

CENTRAL SIOUAN SYNCOPATING \*V-STEMS<sup>1</sup>

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1. **Introduction.** The Central Siouan languages have a prefixing morphology, with separate series of agent and patient pronominals in the verbal system. Most of the pronominals are essentially invariant in form, but the first and second person agent pronominals (A1 and A2) are represented by two morphologically distinct sets - a regular set and a syncopated one. The regular set reflect Proto-Central Siouan (PCS) first person \*wa- A1 and second person \*ra- A2, from Proto-Siouan \*ya- A2, but the syncopated set reflect \*p- (probably Proto-Siouan (PS) \*\*w-) and \*š- (probably PS \*\*y-) (Koontz 1983, 1985; Rankin 1986a).<sup>2</sup>

A parallel opposition of regular and syncopated forms occurs with reflexes of the protean derivational prefix \*ki-, which had a syncopated form \*k-.

\*wa-, \*ra-, \*ki- / \_\_\_ STEM<sub>REGULAR</sub>  
\*p-, \*š-, \*k- / \_\_\_ STEM<sub>SYNCOPATING</sub>

Syncopated inflection is associated with particular stem-initial segments. The number of distinct roots and stem-forming prefixes that begin with each initial conditioning syncopation is usually small, and there are often exceptions to this conditioning. However, in deference to the assumption that the association was originally strictly phonological, classes of stems that exhibit syncopation are termed X-stems, where X is one of the initials that conditions syncopation; for example, an \*r-stem, a stem that begins with \*r.

As a result of phonological change the syncopated prefixes in each language interact with the stem initial segment to produce personal forms and derived ki-stems in which the originally transparent morphology has become opaque. These opaque patterns of inflection and derivation constitute a series of minor syncopated paradigms conditioned by the underlying stem initial. The diversified syncopated paradigms stand in opposition to the more

unitary regular paradigm.

This paper will summarize the regular paradigm and the well known \*r-stem syncopated paradigm, and then deal with the less well understood \*ʔ-stems and \*w-stems, which, it will be argued, are actually \*V-stems, a conclusion with implications for the understanding of the syncopated paradigms.

2. **Regular Stems.** The regular inflectional pattern is found with stems that begin with fricatives (\*S) or clusters, a category which for purposes of determining regularity includes ejectives (\*Cʔ, \*Sʔ); post- and preaspirates (\*Ch, \*hC); as well as the more obviously complex stop-resonant (\*CR) and fricative-stop (\*SC) pairs. The number of simple fricative and cluster initial stems (roots) that condition the regular paradigm in each language is large, while the number of stem-forming derivational prefixes that form new regular stems is usually quite restricted. In addition each language has roots and derivational prefixes that are regular in spite of having initials that normally condition syncopated inflection.

The prominence of the syncopated paradigms relative to the regular paradigm varies. In Dhegiha and Winnebago, and, to some extent, in Ioway-Otoe, there are a variety of commonly occurring syncopated paradigms, but in Dakotan and especially in Mandan whole syncopated paradigms have been eliminated and many originally syncopating stems are now regular. Table 1 gives representative regular forms in each of the Central Siouan branches: Mandan, Dakotan (represented by Teton), Dhegiha (represented by Omaha-Ponca), Chiwere (i.e., Ioway-Otoe), and Winnebago.

Table 1: Regular Stem Inflection and \*ki-Derivation

	PCS	Ma	Te	OP	IO	Wi
A1	*wa-	wa-	wa-	a-	(h)a-	(h)a-
A2	*ra-	ra-	ya-	ǰa-	ra-	ra-
A3	∅	∅	∅	∅	∅	∅
A12	*wɥ(k)-	ɥ-	ɥ(k)-	ɥ(g)-	(h)ɥ-	(h)ɥ-
KI	*ki-	ki-	ki-	gi-	ki-	ki-

Since interactions of the regular pronominals with the stem are few, only the pronominals are given. Rows A1, A2, A3, and A12 represent first person, second person, third person, and inclusive person agent inflection, respectively. Row KI represents forms with the prefix \*ki, which are variously reflexive possessives, datives, middle voice forms, and/or veritatives, depending on language and stem.

The occurrence of \*y in the Proto-Siouan second person pronominal \*ya- is deduced from Tutelo, Biloxi, and Ofo (Matthews 1958:31,66-68; Carter 1974:142; Koontz 1983:21). Reflexes of the initial consonant of PS \*ya- A2 in the regular paradigm of Crow-Hidatsa and most Central Siouan branches equivocate between \*y and \*r, because of the absolute or almost absolute collapse of \*r and \*y in Crow-Hidatsa, Mandan, Winnebago, and Ioway-Otoe. However, in those Central Siouan branches which do distinguish \*r and \*y, Dakotan and Dhegiha, the attested regular forms suggest \*ra- A2, apparently an irregular development characteristic of Central Siouan.

3. \*r-Stems. The \*r-stems are found with syncopated inflectional patterns in all but Mandan, which, however, retains the syncopated derivational pattern with the prefix ki-. In \*r-stems this has the form \*kV'- < \*k-, e.g., keréh- 'to go back' < \*k-réh- (Hollow 1970:175). Most of the \*r-stems in a given language reflect the instrumental prefixes \*ru- 'by hand' and \*ra- 'by mouth', but \*ré 'to go' is also commonly an \*r-stem, and other simple stems follow this pattern.

Table 2: \*r-Stem Inflection and \*ki-Derivation

	PCS	Ma	Te	OP	IO	Wi
A1	*p-rV		b-lV	b-ǝV	ha-tV	tV
A2	*š-rV		lV	š-nV	s-rV	šV-rV
A3	*rV		yV	ǝV	rV	rV
KI	*k-rV	kV-rV	g-lV	g-ǝV	k-rV	kV-rV

Because the syncopated paradigms often involve modification of the stem-initial, the initial syllable of the stem is given in this table, in addition to any pronominal material. Also, in this

table the A12 row is eliminated, since the inclusive pronominals do not usually enter into the syncopating pattern.

The regularization of the \*r-stems in Mandan has been mentioned already, and the reflexes of the \*r-stem paradigm are mostly quite straightforward in Dakotan and Dhegiha. The main exception is the loss of the second person pronominal \*š- in Dakotan. In Ioway-Otoe and Winnebago the underlying paradigm is also quite straightforward. However, in Ioway-Otoe the regular first person ha- is commonly added to the t- that represents the regular development of the historical form in \*p-r.<sup>3</sup>

4. \*ʔ-Stems as Vowel Stems. The \*r-stem syncopating pattern is essentially reconstructable in phonological terms, with the chief irregularities being wholesale regularization or the introduction of occasional pleonastic elements. The developments of the \*ʔ-stem paradigm, on the other hand, are phonologically quite irregular. The main consistent elements are scattered traces of initial \*ʔ, present most convincing in Winnebago, and a first person usually in [m]. In this case [m] is probably \*w before a nasal vowel, as most of the stems involved have nasal vowels. A typical example of a \*ʔ-stem is provided by the widely distributed \*ḡ 'to do, to use', given in Table 3.

Table 3: Inflection and \*ki-Derivation of \*ḡ

	Ma	Te	Sa	OP	Os	Ks	Qu	IO	Wi
A1		mḡ	mḡ	mḡ	mḡ	mḡ	mḡ	haʔḡ	haʔḡy
A2		nḡ	nḡ	ʒḡ	ʒḡ	ʒḡ	ʒḡ	raʔḡ	ʒʔḡy
A3		ʔḡ	ʔḡ	ʔḡ	ʔḡ	ʔḡ	ʔḡ	ʔḡ	ʔḡy
A12		ʔkʔḡ	ʔkḡ	ʔqḡ	ʔ	ʔqḡ	ʔkḡ	hḡʔḡ	hḡʔḡy
KI		-čʔḡ	-čʔḡ	=gḡ	=kḡ	=gḡ	=kḡ		kʔḡy -kḡ

In this table forms are given for Santee as well as Teton, and for all of the Dhegiha languages, in order to show the full range of variation. The Dakotan \*ki-forms are fragments - the actual stems are kičʔḡ 'to wear; to use one's own', with pleonastic \*ki-. The alternate Winnebago stem is found in hiro...kḡ 'to use'. The Dhegiha \*ki-forms are found in a fossilized form used as an adverb

and postposition \*é=kɔ 'like' (using the protoform to stand for its various reflexes). In Omaha-Ponca this is also the third person of a verb 'to do thus', but in the others the third person of the verb has been regularized to \*é=ki...ɔ.

Leaving aside all the Ioway-Otoe forms and the Winnebago first and inclusive persons as regularized, there are various problems with the phonology of this stem. There is, for example, no regular sound correspondence between Teton nŭ, Omaha-Ponca žá, and Winnebago šʔŭ in the second person, and the unsystematic appearance of \*ʔ in the inclusive and \*ki-form is worrisome.

All of these problems and others surrounding the \*ʔ-stems can be cleared up by assuming that the \*ʔ-stems are actually syncopating vowel-stems (hereafter \*V-stems).<sup>4</sup> Recognizing the erstwhile \*ʔ-stems as \*V-stems leads immediately to two insights.

First, the Dhegiha pattern of the inflection of \*V-stems must be the conservative one, barring only the innovated inclusive form in Omaha-Ponca. For, taking as the Proto-Central Siouan syncopated pronominals not the usual Proto-Central Siouan syncopated forms \*p- A1 and \*š- A2, but rather the hypothetical Proto-Siouan forms \*w- and \*y-, and placing them before \*ŭ 'to use', we obtain the paradigm of Table 4.

Table 4: Reconstructed Paradigm for \*ŭ

	PCS	Ks
A1	*w-ŭ	=- ɔ
A2	*y-ŭ	ž- ɔ
A3	*ŭ	ʔɔ
A12	*wɔk-ŭ	ɔg- ɔ
KI	*k-ŭ	=g- ɔ

The Proto-Central Siouan forms develop by regular sound changes into the forms attested in Dhegiha, exemplified here by those of Kansa.

This discovery is obviously important not only for the light that it sheds on the development of the \*V-stems, but as a significant confirmation of the hypothesis that the syncopated

pronominals are \*w- and \*y-. In confirming the internal reconstruction \*y- it also provides a far more direct confirmation of the existence in Central Siouan of Proto-Siouan \*ya- A2 than has hitherto been recognized.

The second insight is that \*ʔ, where it appears in the \*V-stems, must be epenthetic. Presumably the main natural environment for epenthetic \*ʔ was word initial, in the bare stem, i.e., the unprefixated third person form, as in modern Dakotan.<sup>5</sup> In that case, wherever ʔ now appears postconsonantly it is present by extension from this third person form. That is, the epenthetic \*ʔ of the third person has been taken to be an organic part of the stem, and generalized to inflectional forms in which it did not originally occur.

Instances of \*ʔ-generalization with \*ŷ include the Teton inclusive, but not the Santee inclusive, *vide* Riggs (1968:484a), and the Dakotan \*ki-forms in general, as well as the Winnebago second person, and one of the two \*ki-form alternatives in Winnebago. The Omaha-Ponca inclusive (but not that of the other Dhegiha languages) may also involve analogical extension of \*ʔ, if ʔaŷ represents (older) ʔaʔŷ, from \*akʔŷ.

One pair of forms in Table 3 not so far accounted for are the Dakotan second persons. Since n is not the expected reflex of \*y in this context - that would be čh - the most likely explanation is that Dakotan has reformulated the second persons of \*V-stems on the analogy of the second persons of \*r-stems, which, to use Teton phonetics, have l or n, depending on the nasality of the following vowel. The development is therefore that of the \*r-stems: PS \*\*y-rV > PCS \*š-rV > PDa \*š-RV > Te lV. If the following vowel is nasal, l appears as n, as it does in this paradigm.

It is easy enough to account for the analogy with the \*r-stems. Some of the \*V-stems begin with a front vowel, so that the addition of any derivational prefix would provide the context for the widely attested intervocalic epenthetic \*r.

$$\begin{array}{ccc} V & \underline{\quad} & V & > & V & r & V \\ & & [\text{front}] & & & & [\text{front}] \end{array}$$

For stems that do not begin with front vowels, like \*ŷ, addition of the common derivational prefix \*i APPLICATIVE would provide a

similar context.

$$\begin{array}{ccc} i \text{ \_ } V & > & i \text{ r } V \\ \text{[front]} & & \text{[front]} \end{array}$$

In any event, such an intrusive \*r would be as easily interpreted as organic to the stem as epenthetic  $\text{ʔ}$ . Thus, \*V-stems could easily come to have competing \*r-stem and \*V-stem paradigms, and, subsequently, mixed \*r- and \*V-stem paradigms, which is apparently what has happened in Dakotan.

The remaining form to be accounted for in Table 3 is  $\text{ǣ-ʔ}$  in the Winnebago second persons. This second person is presumably reformulated on the stem  $\text{*ʔǫ}$ , i.e., by taking epenthetic  $\text{*ʔ}$  as organic.<sup>6</sup> The second person in  $\text{ǣ-}$  has been provided by analogy with the majority of C-initial syncopated paradigms.

If \*w- becomes [m] in \*V-stem paradigms only because the following vowel is nasal, and not, say, because  $\text{*w} > \text{m}$ , it would be useful if there were examples of \*V-stems without nasal vowels, to see what happens to \*w- with them. As it happens, there are at least three such stems.

First, Winnebago treats  $\text{ʔ6o} < \text{*6}$  'to shoot at and hit' and  $\text{hi...ʔé} < \text{*i...e}$  'to find' as \*V-stems. However, these stems are regularly or periphrastically inflected nearly everywhere else in Central Siouan, and Winnebago has lost \*w- in the first persons of \*V-stems.

One exception to this regularization occurs in Teton, which treats  $\text{ʔ6}$  'to shoot' as a \*V-stem ( $\text{ʔ-}$ stem) in its inclusive form only, i.e., this stem acts as if it had an organic  $\text{ʔ-}$ initial in the inclusive, where it is  $\text{ʔkʔ6=pi}$  (Boas & Deloria 1941:71; Carter 1974:46-48). Otherwise the stem is regular.

Second, the stem  $\text{*(h)ú}$  'to come' is apparently ambivalent between  $\text{*ú}$  and  $\text{*hú}$ , as the data in Table 5 show.

Table 5: Inflection and \*ki-Derivation of \*(h)ú

	Ma	Te	OP	Os	Qu	IO	Wi
A1		=b- ú	p-hí	p-bū	p-hí		húu
A2		=lú	š- í	š- ū	š- í		š- úu
A3	húr-	=yú	í	hū	hí	hū	húu
KI	k- úh-	k- ú	g- í	k- ū	k- í	k- ú	g- úu

The Teton source for the A1, A2, and A3 forms shown is the second component of the compound motion verb *hi=yú* 'to start to come' < PCS \**thi=ú*. The inflection of *hi=yú* has been progressively regularized during the historical period, and this material reflects the oldest patterns (Riggs 1968:150b; Boas & Deloria 1941:101; Buechel 1970:179b).

The Mandan and Ioway-Otoe paradigms are regular, apart from the vertitive \**ki*-forms, to which we will return shortly.

In Teton the *y* of the third person form represents intrusive \**r* after the front vowel of *hi*. The second person has been transferred to the \**r*-stem pattern, just as in the stems with nasal vowels, though the consonantalism is appropriate for the oral context here. The first person in *b-*, however, apparently represents \**w-* (via \**W*) before the oral vowel *u*, and confirms the stem as an oral \**V*-stem \**ú*. The expected sequence ?*wu* is not found because *wu* is a precluded sequence in Dakotan (Carter, at conference). Uncompounded ?*ú* 'to come' is inflected regularly in Dakotan, and could represent either \**hú* or \**ú*, since \**h* is lost in verb initials, and vowel initial forms take epenthetic ?.

Apart from this relict presence of a syncopating oral \**V*-stem \**ú* in Dakotan, Omaha-Ponca also has the stem ?*i* (representing \**ú*, not \**hú*) in the third person (and in the inclusive, not exemplified here). The remainder of the languages have \**hú* in the third person, and all of the first and second persons outside of Dakotan behave as \**h*-stems, or as regulars, when the stem is regularized.

In contrast, the vertitive root supports \**ú* in all branches, though the Ioway-Otoe and Winnebago stems are at least ambiguous between \**k-ú* and \**k-hú*, since the \**C* and \**Ch* series are merged in

these languages. The vertitive forms in Dakotan and Dhegiha preclude stem-initial \*h.

It appears therefore that 'to come' vacillates between \*hú and \*ú as stems. The \*h-initial and \*V-initial alternants in 'to come' have essentially the same distribution as absence of \*h in two non-verbal roots, cf. Table 6.

Table 6: Two Non-Verbal Roots with \*hV ~ \*V

	PCS	Ma	Te	OP	Os	Ks	Qu	IO	Wi
'day'	*(h)á̄p	há̄p	á̄p-	á̄ba	hó̄pa	há̄ba	hó̄pa	há̄we	há̄á̄p
INDEF	*(h)á=			a=	ha=	ha=	ha=	ha=	ha=

It is possible that these three or four sets represent a previously un- or under recognized correspondence set. In fact, the initial of the 'day' set is one which Carter (1981:1) has used to support Proto-Siouan \*rh. Chafe (1964:855) used it in proposing Macro-Siouan \*hr, and C. Voegelin (1941:248) used it for his own Proto-Siouan \*nh (\*rh in today's notation). Most of the evidence for \*r in these proposals comes from outside Central Siouan, cf. Tutelo "nahambe," etc. It is not clear what the connection might be between this \*rh and \*V-stems.

5. \*w-Stems as Vowel Stems. Rankin's \*w-stems (1986a)<sup>8</sup> are a small collection exemplified by \*í...w̄yx 'to ask a question'. See Table 7.

Table 7: Inflection and \*ki-Derivation of \*í...w̄yx

	Te	Sa	OP	Qu	IO	Wi
A1	-m̄ ȳ	-m̄ ȳ	-m̄ á̄	-m̄ ɔ̄	-p-há̄	-p-á̄
A2	-n̄ȳ	-n̄ȳ	-n̄á̄	-ž̄-ɔ̄	-s-wá̄	-ž̄á̄-wá̄
A3	-ȳȳ	-wá̄	-m̄á̄	-m̄ɔ̄	-wá̄	-wá̄
KI			-g-ž̄á̄			

This table omits the derivational preverb \*i- APPLICATIVE, and includes only the first CV sequence of the stem's base.

Santee has \*w in the third person, but otherwise the stem behaves as \*V-stems usually do in Dakotan. This is one of several forms in Dakotan in which the stem has initial yŷ in Teton, but initial wŷ in Santee, cf. Teton i...yŷya and Santee i...wŷya 'to ask a question'.<sup>9</sup> Rankin suggests that this reflects Proto-Central Siouan \*wŷ, an excluded CV sequence in Dakotan. This excluded sequence has been eliminated by dissimilating either the resonant (in Teton) or the vowel (in Santee).

The Santee version of the Dakotan pattern for \*i...wŷx also appears in Omaha-Ponca. That is to say, the first person in Omaha-Ponca looks like a \*V-stem first person, the second person looks like an \*r-stem second person, and the third person has initial \*w. This is the usual treatment of \*V-stems in Dakotan first and second persons, but not in those of Dhegiha. Dhegiha does not normally shift to the \*r-stem pattern for \*V-stem second persons, but retains the original \*V-stem pattern.

On the other hand, Quapaw does have the usual Dhegiha \*V-stem treatment, while Osage and Kansa have a stem in ɖŷ (corresponding to Teton yŷ) conjugated as an \*r-stem. In addition to the various Dhegiha treatments of this stem enumerated so far, some speakers of both Omaha-Ponca and Osage have the stem in mŷ or mŷ (corresponding to Dakotan wŷ), but conjugated regularly.

Finally, in Ioway-Otoe and Winnebago the stem is in wŷ, matching Dakotan wŷ, but it is inflected as a \*p-stem. The usual development of \*p in initial position in these two languages is w, so that it is reasonable for \*w-initial forms to be transferred to the \*p-stems in these languages.

In view of the incommensurate phonology of the various treatments of the inflected forms of \*i...wŷx, and the different stem initials implied if the attested forms are assigned to known morphological patterns, it is clear that some or all of these treatments are the result of reanalysis. Rankin (1986a) has suggested that the original paradigm may be preserved in Dakotan and Quapaw. I believe, however, that the Dakotan and Quapaw paradigms are not directly cognate, per the discussion above, and that the simplest solution is to treat the Quapaw pattern as the original one. That is, the \*w-stems are in fact \*V-stems with intrusive \*w or \*r between the preverb and base in the stem or third person.

The stem in question here was therefore probably \*i...qx in Proto-Central Siouan, and either \*w was inserted before y, with dissimilation of wy > wq, or \*r was inserted after \*i, with no dissimilation of glide and vowel needed. This is simply Rankin's insight modified to allow for the differences between the V-initial and ʔ-initial conceptions of the \*V-stems.

Table 8: Revised Analysis of the Paradigm of \*i...qx

PCS	
A1	*i-w- qx
A2	*i-y- qx
A3	*i- wqx ~ *i- rqx

In some of the languages the intrusive glide, whether \*w or \*r, has been reinterpreted as organic, and has become the basis for determining either the whole paradigm or the second person form in particular. The whole paradigm is shifted in Ioway-Otoe and Winnebago to the \*p-stems (w-stems in Chiwere and Winnebago), and to the \*r-stems in Osage and Kansa. In Dakotan and Omaha-Ponca the second person only is shifted to the \*r-stems, and in Dakotan this is actually the normal pattern with \*V-stems.

Reconstructable \*V-stems with intrusive \*w ~ \*r include \*f...qx 'to ask a question' and \*6...jš 'to bed down'. In both of these stems the intervocalic context for the intrusive glide is provided by the prefixation of a vowel-final locative prefix, either \*f- APPLICATIVE or \*6- SUPERESSIVE, to a vowel-initial root.

6. **Conclusions.** Evidence has been presented simplifying the treatment of the previously recognized \*ʔ-stems and \*w-stems by treating them as a single class of \*V-stems. The details of this approach account for the non-cognate developments of the \*V-stems, and the approach as a whole provides excellent support for the analysis of the syncopated pronominals as \*w- and \*y-.

It is also plain from the existence of syncopating \*V-stems that the terminology of regular and syncopating stems, for which I bear responsibility (Koontz 1983), is not entirely appropriate.

It appears more likely that regular forms should be termed epenthetic, while syncopated forms are essentially the basic forms, and might be more profitably termed regular. However, to avoid future shifts of this nature, and to avoid using the term regular in connection with the highly irregular paradigms characteristic of the syncopated forms, it might be preferable to refer to the erstwhile regular and syncopated pronominals as long and short, respectively.

The notion that the long pronominals have epenthetic vowels comes from the plausibility of regarding their use with cluster-initial stems as a consequence of mitigating a three consonant cluster by inserting a vowel between the first pair of consonants.

w-CC > wa-CC

y-CC > ya-CC

k-CC > ki-CC

Nevertheless, there are some problems with treating the long pronominals this way. In particular, this approach would entail explaining the differing choice of epenthetic vowels for \*w-/\*y- and \*k- in terms of the consonant of the prefix. This is not at all implausible, but it would be nice to have some parallels elsewhere in the morphology to confirm it.

#### NOTES

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<sup>2</sup> For discussions of the syncopating paradigms in the modern languages see *inter alia* Boas & Swanton (1911:908-928); Boas & Deloria (1941:76-102); Boas (1968:330-335); Rankin (1983, 1986a, 1986b, 1987); Whitman (1947:241-246); Lipkind (1945:22-29); Kennard (1936:9-11); Hollow (1970).

<sup>3</sup> In Ioway-Otoe, *t* becomes *č* before front vowels. In Winnebago orthographic *t* represents [d]. Winnebago *t* is actually a resonant phoneme analogous to Dakotan *d*l̄n. Original \**t* has become *j* (nonfinally) ~ *č* (finally).

<sup>4</sup> As pointed out by Rankin during discussion of this paper at the Conference, the findings of Nicklas (1990:6-7), delivered at the Conference, suggest that Biloxi cognates of the \**ʔ* stems often have a variable initial *h*, e.g., "o<sup>n</sup>ni" ~ "ho<sup>n</sup>ni" 'to do, make'. Until this circumstance is better understood, it would be premature to extend the \**V*-initial analysis of the erstwhile \**ʔ*-stems from Proto-Central Siouan to Proto-Siouan at large, and it may turn out to be necessary to assume some initial consonant even in Proto-Central Siouan. However, for the moment I am inclined to view Biloxi initial *θ* ~ *h* as an epenthetic onset, after the manner of Winnebago initial *h*, or initial *ʔ* in Dakotan.

<sup>5</sup> In Ioway-Otoe and Winnebago, in those forms that have been regularized by substitution of the regular CV-form pronominals for the syncopated C-form pronominals, it is also possible that *ʔ* is present as an intervocalic transition, rather than as a stem initial generalized from the third person.

<sup>6</sup> The analysis of epenthetic \**ʔ* as stem organic must have occurred before the Winnebago shift from epenthetic \**ʔ* to epenthetic *h*, since these stems are treated as *ʔ*-stems, not *h*-stems, but *ʔ* in these forms has escaped the shift of *ʔ* to *h*, presumably due to its status as the stem initial. In comparable fashion Dakotan distinguishes paradigmatically between *ʔ*-stems (\**V*-stems) and *V*-stems with epenthetic *ʔ* in the third person, while Omaha-Ponca distinguishes paradigmatically among these two and regulars in initial *ʔ* from \**k*<sup>ʔ</sup> and \**x*<sup>ʔ</sup>, too.

<sup>7</sup> In this verb the second person, the only form diagnostic of \**V*-stem status in Winnebago, may follow either the \**V*-stem paradigm or the regular paradigm.

<sup>8</sup> This note was presented to a seminar group (Robert L. Rankin, David S. Rood, Allan R. Taylor, Laurel J. Watkins, and myself) meeting occasionally in 1986-87. It was in part a summary of discussions between Rankin and myself, and the \**w*-stem characterization is presented mainly as a classificatory expedient.

Rankin is not sure (October 1990 conversation) which of us originally suggested this characterization. Rankin indicates in the manuscript that \*w-stems are very similar to \*ʔ-stems, but leaves it implicit that they may be conditioned variants of them. The possibility that \*ʔ- and \*w-stems might all be \*V-stems only occurred to me in September-October 1990.

<sup>9</sup> I believe it was Richard T. Carter who drew the attention of members of the Comparative Siouan Workshop (including Robert L. Rankin and myself) to the regularity of these doublets and their Osage cognates in 1984, thereby inspiring most of this.

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