Advances in the study of Siouan languages and linguistics

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Edited by

Catherine Rudin & Bryan J. Gordon

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To Bob, whose knowledge was matched only by his generosity.	

Contents

Preface	vii
Acknowledgments	xv
I Historical Linguistics and Philology	
1 Coordination and related constructions in Omaha-Ponca and in Siouan languages	
Catherine Rudin	3
Indexes	29

Preface

This volume presents a group of papers representing a range of current work on Siouan¹ languages, in memory of our colleague Robert L. Rankin, a towering figure in Siouan linguistics throughout his long career, who passed away in February of 2014.

Beyond honoring a beloved colleague, our aim in this volume is to bring a variety of issues in Siouan linguistics to the attention of the linguistic community. The Siouan language family is a large and important one, with branches geographically distributed over a broad swath of the North American plains and parts of the southeastern United States. This puts it in contact historically with several other families of languages: Algonquian, Iroquoian, Caddoan, Uto-Aztecan, and Muskogean. Siouan languages are, or were historically, spoken by the members of at least 25 ethnic/political groups. One Siouan language, Lakota, is among the handful of indigenous North American languages with younger speakers today. Siouan languages have occasionally risen to prominence in general linguistics, for instance in the study of reduplication (Shaw 1980); and Omaha and Crow (Apsaalooke) have lent their names to two of the basic categories of kinship systems in anthropology. Nonetheless, the Siouan family has been underrepresented in the descriptive and typological literature, and most of the languages in the family are severely understudied. The majority of work on Siouan languages is unpublished, existing only in the form of conference papers or manuscripts.² This volume is a step toward making information on Siouan languages more broadly available and encouraging deeper investigation of the myriad issues they raise.

From the perspective of linguistic typology, Siouan languages have many notable features. Many of these features stand to challenge typological generalizations. Here we briefly sketch a few of the most characteristic features of the Siouan family.

¹ "Siouan" is not to be confused with "Sioux", a controversial term referring to Lakota and Dakota people, rarely to Nakota/Nakoda people too, but never correctly to people of other traditionally Siouan-language-speaking communities.

² Many of these unpublished works are collected in the electronic Siouan Archive, maintained by John Boyle at the University of California at Riverside.

All Siouan languages possess a rich variety of applicative affixes, confirming Polinsky's (2013) observation that applicatives are common in North America and adding another language family to her list of applicative-rich families in the area. Helmbrecht2006 divides the applicatives into three templatic slots: locative applicatives, benefactive applicatives, and applicative markers; all of the Siouan languages sampled by Helmbrecht possess at least two applicative morphemes.

All Siouan languages are strongly head-final, and the consensus among syntacticians working with Siouan languages is that all but the supraclausal projections (and even some of these) are underlyingly head-final in Siouan languages, contra Kayne's (1994) Antisymmetry theory.

All Siouan languages have head-internal relative clauses. A series of strong claims regarding the typological implications of head-internal relative clauses (cf. Cole 1987; Murasugi 2000), including purported distinctions between "Japanese-type" and "Lakota-type" constructions (cf. Watanabe 2004; Williamson 1987; Bonneau 1992), propelled Lakota into the debates of theoretical syntax. It has been pointed out that head-internal relative clauses of the kind found in Lakota and other Siouan languages lack the island restrictions found in other languages. On the other hand, **Murasugi2000** argues that languages with head-internal relative clauses must also have head-external relative clauses, which is not true in Siouan languages.

All Siouan languages have verbal affixes which index subject possession of or relationship with the object. They vary with respect to contexts of obligatoriness of these affixes.

Many Siouan languages have grammaticalized systems of speaker-gender marking, with gender-specific morphology for speech-act markers, address terms, and kinship lexemes.³ Such usage varies depending on stuational factors, however, especially in the case of speech-act markers; see for instance Trechter (1995).

Many Siouan languages have a modal CCV morpheme shape. This does not necessarily imply a preference for CCV phonetic realizations, but may indicate such a preference in the distant past. Another unusual prosodic feature is the preference for second-syllable stress in most Siouan languages. Hoocak may be the only attested language with default third-syllable stress in the world.

Most Siouan languages have ejective stops. The Dhegiha branch is notable for a four-way glottal-state distinction in its stop series (voiced/lenis, tense/pre-aspirated, ejective and aspirated). Outside of the Dhegiha branch are many Siouan languages which have the unusual feature of a phonemic voicing distinction in

³ In the case of kinship terms, lexical choice is driven by the gender of the "ego" deictic center, which coincides with speaker gender when there is 1st-person inflection.

fricatives but not in stops.

Verbs play some typologically unusual, prominent roles in Siouan languages. Diachronically, many grammatical items which rarely grammaticalize from verbs in other languages tend to derive from verbs in Siouan languages. For instance, Rankin (1977) documents the derivation of classifiers and articles from verbs. In some Siouan languages, the source verbs and target grammatical items continue to exist in parallel with substantial semantic overlap. The Omaha positional article t^ho^n 'obviative animate specific standing', for instance, is homophonous with the root of $\acute{a}t^ho^n$ 'stand on'.

This diachronic tendency is mirrored by synchronic flexibility. Siouan languages tend to verb freely — to use nearly any open-class stem as a verb. Thus Lakota *wimačhaša* 'I am a man' is derived from the nominal stem *wičhaša* 'man/person' with the 1st-person stative pronominal ma-.

Dhegiha articles (which have many features in common with positional classifiers in e.g. Mayan languages; see Gordon, 2009) are homophonous with postverbal and postclausal functional items like subordinating conjunctions and aspect and evidentiality markers. They have considerable semantic overlap with them too, a fact which comprises another area of blurriness between nominal and verbal syntax: In Ponca, *niáshiⁿga-ama* may mean 'the [proximate animate plural specific] people', but also may mean either 'they are people' or 'I am told s/he was a person'. Plurality is a part of the semantics of -ama in both the nominal and the first clausal interpretation. To make matters more interesting, these kinds of ambiguity are not always easily resolved by context alone, and may suggest a "simultaneity" (cf. Woolard 1998) at work as part of speakers' competence.

This flexibility, that is, the ability of one and the same root to function in both nominal and verbal contexts, has led to some discussion on the status and quality of the noun/verb distinction in Siouan languages (see e.g. Helmbrecht, 2002, and Ingham, 2001).

Nominal arguments in general are not required in Siouan languages, thematic relations being signaled by pronominal or agreement markers within the verb—including zero markers. This makes Siouan languages relevant to debates about the existence of "pronominal argument" languages (Jelinek 1984) and to the related issues of whether there are languages with truly nonconfigurational or flat structure. The preponderance of evidence in Siouan is for the existence of hierarchical structure, specifically including a VP (for instance, West, 1998; Johnson, this volume; Johnson et al, this volume; and Rosen, this volume).

Although Siouan languages have many remarkable features in common, they vary on many others. Some Siouan languages have noun incorporation, while

others do not. Some Siouan languages have stress-accent systems, and others have pitch-accent systems. Dhegiha languages are notable in having as many as eleven definite/specific articles indexing features such as animacy, proximacy/obviation (or case), posture/position, number, visibility, motion and dispersion; meanwhile other Siouan languages have no fully grammaticalized articles at all.

Some Siouan languages reflect longtime cultural presence on the Plains, while others are located as far east as the Atlantic Coast, and many more show cultural aspects of both regions. Dhegiha-speaking peoples (Quapaw, Osage, Kaw, Omaha and Ponca, and likely Michigamea as well (Kasak (this volume), Koontz 1995) likely lived at the metropolis at Cahokia, perhaps at a time before any of the descendant groups had separated, and have many Eastern Woodlands-style features of traditional governance and religion, in sharp contrast with the more Plains-typical cultural features of close Lakota and Dakota neighbors and relatives.

One seemingly minor but in fact quite significant issue in Siouan linguistics is the matter of language names and their spelling. Often this involves a self-designation in competition with a name imposed by outsiders. Even when an autonym gains currency among linguists there is sometimes no agreed spelling; so for instance the Otoe self-designation is written Jiwere or Chiwere. For the most part in this volume the choice of language designations has been left to the individual chapter authors. However, after a volume reviewer pointed out that the language of the Ho-Chunk or Winnebago people was spelled no less than ten different ways in various chapters, we encouraged authors to choose one of the two spellings used on the tribe's web site: Ho-Chunk or Hoocak. Most have voluntarily complied. In a related move, we decided to retranscribe all Lakota data throughout the volume using the now-standard orthography of the *New Lakota Dictionary* (Ullrich et al, 2008).

The volume is divided into four broad areas (Historical, Applied, Formal/Analytical, and Comparative/Cross-Siouan) described in more detail in separate introductions to each part of the volume. Part I consists of five chapters on historical themes: Ryan Kasak evaluates the evidence for a relationship between Yuchi and Siouan; David Kaufman discusses the participation of some Siouan languages in a Southeastern sprachbund; Rory Larson summarizes current knowledge of Siouan sound changes; and Kathleen Danker and Anthony Grant investigate early attempts to write Hoocak, Kanza, and Osage. Part II opens with Linda Cumberland's interview with Robert Rankin about his work with Kaw language programs. Jimm Goodtracks, Saul Schwartz, and Bryan Gordon present three different perspectives on Baxoje-Jiwere language retention. Justin McBride ap-

plies formal syntax to the solution of a pedagogical problem in teaching Kaw. This applied-linguistics section ends with Jill Greer's sketch grammar of Baxoje-Jiwere. Part III contains formal analyses of individual Siouan languages. David Rood proposes an analysis of /b/ and /g/ in Lakota using the tools of autosegmental phonology and feature geometry. John Boyle elucidates the structure of relative clauses in Hidatsa. Meredith Johnson, Bryan Rosen, and Mateja Schuck, in a series of three interrelated chapters, discuss syntactic constructions in Hoocak including resultatives and VP ellipsis, which they argue show the language has VP and an adjective category. Part IV consists of three chapters which take a broader view of grammar, considering data from across the Siouan family. Catherine Rudin compares coordination constructions across Siouan; Bryan Gordon does the same with information structure and intonation, and Johannes Helmbrecht with nominal possession constructions.

All four of the areas represented by this volume are ones to which Bob Rankin contributed. His scholarly publications centered primarily around Siouan historical phonology, but included works ranging from dictionaries to toponym studies, from philological investigation of early Siouanists to description of grammaticalization pathways. He was deeply involved in language retention efforts with the Kaw Language Project. Other interests included archeology, linguistic typology, Iroquoian and Muskogean languages, and the history of linguistics.

Bob was a major figure in Siouan linguistics, a mentor to nearly all living Siouanists, and a mainstay of the annual Siouan and Caddoan Linguistics Conference meetings for decades. Trained in Romance and Indo-European linguistics, with a specialty in Romanian (Ph.D. University of Chicago 1972), he shifted gears soon after leaving graduate school, and became an expert in Siouan languages, especially the Dhegiha branch, with special focus on Kaw. From the mid 1970s through the end of his life, he devoted himself to Siouan studies, both practical and scholarly. His long association with the Kaw Tribe led to a grammar and dictionary of that language (see Cumberland, this volume), and he also produced a grammar of Quapaw, and briefly conducted field work on Omaha-Ponca and Osage. At the University of Kansas he directed dissertations on Lakota (Trechter, 1995) and Tutelo (Oliverio, 1996) as well as several M.A. theses on Siouan languages, and taught a wide variety of courses including field methods and structure of Lakota and Kansa as well as more theoretical courses in phonology, syntax, and historical linguistics. Perhaps Bob's greatest gift to the field was his encouragement of others. At conferences and on the Siouan List email forum, he was unfailingly patient and encouraging, answering all questions seriously, explaining linguistic terms to non-linguist participants and basic facts of Siouan languages to general linguists with equal enthusiasm and lack of condescension. Following his untimely passing, a special session was held at the 2014 Siouan and Caddoan Linguistics Conference to organize several projects in Bob's honor: The first of these was publication of the Comparative Siouan Dictionary, an immense project comparing cognates across all the Siouan languages, undertaken by Rankin and a group of colleagues in the 1980s. It had been circulated in various manuscript forms but never published. Thanks to David Rood (another founding member of the CSD project), with help from Iren Hartmann, the CSD is now available online (Rankin et al, 2015). The second project was a volume of Bob's conference papers and other previously unpublished or less accessible work, to be collected and edited by a group headed by John P. Boyle and David Rood; that volume, tentatively titled *Siouan Studies: Selected Papers by Robert L. Rankin*, is currently in progress. The third project was a volume of Siouan linguistic work in Bob's memory, which has taken the shape of the present volume.

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Part I Historical Linguistics and Philology

Chapter 1

Coordination and related constructions in Omaha-Ponca and in Siouan languages

Catherine Rudin

Syntactic constructions expressing semantic coordination vary widely across the Siouan language family. A case study of possible coordinating conjunctions in Omaha-Ponca demonstrates that distinguishing coordination from other means of expressing 'and' relations is a non-trivial problem. A survey of words translated as 'and,' 'or,' or 'but' in Siouan languages leads to the conclusion that neither coordinating conjunctions nor the syntactic structures containing them are reconstructable across the Siouan family. It is likely that Proto-Siouan lacked syntactic coordination. KEYWORDS: [Siouan, coordination, subordination, conjunction, comitative]

1 Introduction

All languages have ways of expressing additive, disjunctive, and adversative relations among entities or propositions. In European languages these relations are expressed by two distinct syntactic means: coordination and subordination. In Siouan languages these two types of conjunction construction are also present, but the distinction between them is less robust, less clear, and coordination may not have existed at all historically. Neither coordinating conjunctions ('and,' 'or,' 'but') nor the syntactic structures containing them are reconstructable across the Siouan family.

I begin this examination of coordination in Siouan by defining coordination and discussing some of the issues involved in distinguishing coordinate from subordinate conjunction (§??). This is followed in §?? by a case study of additive coordination and coordinate-like constructions in Omaha-Ponca, the Siouan language with which I am most familiar. §?? is a survey of available data on coordination across all branches and most of the languages in the Siouan language family, with a summary table. §?? concludes the chapter with a discussion of the

(non)universality of coordination constructions and some speculations on the history and origins of coordination in Siouan.

2 Issues in defining and identifying coordination

2.1 The syntax of coordination

Traditionally, coordination is a structure of the type shown in (??):



In this structure two or more conjuncts of identical grammatical category together constitute a larger syntactic unit of the same category. These conjuncts might for instance be noun phrases, verbs, or clauses:



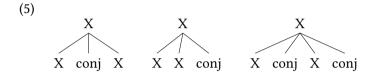
The conjuncts are sisters, of equal syntactic status, in a symmetrical constituent. Neither coordinate is subordinate to or included in the other. Equality of status is seen by coordinate NPs bearing the same case and triggering plural agreement in languages where those categories are overtly marked. In addition coordinate phrases resist extraction (Ross 1968 (1967), Coordinate Structure Constraint), and any movement out of them must be "across the board" movement out of all the conjuncts. Thus in English when two pronouns are coordinated, as in (??); they must both be nominative in subject position, they require a plural verb, and they cannot be separated.

- (3) a. [She and I] were chosen.
 - b. * [She and me]
 - c. * [She and I] was chosen.
 - d. * [She] was chosen [and I].

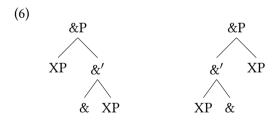
This contrasts with a non-coordinate construction like that in (??), in which the two pronouns are different cases, the verb is singular, agreeing with only the first pronoun, and the subordinate portion of the construction can be moved.

- (4) a. [She] [along with me] was chosen.
 - b. [She] was chosen [along with me].

Coordinate constructions may or may not contain an overt coordinating conjunction, a word translating as *and*, *or*, *but*, etc. If there is one, it may occur between the conjuncts, or after the last one, or may be repeated (before or after each conjunct).



In recent theories of syntax (i.e. Minimalism), coordinate structures are instead treated as asymmetric constructions headed by the coordinator: "CoordP" or "&P," or the similar "Boolean Phrase" structure argued for by Munn (1993). This type of structure is adopted partly for theory-internal reasons such as Kayne's Linear Correspondence Axiom (1994), but also for reasons having to do with intonation, ellipsis, and other phenomena which often suggest that the conjunction is more closely associated with one conjunct than with the other. See Citko (2011) for detailed discussion. Under this view coordinate structures look something like those in (??); presumably Siouan languages, being strongly head-final, would tend to have the left-branching variant shown on the right:



Issues of whether the conjunction forms a constituent with either the preceding or following X, and whether there is such a thing as a Coordination Phrase, are obviously important if one is concerned with distinguishing "true" coordination from other constructions such as comitatives which have similar meanings. Under the "&P" analysis coordination has a syntactic configuration much like comitative or subordination structures, with one conjunct higher than the other, making it less straightforward to explain the distinctive behavior of coordinate structures, as well as less clear what criteria distinguish coordinate from subordinate structures. Numerous works have wrestled with these issues theoretically

and across languages, e.g. Wesche (1995) and Fabricius-Hansen & Ramm (2008). I lack data to deal with such questions in most of the Siouan languages, so the exact structure of apparently coordinate phrases is left vague in what follows. Detailed research within each language will be needed to sort it out.

It is likely that many of the structures which translate "and/or/but" in various Siouan languages are actually not coordinate. Several other types of syntactic constructions often express semantic coordination. These include at least the following: (??) comitatives (prepositional phrases or subordinate clauses expressing "accompaniment" or a "with" relation); (??) adverbial clauses with temporal or other subordinate relations to a matrix clause ("when," "although," "having done X," etc.); (??) simple listing of nouns, verbs, or clauses (that is, concatenation of separate items which do not form a larger constituent of any kind, sometimes with elements meaning "too," "also," "furthermore," "however" or a phrase which sums them up ("both," "all"); (??) co-subordinate or clause-chaining constructions, (see e.g. Graczyk 2007; Boyle 2007).

There are a number of problematic coordination constructions in languages of the world, for instance a coordinator analyzed as a transitive verb in a Papua New Guinean language (**BrownDryer2008**), partial/covert coordination of the *nie s Ivan* 'we with Ivan' = 'Ivan and I ' type in Slavic (e.g. McNally 1993; Larson 2014), special treatment of commonly linked items (**Waelchli1995**), and overlaps with serial constructions (Carstens 2002). I do not deal with these specifically, but mention them just as a further reminder that the syntax of coordination is not necessarily a simple issue. For a useful typological overview of coordination, see Haspelmath (2007); other general treatments include Johannessen (1998) and van Oirsouw (1987).

2.2 The semantics of coordination

Coordinators join constituents with diverse semantic relations, though the semantic aspects of coordination have received less attention than its syntax. Different authors use widely varying terminology for the meanings coordination can express; see for instance Citko's (??) discussion of Andrej Malchukov's system of classification of coordination constructions into semantic types. Among the terms used in the literature are *Additive*, *Adversative*, *Comitative*, *Consecutive*, *Concessive*, *Contrastive*, *Correction*, *Disjunctive*, *Mirative* and others.

In the cursory survey of the Siouan data below I will for the most part ignore issues of semantics beyond the gross level of meaning indicated by being translated in a grammar or dictionary as 'and' versus 'but' or 'or' — roughly Additive, Adversative, and Disjunctive. From the data available it is often not clear pre-

cisely what range of meanings are covered by a given conjunction. Semantic classification of the conjunctions will require detailed investigation of usage in each individual language, and will surely interact with numerous factors, including modality, adverbial modifiers, same or different subject of conjoined clauses, and so on. I leave this entire area for future research. For the present I simply list all elements which seem to translate 'and,' 'but,' or 'or' in any of their meanings.

2.3 Identifying lexical coordinators

Another issue is that some of these lexical items, although they translate English coordinators, may in fact not be coordinators. This is yet another area which provides fertile ground for future, deeper research into each individual Siouan language. Coordinating conjunctions can be difficult to distinguish from sentenceinitial or sentence-final elements (complementizers, discourse particles, switchreference markers, and other clause-linking morphemes), and from comitative or adverbial words. Coordinators often develop historically into sentence-initial or -final elements, presumably by way of a stage involving elided conjuncts. Historical change can go the other way too: as Mithun (1988) and Stassen (2000) both point out, many languages have coordinating conjunctions which are recently and transparently derived from various sources, including comitative prepositions, adverbial particles, aspect markers, and clausal (subordinating) conjunctions. This leads to situations in which the same word is sometimes a coordinator, sometimes not, and teasing apart the two usages is tricky; such is the case for example with Bulgarian no, ama, ami (Fielder 2008) and Australian English but (Mulder & Thompson 2008). Given the slipperiness of this issue in well-studied European languages, it should be no surprise that identifying coordinators can be problematic when dealing with spoken or inconsistently written data in a language with no tradition of written prose or punctuation conventions.

3 Additive Coordination in Omaha-Ponca

My interest in coordination in Siouan was sparked not by theoretical considerations but by a practical problem of language teaching. In an Omaha language class in 2002, a student's question of how to say 'and' turned out to be unexpectedly hard to answer, with no one word corresponding to English *and*. There are several clause connectors which are at least plausible candidates for coordinators in Omaha-Ponca, but nothing which syntactically coordinates nominal or other non-clausal phrases. To say things like 'I have a cat and two dogs' or

'That dress is black and white' our Omaha-speaking consultants rephrased with non-coordinate constructions, to the sometimes frustrated bewilderment of the English-dominant students. In this section I examine various options for expressing additive coordination ('and') in Omaha-Ponca and consider whether they are true coordination or involve some other strategy such as adverbial modifiers or subordination. This case study illustrates both the richness and complexity of the data and the difficulty of conclusively distinguishing coordination from non-coordinate structures in a Siouan language.

3.1 Coordination of clauses: shi and similar words

The word most commonly offered by Omaha consultants as a translation for 'and' is shi, which often occurs as an apparent sentence conjoiner, or at least a discourse link between sentences. Koontz (1984, p. 52) lists shi along with ki, goⁿ, go"ki. o"ska. and egithe in a table of "sentence introducers" culled from James Owen Dorsey's 19th century Omaha and Ponca materials; the same words are found in my field recordings from 100 years later. It is an open question whether these words start a new sentence or not; i.e. whether the structure is [S shi S] or [S][shi S], with [shi S] constituting a separate sentence. Dorsey apparently considered them to be the start of a new sentence, but it is unclear why. Presumably he heard a preceding pause, or speakers when dictating to him tended to pronounce shi with the following sentence. But there is often a pause or break before a conjunction in English as well, sentences do begin with coordinating conjunctions (in spite of prescriptive prohibitions), and in the more recent view of coordination, the conjunction does form a tighter unit with one of the joined clauses. Even if we assume the entire string [S shi S] is a single sentence, it is unclear whether the two smaller sentences so joined are syntactically coordinated or one subordinate to the other. Omaha has no clear markers of subordination that I know of (e.g. no nonfinite verb forms).

The precise meaning of *shi* is another issue: Koontz states that *shi* differs from the other "introducers" in that it has a meaning of 'again' or 'marks repetition', but this meaning is not always apparent to me. *Shi* sometimes seems to indicate repetition, but not always. In the examples below, ² *shi* (boldfaced) seems to mark

¹ David Rood (pc) points out that [S shi] [S] might be a more expected split into two sentences in a verb final language, but shi is not sentence final, in written texts or spoken prosodic contours.

² These examples are from my field tapes, recorded in the late 1980s and 1990s, in Macy Nebraska. I am grateful to the National Science Foundation and Wenner-Gren Foundation for support, and to the speakers quoted here, Clifford Wolfe Sr., Bertha Wolfe, and Mary Clay, for sharing their language with me. The orthography used in this paper is the "Macy Standard" spelling

not so much repetition as simple additive coordination semantics — 'and also' — or even contrast, as in (??) or (??). In some discourses shi strings together several sentences or clauses in a row, as in (??) and (??). Example (??) in particular is a fairly extended discourse in which nearly every sentence after the first starts with shi, and the discourse is a list of items, with no sense of repetition except the continued idea of praying for something. Note that shi cooccurs with other "sentence introducers," for example, go^nki (in (??)), and with arguably subordinating adverbial ki (in (??)).

(7) Thíshti xtáwithe. **Shi** thíshti xtóⁿthathe. Éshti xtóⁿtha=i ge **shi** you 1sgA.like.2P and you 2A.like.1sgA s/he like.1P=prox? and wishti xtáathe.

I.too sgA.like.3P

'I like you. And you like me. She likes me and I like her too.'

(8) Zhiⁿgá ama águdishti údon wánoⁿ?oⁿ=noⁿ, **shi** águdishti children the some good listen.to.1pLP=нав and some wánoⁿ?oⁿ=bazhi=noⁿ.

listen.to.1plP=neg=hab

'Some of the children are good; they listen to us, but some of them don't listen to us.'

- (9) **Shi** góⁿki shaóⁿ ama ... shaóⁿ xé=ta=i á=bi=ama. and then Sioux the ... Sioux bury=FUT=PROX say=PROX=QUOT 'And the Sioux ... His wish was for the Sioux to bury him.'
- (10) $G\acute{o}^nki$ shi $g\acute{a}=t^he$ $o^ng\acute{a}hi$ ki shi $wach^h\acute{i}gagha$ ama then and that=the 1PLA.go.there when and dancers the $sh\acute{o}^n$ - $gagha=i=t^he$ ki shi $sh\acute{o}^nsho^n$ shi $zhu\acute{a}wagthe$ end-do=PROX=EVID when and right.away and together $agth\acute{e}=t^ha=ama$.

took.1plP.home=EVID=AUX

'We would go there but as soon as the dancers quit they took us right home.'

used at Umoⁿhoⁿ Nation School and the University of Nebraska.

³ '?' in examples marks words which were unclear when transcribing field tapes or whose meaning is unknown. Since the morphological breakdown of most words is immaterial for the purposes of the paper, glosses are not necessarily morpheme-by-morpheme. Clitics are separated with an equal sign.

- (11) a. Wakóⁿda thiⁿk^he shti btháha=ta=miⁿk^he god the too 1sgA.pray=FUT=1sg.AUX 'I'm going to pray to God.'
 - b. *Shi* gáge iⁿdádoⁿ thé amá níkashiⁿga amá shti ewéwaha=t^he and that what this the person the too 1sgA.pray.for.it=EVID 'I (will) pray for the people who had these things.'
 - c. Shi umóⁿhoⁿ ti thoⁿ shti agíwahoⁿ.

 and Omaha house the too 1sgA.pray.for.it.refl.

 'And I (will) pray for my Omaha camp/village.' (i.e. for the present-day reservation)
 - d. *Shi* thónwongtha dúba édi monthín umónhon shti ewéwaha. and town several there 3A.walk Omaha too 1sgA.pray.for.3P 'And I (will) pray for the Omaha who are in various cities.' (i.e. off reservation)
 - e. *Gáge shi* gahí nikashiⁿga. this and chief person 'And for the council.'
 - f. *Shi* uzhóⁿge oⁿgáthe dshtoⁿ.

 and road/path LA.go maybe
 'And for the path we will take.' (i.e. for our lives)
 - g. Awo^nho^n $ego^n\acute{e}=ta=mi^nk^he$ 1sgA.pray thus that=fut=1sg.aux 'I will pray for those things.'

The other "sentence introducers" listed by Dorsey and Koontz include ki, go^n , go^nki , and $kigo^nki$, all meaning 'and, and then'. Their distribution is similar to that of shi; both in Dorsey's texts and in mine, they occur written at the beginning of sentences as well as joining two sentences or clauses, and they indicate a range of connections between those clauses, sometimes temporal and sometimes not.

3.2 Coordination of non-sentential categories: does it exist?

Shi and the other sentence conjoiner/introducers generally do not occur in conjoining contexts other than linking sentences. That is, they appear not to coordinate nominals or other non-clausal categories (though see (??) below). In the case of nominals, several patterns occur, generally consisting of a string of NPs with a word meaning something like 'also' at the end, sometimes with some element between the individual NPs as well.

Koontz (1984, p. 201) gives the formula NP, NP ethorba for conjoined nominals in Dorsey. This pattern is found in modern materials as well. Example (??) is a sentence from the story "Jimmy and Blackie," translated into Omaha as a school booklet in the 1980s, and (??) is an example from a conversation I recorded in 1990. Ethorba is etymologically related to the number two (norba) and probably best treated as an element meaning 'both' or 'the two of them' instead of as a conjunction.

- (12) *I*ⁿnoⁿha ak^ha, iⁿdadi **etho**ⁿ**ba** thethudi gthiⁿ e=shti. my.mother the my.father also here live they=too 'My mom and also my dad, they live here too.'
- (13) Ivan akʰá Silas éthoʰba ukíkizhi. Ivan the Silas also brothers 'Ivan and Silas, those two were brothers.'

Ardis Eschenberg (pc) reports that the elders/language teachers at Umoⁿhoⁿ Nation school in the early 2000s generally used NP, NP shti for conjoined nominals. I have found some examples of this too, but actually very few with this exact pattern. Example (??) is one. Most sentences with shti in my data have variations on the pattern such as shti after a single NP (??), or repeated shti (??), (??). Note that shti cooccurs with shi in (??) to coordinate three NPs: NP shti, NP shti, shi NP. In (??) the second conjunct looks like a postverbal afterthought. The word shti 'too, also' could perhaps be analyzed as a coordinator, but seems more likely to be an adverbial element, perhaps related to xti 'very'.

- (14) Ithádi, ihón akha shti gínita ezhé gonkí ithádi ama, his.father his.mother the too living? and his.father the ihón akhá zhúgigtha=bazhí. his.mother the together=NEG 'His father and his mother are both alive, but his father and mother do not live together.'
- (15) Tim akʰá iwíkoʰ=ta=akʰa Clifford shti utháha
 Tim the 3A.help.1sgP=fut=3Aux Clifford too ?

 uwíkoʰ=ta-akʰa
 3A.help.3P=fut=3Aux

 'Tim will help me and Clifford.'
- (16) *Shi níkashi*ⁿ*ga húto*ⁿ*ga wa'ú shti shaó*ⁿ *shti shi wáxe dúba edí* and person winnebago woman too sioux too and white some there

athí-ama.

3A.arrive-pl.aux

'And a Winnebago woman, some Sioux, and some whites were also there.'

(17) Shi wóndoⁿ ithádi **shti** hóⁿdi ugíkitha ihóⁿ and both his.father too last.night 3A.was.talking.to.3P his.mother *ak*ⁿá **shti**.

the too

'And last night he was talking to both his father and his mother.'

In my elicited data conjoined nominals most often take the form $NP (ego^n)$, $NP \underline{sheno^n}$, with degree elements literally meaning 'so much' or 'that much' as in examples (??) through (??). The awkward literal gloss with 'as ... that extent' could perhaps be better rendered 'as well as ... all of those'. In any case, this seems unlikely to be a coordinate construction.

- (18) *Téska tanúka égoⁿ wazhíⁿga égoⁿ nú shénoⁿ that^hé xtáathe.* cow meat as chicken as potato that.extent eat 1sgA.like 'I like to eat beef and chicken and potatoes.'
- (19) Wathé zhíde égon hinbé ská shénon bthíwin. dress red as shoe white that.extent 1sgA.buy I bought a red dress and white shoes.'
- (20) Wathé zhíde, hinbé ská, watháde pézhitu shénon abthin. dress red shoe white hat green that.extent 1sgA.have 'I have a red dress, white shoes, and a green hat.'
- (21) Sézi $t^h e$ shé **shenoⁿ** áhige $o^n g athi^n$. orange the apple that.extent much 1PLA.have 'We have plenty of (both) oranges and apples.'
- (22) Mary akʰá égoʰ wi shénoʰ Macy ata oʰgátha.

 Mary the as I that.extent Macy to 1plA.go.there
 'Mary and I went to Macy.'
- (23) John akʰá égoʰ Mary akʰá shénoʰ Macy ata ahí=tʰe.

 John the as Mary the that.extent Macy to 3PLA.arrive.there=EVID 'John and Mary went to Macy.'
- (24) Tim akhá Cliffford **égo**ⁿ wi **shéno**ⁿ iwíkoⁿ=ta=akha.

 Tim the Clifford as I that.extent help.1sGP=FUT=3AUX

 'Tim will help Clifford and me.'

This NP *ego*ⁿ, NP *sheno*ⁿ pattern also occurs in bilingual booklets produced by the Umoⁿhoⁿ Nation school; the translations are from the booklets as well:

- (25) Jimmy akha **ego**ⁿ Sabe akha **sheno**ⁿ

 Jimmy the as black the that.extent

 'Jimmy and Blackie' (title of booklet)
- (26) Nuzhiⁿga ga t^hoⁿ e=**ego**ⁿ mizhiⁿga ga t^hoⁿ e=shti **sheno**ⁿ boy this the he=as girl this the she=too that.extent *uwawakizhi*. my.younger.siblings 'This is my little brother and sister.'

A more literal translation of (??) would be 'Like this boy, this girl also, as a group they are my little siblings.' Another pattern combines the previous two: NP *ego*ⁿ, NP *shti*; (??) is an elicited example from my field tapes, (??) a spontaneously produced sentence.

- (27) Mary akhá **égo**n wí=**shti** Macy ata ongátha.

 Mary the as I=too Macy to 1plA.go.there
 'Mary and I went to Macy.'
- (28) *Ihó*ⁿ wiáxchi **égo**ⁿ ithádi **shti** wiáxchi. their.mother just.one so their.father too just.one 'They have the same mother and the same father too.'

Simply juxtaposing a string of nominals is another coordination strategy, and quite a common one, though I will not give any examples. In fact, all of the nominal coordination patterns we have seen so far could be interpreted as simple listing of noun phrases, with some kind of focus element following one or more of the nominals and/or a summing-up element at the end of the nominal string. Given the lack of case marking and near-absence of number agreement in Omaha-Ponca,⁴ as well as the likely status of most if not all lexical noun phrases as adjuncts in this language, the usual tests for coordinate as opposed to other structures tend not to apply, and it is difficult to distinguish for example coordinate from comitative constructions.

A final, very common way of expressing English 'and' in situations involving two participants acting together is with the verb *zhugthe* 'be with, accompany, be together'. This verb sometimes occurs following two nouns which could be

⁴ Third person plural is not audibly marked in many verbs, and in those where it is, it is homophonous with proximate singular marking.

seen as coordinated but are probably just listed; (??) is more literally 'Mary, John, being together they went to Macy.'

(29) Mary akhá John Macy ata zhúgthe ahí.

Mary the John Macy to together arrive.there

'Mary went to Macy with John. /Mary and John went to Macy.'

In non-elicited examples, there is almost never more than one lexical noun phrase with *zhugthe*; instead one nominal is given and the other is understood as accompanying it. In (??) only the woman is mentioned; the other participant is already present in the discourse. In (??) the unmentioned participant is the speaker, and interestingly the verb is first person singular, not plural, indicating that the construction is definitely comitative and not coordination of an overt with a null NP.⁵

- (30) Agthi (i) $t^hediki shi wa'ú shtewi^n$ $zhúgthe agthi=it^he$. 3A.came.home when and woman whatsoever together came.home=EVID 'When he came home, he came home with a woman.' (He and some woman came home.)
- (31) Wa'ú wiwita Tésó n wi n zhuágithe at h í, she= k^h e o n gát h i. woman my White.Buffalo together.1suus 1sgA.arrive this=the 1plA.arrive

'My wife White Buffalo and I are both here; we came here.' (more literally, 'My wife White Buffalo, together with my own, I came here...')

There are thus several ways of expressing semantic coordination of nominals in Omaha-Ponca, but none for which a strong case can be made that it is a syntactic coordinate construction or any clear candidate for a coordinating construction. The nominal "coordination" patterns above are all basically lists of NPs with the option of adding a word or words stressing repetition or accompaniment. The picture is even more dubious for adverbs, nominal modifiers, and other nonclausal constituent types. Koontz (1984) does not mention conjunction of categories other than nominals. I did not think to elicit them in field work, and have not found naturally produced examples. The kind of sentences my Omaha language class students wanted to say, like 'I'm wearing a red and yellow shirt,' seem impossible to express without resorting to multiple clauses ('My shirt is red and it is also yellow.')

⁵ In playback speakers commented that the second verb, at^h i, could have been $o^ng\acute{a}t^h$ i (first person plural), like the verb of the next clause; $zhu\acute{a}githe$ however would still be first person singular.

3.3 Discussion: Once more on shi

Having concluded that Omaha-Ponca has no clear coordinating conjunction or coordination construction for non-clausal coordination, I return briefly to my best candidate for clausal coordinating conjunction, *shi*. In section 2.1 I presented a number of examples of *shi* apparently linking clauses together; however, it may actually be an adverbial of some sort, not a conjunction, in which case Omaha-Ponca would not have any true coordination, even of clauses. It often appears in positions other than clause-initial, most often preverbal, as in the following examples. Here it is clearly not conjoining anything, but does have an 'again' sense:

- (32) Óⁿba wéthabthiⁿ ki shi wat'éxe=ta=ama. day third at and funeral=fut=Aux 'There'll be another funeral Wednesday.' (Wednesday again will be a funeral.)
- (33) $O^n w o^n t hat^h o^n t hisht^h o^n = i t^h edi t ápuska ta shi háthe o^n gák^h i.$ 1PLA.eat finish=PROX when school to and? 1PLA.arrive.back 'After dinner we went back (again) to the school.'
- (34) Óⁿba wiⁿ Ishtíⁿthiⁿkhe ak^há **shi** edí=bi=ama. day one Monkey the and there=PL=QUOT 'One day Monkey was there (again), they say.' (traditional story opening)

However, it is possible that this is a different *shi* from the sentence-coordinating one. Further research is obviously needed. My data contain a few examples in which *shi* might be interpreted as conjoining nominal phrases, following the last in a string of NPs: NP, NP *shi*. None are very convincing, however, and *shi* in them can plausibly be taken as an adverbial expressing repetition. In (??), for instance, fighting was a regular occurrence.

(35) *Umóⁿhoⁿ k^he shaóⁿ k^he shi wóⁿdoⁿ kikína=noⁿ=i
Omaha the Sioux the and both 3A.REFL.fight=HAB=PROX
'The Omaha and the Sioux tribes used to fight each other.'*

This section thus concludes rather inconclusively: Omaha-Ponca apparently has no non-clausal coordination, and may or may not have coordination of clauses.

4 Siouan languages: An overview

At this point we leave the details of Omaha-Ponca and turn to a shallow but broad survey of the Siouan family. In spite of limited data on many members of the family and the challenges of interpretation and analysis, there is quite a lot we can say about coordination in Siouan languages. In several of the languages coordination has been described in some detail. Nearly all of the languages have recorded equivalents of 'and,' and many have equivalents for 'or 'but,' though their morpho-syntactic status is often unclear. In many of the languages coordination of clauses is different than coordination of noun phrases or other categories, as we saw in Omaha-Ponca. Perhaps the most interesting result of a survey of Siouan coordination is the lack of unity within the family. No coordinators are reconstructable, there are no widespread cognates, and strategies for expressing coordination differ from language to language. It appears likely that Proto-Siouan had no true coordination. In this section I briefly describe the data from each sub-branch of Siouan (starting with Dhegiha because it is most familiar to me; information on Omaha-Ponca is repeated in brief form for completeness). No examples are given in this section and no attempt is made to justify the lexical items given as (possible) coordinators; instead, anything mentioned in sources is listed.

4.1 Dhegiha

Omaha-Ponca (data from DorseyND Koontz 1984, Rudin 2003 and my own fieldwork)⁶ has several ways of expressing 'and'. As discussed above, different conjunctions are used to coordinate clauses and NPs. Clauses may be conjoined with *ki*, *go*ⁿ, *shi* 'again, and then,' *go*ⁿ*ki*, *kigo*ⁿ*ki* 'and then'. Dorsey considers *ki* to be Ponca and *go*ⁿ to be Omaha; both of these are said to join "substantive clauses". *Go*ⁿ is likely the same as subordinating (*e*)*go*ⁿ 'having (done),' related to postposition *ego*ⁿ 'like, as'. *Go*ⁿ*ki* and *kigo*ⁿ*ki* are pretty clearly combinations of these two conjunctions. *Shi* is perhaps the best candidate for a true coordinator, although it, like the others listed here, occurs most often sentence initially (conjoining the sentence to the preceding discourse semantically if not syntactically). NPs are occasionally joined by *go*ⁿ; this may actually be the postposition mentioned above. More commonly two NPs are followed by *edo*ⁿ*ba*/*étho*ⁿ*ba* 'also, both;' literally 'the two of them'. A string of three or more NPs may be followed by *edabe*

⁶ These sources use several different orthographies. In the interest of consistency I have spelled all Omaha-Ponca words in the modern "Macy Standard" spelling.

'also'. Two or more NPs can be followed by *shti* 'too'. Although Dorsey does not list it, one of the most common strategies for coordinating NPs in my data is *ego*ⁿ ... *sheno*ⁿ 'both ... and;' literally 'as ... that-extent', Ardis Eschenberg (p.c.) finds *ego*ⁿ ... *tho*ⁿ*zho*ⁿ used in the same way. The most common translation of 'and' with NPs is clearly not syntactic coordination: a comitative construction with the verb *zhugthe* 'be with'. Simple juxtaposition (listing) of conjuncts with no conjunction is common for both S and NP coordination. 'Or' and 'but' in Omaha-Ponca are formed with the 'and' conjunctions for joining clauses, and to the best of my knowledge do not exist at all for NPs. Dorsey lists *go*ⁿ ... *ite ki* 'either ... or', *sho*ⁿ *do*ⁿ*ste* 'either-or, perhaps', and *do*ⁿ*ste* at end of clause 'or' (the latter two in Dorsey's slip file). 'But' is commonly expressed by *shi* 'and' connecting two clauses, the second of which is negative or contrasts in some way.

Osage (data from Quintero 2004) coordinates NPs using éeðǫǫpa 'the two of them' following two or more NPs. (Compare Omaha-Ponca ethonba.) Verb agreement suggests that this is a true coordination structure; however, it is possible that the two NPs are appositive and the plural verb actually agrees with pronominal ée-. Another possible NP coordinator is ški 'also'. Clauses are coordinated by juxtaposition without a conjunction: "There is no Osage equivalent to the English use of and to conjoin sentences; rather, the elements are strung together with no intervening forms of any kind" (??). Quintero gives no information on 'or' or 'but'.

Kaw (Kansa) (data from Cumberland & Rankin 2012; Justin McBride p.c.; Robert Rankin p.c.) has an 'and' coordinator, $\check{s}i$, which is used in a variety of syntactic environments (postverbal, preverbal, postnominal, clause initial) and apparently can conjoin both clauses and nominals. McBride states that it usually seems to be used adverbially ('again') or adjectivally ('another'), but can also symmetrically coordinate clauses. Numerous conjunctions with meanings like 'and, then, so' exist, but all seem to be subordinating rather than coordinating. The conjunction dq 'and, then, so' occurs between clauses and in other coordinating situations; Rankin, in a 2012 email, states that "Kaw ... seems to allow the conjunction dq (often reduced to d-schwa ...) in exactly the same places English would allow 'and''; he suggest this is a result of adopting Spanish coordination structures. Further evidence of Spanish influence is the clearly borrowed coordinator pero 'but'. I have no information on 'or' in Kaw.

Quapaw (data from Rankin2005; Rankin 2002) probably has conjunctions similar to those in the other Dhegiha languages, but I have very little information. Rankin's grammar and dictionary list $\hat{s}i$ 'and' (cf. Omaha-Ponca shi, Kaw $\check{s}i$, but give no indication of how it is used.

4.2 Winnebago-Chiwere

Hoocak (data from Helmbrecht 2004; confirmed by Iren Hartmann p.c.) has three apparently straightforward coordinating conjunctions, which Helmbrecht labels as follows: ánaga 'and' (coordinate); nijgéšge (nigeešge) 'or' (disjunction); nunige 'but' (adversative). The 'and' and 'or' words are used to conjoin all types of syntactic constituents: NP, VP, S, "obliques" (adjunct phrases), and AdvP. The conjunctions are placed between the coordinated phrases, or in the case of three coordinated NPs, preceding the last NP (X Y ánaga Z 'X, Y and Z'). Helmbrecht argues that ánaga conjunction is true coordination: the resulting constituent requires plural agreement, and an overt pronoun is needed to conjoin a 1st or 2nd person. Hoocak also has a comitative construction with the verb hakižu 'to be together,' as well as some other, presumably subordinating conjunctions: naga, hireanaga 'along with' conjoins animate subjects or objects, and clauses can be conjoined with 'eegi 'and then' or šge/hišge 'also, even' (placed after 2nd conjunct). Helmbrecht also discusses negation of one or both conjuncts; a special conjunction haké, used at the beginning of S or NP, expresses 'and not/but not'.

Chiwere (data from Goodtracks 1992 – present; Greer 2016 (this volume); Bryan Gordon, p.c.) has several ways of expressing 'and'. These include words meaning 'with' ($t\acute{o}gre$, $ins\acute{u}^n$, $in\acute{u}^nki$), 'also' ($heda^n$, $-da^n$, na, -ku), 'again' ($\check{s}ige$), and a set of discourse connectives in the form of clefts, with copula $ar\acute{e}$: $ar\acute{e}da$, $ed\acute{a}$, $ar\acute{e}dare$, $\acute{e}dare$, $h\acute{e}dare$. In addition, a string of nominals can be followed by inu^nki or $br\acute{o}ge$. Gordon also lists 'bracketing' conjunctions: $\check{s}u^n$, $gas\acute{u}^n$, $nah\acute{e}\check{s}u^n$, and a number of subordinating connectives. 'But' is $n\acute{u}na$.

4.3 Dakotan

There is information available on several of the Dakotan languages and dialects; some sources include data from more than one dialect. I have found no information on Stoney.

Assiniboine (data from West 2003; Cumberland 2005; Levin 1964) has two main 'and' coordinators, $h\tilde{\imath}k$ and $h\tilde{\imath}kn\acute{a}$, but sources differ somewhat in their descriptions of how these are used. West argues explicitly that $h\tilde{\imath}kn\acute{a}$ conjoins VP or V, not clauses; i.e. it occurs in the context VP $h\tilde{\imath}kn\acute{a}$ VP or V $h\tilde{\imath}kn\acute{a}$ V. She analyzes it as head of a CoP with the first conjunct VP/V as complement and the second one as specifier (pp. 32-38). Clauses are joined by $h\tilde{\imath}k$ repeated after each clause: S $h\tilde{\imath}k$ S $h\tilde{\imath}k$. Cumberland, on the other hand, shows all categories joined by non-repeating $h\tilde{\imath}k$: NP $h\tilde{\imath}k$ NP, V $h\tilde{\imath}k$ V, VP $h\tilde{\imath}k$ VP. (Levin, cited in Stassen 2000: 36) discusses a third coordinator, ka, which conjoins NP. There is also a

comitative construction with *kici* 'with' at the end of a string of NPs. I have no information on 'but' or 'or' in Assiniboine.

Lakota⁷ (data from Rood & Taylor 1996: Ingham2002 Ulrich2016 Boas & Deloria 1941) has several 'and' conjunctions: na, nahán 'and also'; čha, čhankhé 'and so'; yunkhan 'and then'; na can coordinate nouns or clauses, while the others appear to coordinate only clauses. Lakota also has a word meaning 'or': naínš and several expressing contrastive coordination 'but': éyaš, k'éyaš, tkhá, khéš, škhá. Éyaš is also listed as an interjection meaning 'well, but'. Numerous other conjunctions are listed, including ho, honá 'furthermore', nakún 'also', hé un 'therefore', tkháš 'but indeed', and others. Ulrich gives examples of an apparent comitative, kičhí, as well. It is not entirely clear to me whether the 'and/or/but' conjunctions are all coordinators or whether some (or all) are subordinating conjunctions. Rood and Taylor define "conjunction" as connecting two sentences, but at least the 'and' and 'or' words can also conjoin "parts of a sentence, such as nominals or verbs". The position of all the conjunctions is between conjuncts in their examples, but they state there are "two possible positions: in the second slot from the beginning or in the last slot in the sentence." David Rood (p.c.) points out that obligatory ablaut before na and naínš suggests a strong bond between the conjunction and the preceding verb.

Dakota (data from Riggs 1851; Boas & Deloria 1941) has unsurprisingly some similar conjunctions to Lakota, though some also differ. Several words translate 'and': k'a, čha, $u\eta kh\acute{a}\eta$, $nak\acute{u}\eta$. $U\eta kh\acute{a}\eta$ conjoins clauses with different subjects, while k'a conjoins nouns and clauses with same subject; no details are given of the usage of the other 'and' words. 'But' is $tukh\acute{a}$, and 'or' is k'a i.' Boas & Deloria give forms from several dialects; alongside the Lakota forms in the previous paragraph they also list Dakota forms, usually labelled as "Yankton" and/or "Santee" dialect, including k'a 'and, $u\eta kh\acute{a}\eta$ 'and then'.

4.4 Missouri Valley

Crow (data from Graczyk 2007) has very different strategies for conjoining clauses and nominals. For coordinate nominals, the conjunctions are -dak 'and' and -xxo 'or'. Both are suffixes (or enclitics), but at different levels: -dak suffixes to NP, while -xxo suffixes to N'. Both conjunctions are repeated after each conjunct; -dak may and -xxo must be omitted after the final conjunct. There is also a comitative construction involving the transitive verb $\acute{a}xpa$ 'be with' (also 'marry')

⁷ In general I have used the orthography of the source in this paper. However, in the case of Lakota, I have standardized all the disparate orthographies of the various sources to the modern standard spelling system used by the Lakota Language Consortium.

with same-subject marking or an incorporation structure. Clauses in Crow are linked by switch-reference marking rather than conjunction. Graczyk analyzes apparently coordinate clauses as 'co-subordination' or clause-chaining: a string of clauses with switch-reference markers but no sentence final clitic, except for the last clause, which determines the speech-act type of the entire string (eg. declarative). The adversative 'but' relation between clauses is marked with *-htaa* (suffix on clause) or *hehtaa* (sentence connector).

Hidatsa (data from Boyle 2005; 2007; 2011) has significantly changed its coordination constructions in quite recent times. Boyle points out that Crow and Hidatsa share some cognate morphology in the area of conjunctions (e.g. Hidatsa -k is cognate with Crow -dak), but Hidatsa has innovated a semantic distinction involving specificity and inclusiveness of NPs. In the area of clausal/verbal coordination, Hidatsa's former switch-reference markers have evolved into English-like coordinators (Boyle 2011). At present, the following morphemes express 'and': hii coordinates S's; -k coordinates NP (with a nonspecific reading when suffixed to both NPs and a specific reading when suffixed only to the first NP); -šek coordinates NPs with a non-specific reading; -a coordinates V in serial verb construction; -ak (the old Same Subject marker) coordinates V or VP. There is apparently no 'but' coordinator; adversative meaning "is shown with juxtaposition with one element being negated" (John Boyle p.c.).

Mandan (data from Clarkson 2012; Randolph Graczyk p.c.) links clauses via a switch reference system similar to that of Crow. The morpheme *ni* is used both as a same-subject marker for clauses and as a NP coordinator. NP coordination is accomplished with a coordinator following each NP; coordinating conjunctions used in this way include *eheni*, *-kini*, *-hini*, *-kiri*, all meaning 'and'. In modern usage two new coordinators appear, not found in older texts: *hi(i)* with NPs and *ush* with clauses. Both occur between conjuncts rather than after each conjunct. Clarkson claims that coordination is much more common in recent texts than in those from the early 20th century, suggesting that Mandan syntax, like that of Hidatsa, has been restructured under pressure from English. I have no information about alternative or adversative coordination in Mandan.

4.5 Southeastern Siouan

Biloxi (data from Zenes 2009; based on Dorsey & Swanton 1912) has an NP coordinator yq 'and' which suffixes either to each NP or just the last one; it is also possible for NPs simply to be listed. Clauses are coordinated by simple juxtaposition. Zenes treats the latter two constructions (concatenated NPs and S's) as CoordP with a zero coordinator. Coordination of a series of object NPs is ex-

pressed by coordinating clauses with the same verb repeated ('I planted onions, I planted potatoes, I planted turnips'). Disjunction of NPs is expressed by *ha* 'or' following the second NP. Zenes gives no information about 'or' with sentences or clauses. Biloxi also has a comitative construction with *nopa* following the second NP.

Ofo (Dorsey & Swanton 1912; Robert Rankin, p.c.) apparently coordinates clauses only by juxtaposition with no conjunction. I have no further information about Ofo coordination, and none at all about Tutelo.

4.6 Summary

The known possibly-coordinating conjunctions of the Siouan languages are summarized in Tables 1 and 2 To give some sense of their syntax, the conjunctions are shown with the type of constituents they conjoin when this is known; for instance S ki S means ki can occur between two clauses; NP NP shti means shti occurs at the end of a string of NPs.

A partial list of comitative ('with') subordinators is given in Table 3. Presumably the other Siouan languages also have comitative constructions; I list here only those which were mentioned in one of my sources as a common way to express 'and' coordination.

5 Conclusion

What can we learn from the array of facts above? The most striking conclusion that emerges from the data is the lack of unity among the Siouan languages. Even within subfamilies, the Siouan languages are quite diverse in their treatment of coordination. We can identify several areas of disagreement: (??) The languages differ in the types of constituents that can be coordinated, some having only clausal coordination, while others can coordinate NPs and other types of constituents as well, and some may have no true coordination at all, but use various types of subordination, co-subordination, or simple concatenation to express the relations English expresses with 'and'/'or'/'but'. (??) They differ in the constituent order within coordination constructions, with the conjunction following the first conjunct (XP & XP), the second conjunct (XP XP &) or each of the conjuncts (XP & XP &), and may also differ in whether the conjunction forms a constituent with a following or preceding conjunct ((XP &) XP); (XP (&XP)). The hierarchical structure of each of these configurations has not been studied in most of the languages. Given the generally head-final nature of phrase structure

Table 1: Coordinating(?) conjunctions

Language	Additive <i>and</i>	Disjunctive <i>or</i>	Adversative <i>but</i>
Omaha- Ponca	S ki S; NP ki NP S go ⁿ S; NP go ⁿ NP S shi S NP NP edo ⁿ ba/ étho ⁿ ba NP NP NP edabe NP ego ⁿ NP sheno ⁿ NP NP shti	go" S ite ki 'either or' S dshto" shi S dshto" 'maybe and maybe' S sho" S do"ste 'either-or, perhaps' S do"ste 'or'	S shi S-NEG
Osage	NP NP éeðqqpa		
Kaw	S ši S S dą S		pero
Quapaw	çi		
Hoocąk	S <i>ánaga</i> S also conjoins NP, VP, AdvP, oblique	S <i>nįįgėšge</i> S also conjoins NP, VP, AdvP, oblique	nųnįge
Chiwere	šige heda", -da" NP NP inu"ki NP NP bróge		núna
Assiniboine	V hĩkná V, VP hĩkná VP S hĩk S; also with NP, V, VP, etc. S hĩk S hĩk; also with NP, V, VP, etc. NP ka NP		
Lakota	S na S, NP na NP, V na V S yuŋkȟáŋ S S čha S S čhaŋkhé S	S naíŋš S	S éyaš S, NP éyaš NP, V éyaš V k'éyaš tkňá khéš škňá
Dakota	S k'a S, NP k'a NP S uŋkȟáŋ S nakúŋ čha	NP naíŋš NP k'a iš	tukhá

Table 2: Coordinating(?) conjunctions continued

Language	Additive <i>and</i>	Disjunctive <i>or</i>	Adversative <i>but</i>
Crow	NP dak NP dak	N' xxo N' xxo	
Hidatsa	S hii S NP-k; NP-k NP-k NP -šek NP V-a V (serial verb) V-ak V; VP-ak VP		juxtaposition with negation
Mandan	S-ni S ush S ush S NP eheni NP (eheni) NP-kini NP-hini NP-kiri NP(-kiri) NP hii NP		
Biloxi	NP NP ya; NP ya NP ya	NP NP <i>ha</i>	
Ofo	_		
Tutelo	_		

Table 3: Comitative words

Omaha-Ponca	zhugthe
Chiwere	tógre, inú ⁿ , inú ⁿ ki
Assiniboine	kici
Lakota	kičhi
Crow	áxpa
Biloxi	пора

in Siouan languages, if the conjunction heads a coordination phrase it is expected that the complement of the "&" head would be to its left; an XP occurring to the right could be a specifier, which we would expect to be less closely associated with the conjunction than the complement. (??) They differ in the lexical items expressing additive, disjunctive, and adversative coordination. Some of the words or suffixes for 'and'/'or'/'but' are cognate among subfamilies — for instance, most of the Dhegiha branch have [ši] or something similar, and the Dakotan branch share something like [na]. But no coordinators appear to be cognate across the family. (??) Finally, the languages differ also in the expression of comitative and other "semantically coordinated" phrases.

In short, there does not seem to be a "typical Siouan" coordination pattern, nor does it look like we can reconstruct proto-Siouan coordinators. Clearly there has been innovation in at least some of the languages – perhaps all – and at least in one or two cases there has been borrowing of coordinators and/or coordination patterns from European languages, suggesting quite recent change in this semantic field. In at least some languages the most common way to conjoin NPs is with a comitative, not a coordinate construction. (This is my impression in Omaha-Ponca, and Cumberland (p.c.) has the same impression in Assiniboine, for example.) Is it possible there was no morpho-syntactic coordination in proto-Siouan?

In fact, this is not as unlikely as it might first appear. Mithun (1988) suggests overt coordination tends to come with literacy: in spoken language simple concatenation tends to be common, while in writing, where intonational cues are lacking and one cannot assume the same degree of common knowledge with one's audience, explicit morphosyntactic coordination is more useful. It is certainly not the case that unwritten languages never have true coordination, but as a statistical tendency it makes some sense. Many languages, Mithun says, seem to have developed coordinating conjunctions after exposure to written languages or after developing an indigenous tradition of writing. Since Siouan languages were, until recently, not written, perhaps lack of an inherited coordination construction and associated morphology is not surprising. The borrowing or innovation of coordinators as speakers became literate in English or other European languages (as well as perhaps in the Native languages) seems logical under this view.

In spite of the lack of overt morphological or lexical coordinators in some languages, Mithun considers coordination as a syntactic and semantic structure to be universal. Stassen (2000), on the other hand, claims coordination, or at least nominal coordination, is not universal. He divides languages into two types:

"WITH-languages," which have only a comitative (NP with NP) or subordinating strategy for conjoining NPs , and "AND-Languages," which also have a coordinate strategy. Stassen acknowledges that Native American languages tend to be problematic and difficult to classify into his two categories. This preliminary study of the Siouan family certainly bears out the elusiveness of coordination constructions in these languages.

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Abbreviations

1, 2, 3 = first, second, third person; A = agent; AUX = auxiliary; EVID = evidential; FUT = future; HAB = habitual; NEG = negative; P = patient; PL = plural; PROX = proximate; QUOT = quotative; REFL = reflexive; SUUS = suus (reflexive possessive).

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Name index

Boas, Franz, 19 Boyle, John P., 6, 20

Carstens, Vicki, 6 Citko, Barbara, 5 Clarkson, John, 20 Cumberland, Linda A., 17, 18

Deloria, Ella, 19 Dorsey, James Owen, 20, 21

Fabricius-Hansen, Cathrine, 6 Fielder, Grace E., 7

Goodtracks, Jimm G., 18 Graczyk, Randolph Jan, 6, 19 Greer, Jill D., 18

Haspelmath, Martin, 6 Helmbrecht, Johannes, 18

Johannessen, Janne Bondi, 6

Koontz, John E., 14, 16

Larson, Bradley, 6 Levin, Norman Balfour, 18

McNally, Louise, 6 Mithun, Marianne, 7, 24 Mulder, Jean, 7 Munn, Alan, 5

Oirsouw, Robert R. van, 6

Quintero, Carolyn, 17

Ramm, Wiebke, 6 Rankin, Robert L., ix, 17 Riggs, Rev. Stephen Return, 19 Rood, David S., 19 Ross, John Robert, 4 Rudin, Catherine, 16

Stassen, Leon, 7, 18, 24 Swanton, John Reed, 20, 21

Taylor, Allan R., 19 Thompson, Sandra A., 7 Trechter, Sara, viii

Wesche, Birgit, 6 West, Shannon Louise, 18

Zenes, Bozena, 20



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