to this statement.

[12] The first of the 'be lying' paradigms is from the Teton L-dialect (Boas and Deloria 1941:99), the second is from the D-dialect described by Riggs (1893:34).

[13] In some languages pronominal case distinctions are made on the basis of an animacy hierarchy, with first and second person form considered the most animate and third persons less so. That is most likely not the case in Crow, since original motivation for the shift in this case is phonological, and third person

is unmarked. It is difficult to know exactly where inclusive person or first plural would fit into such a framework in Siouan.

[14] All of these sound changes affecting the active/stative split are particularly good examples of the "blind and fortuitous" nature of sound change. I take this to be the basic nature of most such change. Changes described by Labov and other linguists over the past forty years as "socially motivated" were, in fact, never sound changes at all. All involved the mechanism of dialect borrowing or were analogical rather than phonological. Labov (1994) only belatedly recognizes this.

[15] The earlier shape of the second person form of this verb was **š-nįkhé*, but the cluster **šn* commonly reduces to *hn* and finally just *n* in some Dhegiha languages. This leaves the second and third person forms of the verb potentially homophonous, but in Quapaw the vowel has denasalized in the second person. In other dialects there is sometimes an accentual difference.

[16] The Osage root extension, *-ke*, occurs widely, is semantically empty, and is not responsible for the case difference.

[17] I take the term *lexical diffusion* always to refer either to borrowing or analogy. It is not a "third mechanism" for the explanation of exceptions to ordinary phonetic/phonological change.

[18] Mithun seeks to show completed categorical changes comparing Siouan, Caddoan and Iroquoian, but, although the Macro-Siouan hypothesis is quite old, it is still unproven. I can not personally regard Mithun's paper as actually demonstrating such completed changes in any single, widely accepted language family. Thus it remains unclear whether or not changes of the sort we are witnessing in Siouan would ever go on to completion in a semantic sense. One could always argue that more time is needed.

[19] Reflexes of this pronominal are retained in Mandan *rų-* [nų], where it is the normal 1st dual/plural prefix, Catawba *nǫ ~ do-*, where it is a conservative object prefix and formative for the independent pronoun, and Yuchi *nǫ-*, where it is the 1st exclusive actor pronominal prefix, contrasting with a distinct inclusive prefix. The single instance cited above adds Tutelo to the list.

[20] Most semantically stative verbs do not bear locative prefixes, and so are not vowel-initial.

[21] One of the few really general statements one can make about the active/stative shifts in Siouan is, that, if a Siouan verb goes from active to stative conjugation, and phonology or syncretism is *not* the cause, it will be a verb with an experiencer subject.

[22] Most Siouanists have always assumed that Siouan had rather little in the way of noun incorporation. It seems to be in Mithun's "Stage One", i.e., not much more than compounding. But if the third choice above is correct, then incorporation takes on greater significance in Siouan.

[23] Some of the modern languages can disambiguate at least two of these utterances by using definite or indefinite articles with *hi* 'tooth' when it is an independent noun subject. But definite articles are not cognate across the language family and developed independently in the different Siouan subgroups, perhaps in relatively recent times. Cognacy is lacking even between Mississiippi Valley Siouan subgroups.

[24] Siouan time depth is estimated at between 3000 and 4000 years by several methods.