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ARTICLE

Negation in Crow

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ABSTRACT

The current study analyzes the syntactic structure of negation in Crow, a Siouan language spoken in southeastern Montana. Although a substantial amount of research is conducted on Crow, there has been little attention to the topic of negation. In contrast to other Siouan languages (such as Dakota, Ho-Chunk) that utilize clause-final particles or bipartite negation, this study shows that Crow has two different morphemes *-ssaa* and *-leeta* to denote negation within clause-internal structures. The realization of negative patterns in Crow is consistently systematic and highly structured which reflects both language-specific characteristics and broader typological relevance. The analysis reveals that the negative morphemes in Crow are bound within the verb complex, typically attached to the right of the verb stem and before any aspectual markers. Furthermore, the data shows that the morpheme *-ssaa* is the most common device used to denote negation, while *-leeta* is less used and primarily expresses the meaning of "not exist". This cross-linguistic analysis of negation with other Siouan languages demonstrates that the position of negative markers in Crow is maintained through different clause types including imperative, interrogative, and relativized clauses, among others. This negation system displays a unique strategy involving verbal-bound structure and provides typological insights by showing how negation in polysynthetic languages emerges from clause-internal structures.

Keywords: Crow Language; Siouan Languages; Negation; Verbal Morphology

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1. Introduction

Negation is a communication process that distinguishes between affirmative and negative statements, and this process is universally observed among human languages [1]. All languages utilize at least one strategy for negating a statement; however, the strategies of negation differ across languages, ranging from using suffixes after verbs to separate particles [2–4]. Whereas some languages utilize preverbal elements to negate statements (e.g., French *ne*), others use postverbal ones such as many Native American Languages [2]. Such diversity turns the process of negation into a rich field for typological and syntactic analysis.

The current study aims to analyze negation in Crow, a Siouan language spoken in southeastern Montana. There are approximately 5000 Crow-speakers in southwest Montana [5]. The Missouri River branch of the Siouan language family consistsof two sister languages: Crow and Hidatsa. Crow has different kinds of clitics as well as noun and verb incorporation and the basic word order in Crow is subject-object-verb (SOV) [6]. Crow uses two sets of pronominal affixes. The first set (called set A.) represents the agent of an active verb. The second set (called set B.) represents the patient of an active verb and the subject of a stative verb [6]. Since Crow is a polysynthetic language, it depends heavily on the system of morphology and has several prefixed and suffixed inflectional elements. Furthermore, Crow is a head final language and most functional elements (such as determiners, complementizers, auxiliary verbs) are suffixes. Stems (nouns and verbs) must receive a final suffix indicating illocutionary force, complementation, or speaker attitude [5].

Although the phonological and morphological structures of Crow have been extensively described in the literature (e.g., [5–9], the syntactic properties of negation have received little attention in Siouan languages studies. In particular, Graczyk described the distribution of negation in Crow morphologically, but he did not provide an in-depth account of the relation of negation with other syntactic features like tense, switch-reference, and argument structure.

The main goal of this research is to fill this gap by syntactically describing negation in Crow. Particularly, the current study investigates the location of negative morphemes in Crow and examines whether syntactic features, such as tense, aspect, switch-reference, and argument structures affect the position of negative suffixes in Crow. Then, compare the analysis of this study with how negation is formed in other Siouan languages closely related to Crow (such as Hidatsa, Dakota, Ho-Chunk).

The current study significantly advances understanding in three key aspects. First, since Crow is an underdocumented language and lacks sufficient linguistic description, this study contributes to the literature of studying indigenous languages by providing syntactic documentation of negation in Crow. Second, given that morphosyntactic boundaries are flexible in polysynthetic languages than in analytical ones [4], this study advances our understanding of the process of negation in polysynthetic languages. In other words, syntax and morphology in polysynthetic languages are integrated and one complex verb can express many grammatical elements. Third, this study contributes to the typological literature of negation by investigating clause-internal negation (like in Crow) and comparing it to clause-peripheral negation (like in Ho-Chunk).

The paper is organized as follows. Section 2 introduces a typological overview of negation, identifying cross-linguistic patterns. Section 3 surveys prior research on negation in Siouan languages and establishes the theoretical foundation for the analysis. Section 4 offers a syntactic account of negation in Crow and compares negation structure in Crow with those of related Siouan languages. Section 5 discusses typological and Siouan implications of negation patterns in Crow. Section 6 concludes with implications and suggestions for future research.

2. Negation Across Languages: A Typological Overview

The purpose of negation is to form a construction whose basic role is in asserting that something is not the case [10].

Östen Dahl demonstrates the functional and diachronic motivations for the development of negation strategies, arguing that negative markers frequently arise from discourse particles or emphatic elements that undergo grammaticalization over time [11]. This historical view is supported by Croft who suggests that negation constructions often evolve from emphatic expressions that, through repeated usage, become grammaticalized [12].

Negation is found in all of the world's known languages [13]. It is often expressed by using negative mor-

phemes, clitics or words. No known language uses intonation or changes word order to express negation[3]. Negative morphemes "range from fully inflected negative verbs to fully bound derivational morphemes"[14]. Types of negation that are found in the world's documented languages include negative words, negative verbs, negative particles, negative auxiliary verbs[14]. The term 'particle' implies 'invariance' and it is indeed possible to find languages in which the same invariant particle is used no matter what the sentence type, and no matter what the form of the predicate[3]. Moreover, it is possible for particles to vary according to the mood as in Hungarian or tense as in any Semitic language. These negative particles precede the verb in SVO, VSO, and VOS languages while they might precede or follow the verb in SOV languages[14].

There are several different kinds of negation found in the world's languages. Miestamo mentioned two kinds of standard negation[13]. The first type of negation is Symmetric negation, which is constructed by attaching the negative morpheme to the verb stem with no further modifications. The second type of negation is Asymmetric negation in which the negative form is different from the affirmative. This can be done in many different ways that end with various modifications. Payne mentioned that the use of one of the negative devices would bring those secondary modifications in the sentence[14]. Some modifications are "the neutralization of tense distinction, use of supporting verbs, change in word order, and change in case"[14]. The distinction relies on, in addition to the presence of negative devices, whether or not there is a difference between negative and affirmative forms. That means, in symmetric constructions, there is no difference between negative and affirmative forms other than the presence of negative devices, as it has been shown in examples (1a) and (1b):

Daga (Dagan, spoken in Papua New Guinea)

1.

a. wat agoat mumen
   wat agoat mum-en
   help OBJ.FOC.3PL-3
   'He helped them.'

b. **ya** wat agoat mum-en
   ya wat agoat mum-en
   NEG help OBJ.FOC.3PL-3 'He didn't help them.'

[13]

While in asymmetric constructions further structural differences – asymmetries – are observed between negatives and nonnegative[13]. Examples (2a) and (2b) illustrate this point:

Korean

2.

a. kanda
   kan-da
   go-DECL
   'I go.'

b. ka-ǯi **ani** han-da
   ka-ǯi **ani** han-da
   go-CVB **ani** han-da
   'I do not go.'

[13]

Miestamo points out that Korean is an asymmetric language, as there are further modifications that should have been carried out in negative forms. As can be seen in (2b), there is a modification "where the negative marker is a particle, a 'dummy' auxiliary is added to the clause and the finite verb of the affirmative is modified morphologically."[13].

Another typological dimension is related to the morphological position of negation. While negation in head-marking and polysynthetic languages tends to be morphologically embedded, other languages use a separate syntactic word to express negation. This diversity in the treatment of negation often aligns with other universal tendencies, such as word order[13].

The universal behaviors of negation set the stage for analyzing how negation is structured in polysynthetic, head-marking languages, such as Siouan. Building on the typological patterns of negation across languages, the following section discusses the various negation strategies employed in Siouan languages in order to have a broader overview before

discussing negation in Crow.

3. Negation in Siouan Languages

The Siouan language family consists of about 20 languages. These languages are spoken from the north side of the United States and central Canada to the south side in the Mississippi River, and from the west side in Montana to the east side in the Ohio Valley and the Carolinas [15]. Since Siouan languages are polysynthetic languages, they are characterized by synthetic verb morphology, head-marking properties and active–stative alignment [16,17]. Siouan languages integrate several grammatical functions into a single verb complex [18]. This integration includes negation, pronominal prefixes, aspectual and modal elements. Accordingly, instead of using separate particles, negation in Siouan languages is expressed within the verbal template. This means that syntactic processes, such as negation, are often expressed through affixation to verbs. However, Siouan languages differ in whether they place negative affixes before or after verbs. Dakota, for instance, negates the predicate by employing the negative suffix *–šni*, as demonstrated in (3):

3.
wašté-šni
good-negative suffix
'it is not good.'
[19]

However, Ho-Chunk is characterized by having a bipartite negation system where two negative markers are simultaneously used to negate a predicate. The particle *hąąke* is used before the verb whereas the suffix *-nį* is attached to the verb as shown below:

4.
hąąkéhįį-nį
NEGarrive-NEG
'He did not arrive.'
[20]

Hidatsa, as a Missouri Valley branch of Siouan languages, is very similar to Crow regarding the morphosyntactic structure of negation. In Hidatsa, negation is formed by adding a suffix to the verb root but before any mood or aspectual markers. This process is shown in example (5) where the negative element *–thaa* occurs between the verb root and the declarative mood marker *–ak*.

5.
xare-thaa-ak
rain-NEG-DECL
'It didn't rain.'
[21]

The position of Negative markers in Kansa, a language spoken by the Kansa (Kaw) people in northeastern Kansas, is structurally ordered post-verbally yet this position can be changed depending on a particular aspectual marker [22]. With potential and continuative markers, the negative enclitics in Kansa occur immediately after the verb root and before these aspectual markers, as demonstrated below.

6.
∅-∅-go^{n}ya-(a)zhi-akhá
3CN-3CN.want-NEG-3CN.CONT.rest
"S/he does not want it."

7.
a-shka^{n}-mazhi-ta-mi^{n}khe
1SG.AGT-move-1SG.NEG-POT- 1SG.CONT.sit
"I will not be stirring around."

Kansa utilizes the negative markers *-(a)zhi* or *–mazhi* to indicate 1sg negation and places these markers, as shown in the previous examples, immediately after the main verbs *go^{n}ya* 'want' and *shka^{n}* 'move'.

However, when the non-continuative marker *-(a)be* is used, the negative marker *-azhi* is placed after this aspectual marker.

8.
∅-shká^{n}-(a)be-(a)zhi
3CN-move.around-NCONT-NEG
"S/he did not stir."

The previous examples provided in this section show that negation is structurally expressed differently among Siouan languages although they, presumably, share parallel grammatical structures inherited from the Siouan family. In particular, Dakota, Hidatsa and Kansa utilize a direct strategy in forming negation by attaching a suffix to the verb root. Ho-Chunk shares a similar structure to that found in Dakota and Hidatsa in having a verbal negative suffix but Ho-Chunk adds a preverbal particle in negative structures. The treatment of negation in Dakota, Ho-Chunk and Hidatsa reinforces the idea that they are polysynthetic and rely mainly on complex verb morphology in shaping negation.

After establishing how negation is structurally expressed in some Siouan languages, the next section provides a syntactic structure of standard sentential negation in Crow and investigates how negation in Crow is expressed in various syntactic environments.

4. Data Sources and Methodology

This study adopts a qualitative, descriptive investigation of the morphosyntactically and distributionally characterized properties of Crow, a Missouri Valley Siouan language. As part of the research's typological and theoretical scope, its main data source includes publicly available corpora and descriptive grammars. For simplicity, all examples are written in Standard Crow Orthography, so I have altered the orthography of some examples to better reflect the pronunciation. Thus, I have adopted the list mentioned by Graczyk[23]: doubled vowels represent long vowels, *ch* represents the alveolar affricate /ʧ/, *sh* represents the alveopalatal fricative /ʃ/, *tch* and *ssh* represent the geminates of these consonants /ʧʧ/ and /ʃʃ/, respectively.

All but a few of the data analyzed in the current study are included in two main collections of Crow texts that have been published by Robert H. Lowie: *Crow Texts*[24] and *The Crow Language*[8]. These are rich, naturally occurring discourse resources that are comprised of narratives, dialogues, and speech that are culturally embedded. The data are also accompanied by morpheme-by-morpheme glosses and English translations, so they are ideal for systematic morphological and syntactic analysis. These texts are best for studying negation in a rich variety of authentic, contextually embedded constructions, including imperatives, conditionals, interrogatives, and relativized clauses.

In addition, the study borrows grammatical descriptions and analytical essays from the following sources:

- Wallace[5], who covers incorporation and verb agreement in Crow;
- Graczyk[6], whose monumental grammar remains one of the most definitive works on Crow morphosyntax;
- Bradshaw[7], who discusses in particular the logical structure of Crow's negation.

Together, these resources offer a broad and reliable empirical foundation for this analysis, and they are based on both narrative corpora and theoretical grammars. Though there was no original elicitation of native speakers, these resources involve speech of several Crow consultants, transcribed and analyzed by field linguists. Though the major resources of data do not explicitly record speaker variation, the inclusion of several speakers throughout several decades ensures that identified patterns are not idiosyncratic.

5. Negation in Crow

Crow is a head-marking language and uses two different suffixes in order to express negation *ssaa* and *leeta* (therefore glossed as NEG1 and NEG2, respectively). Bradshaw posits that the former is the most commonly used morpheme, and the scope of it is the Verb Phrase (VP) (i.e. verbal negation), while the latter is less used and its scope is the Noun Phrase (NP or DP) and Sentence (S)[7].

The primary negative morpheme in Crow is *-ssaa* which occurs immediately after the main verb stem and is realized within the complex verb rather than at the periphery of the clause, as shown in example (10) (with the affirmative form given for contrastive purposes in example (9):

9. daláakku
   daláa -kku
   2B return
   "You returned"

10. daláakku**ssaa**
    daláa -kku **-ssaa**
    2B return **NEG1**
    "You did not return"
    [24]

Constructions that use *leeta* place this negative predicative element immediately after the noun stem that is negated, as shown in examples (11 and 12):

11. biliawishik
    bilia -wishi -k
    door exists DEC
    "there is a door"

12. bilialeetak
    bilia **-leeta** -k
    door **NEG2** DEC
    "there is no door"
    [7]

5.1. The Morpheme –ssaa–

Negation patterns in Crow behave similarly across different clause types. To further illustrate this point, the position of the negative morpheme *–ssaa* remains in its position within the verb complex although it is used in different clause types such as, imperative, interrogative, and subordinate clauses. This observation is notable as it suggests that the syntactic behavior of negation is consistent across different syntactic environments.

The Crow distinguishes two classes of tense: future and non-future. Future tense is morphologically marked by the use of specific suffixes, e.g., *–ihma* and *–ii*, which are attached to the verb root. The negation morpheme *–ssaa* appears between the verb root and the future maker, and thus, precedes the future suffix, in negation structures. The example of this order is provided in example (13).

13. bishbiláxautashshiiawa**ssaa**wuihma
bish-biláxau-tashshiia-wa **-ssaa** -w -u -ihma
our pots grease 1A **NEG1** SS PL FUT
"We won't grease our pots"
[7]

As there is no specific present simple tense in Crow, it often makes use of the 'habitual aspectual marker *–i'* to signal repetitive or routinely occurring activities. This is attached to the end of the verb complex and typically before evidential or illocutionary force markers[6]. Negative structures have the negative morpheme *–ssaa* attached immediately after the verb stem and before the habitual marker. The following examples illustrate this structural pattern.

14.
basséewahkáaiik
bassée -wa -hkáa -ii -k
before 1A laugh HAB DEC
"I used to laugh"

15.
basséewahkáa**ssaa**iik
bassée -wa -hkáa **-ssaa** -ii -k
before 1A laugh **NEG1** HAB DEC
"I did not use to laugh"
[5]

Note that Crow uses the adverb *bassée* "before" to indicate that the habitual nature of the activity was regularly happening in the past. This construction is equivalent to the English 'used to'.

Even in the presence of modal verbs, Crow shows a preference for realizing the negative morpheme *-ssaa* within the verb complex and before the modals. For example, in the following construction with *–wima* 'shall', the negative morpheme *-ssaa* occurs before the modal, suggesting that the position of the negative markers in Crow is morphologically fixed within the verb complex rather than clause-peripheral. The following examples illustrate that the negative morpheme *-ssaa* should precede modal verbs:

16.
biimmaaliwihmaachik
bii -mmaali -w-ihmaachi -k
1B enter 1A-FUT DEC
"I will enter"

17.
biimmaali**ssaa**wihmaachik
bii -mmaali **-ssaa** -w-ihmaachi- -k
1B enter **NEG1** 1A-FUT DEC
"I will not enter"
[24]

18.

baakalaaxtá**ssaa**wima			
baa	-kalaaxtá-	**-ssaa**	-wima
1A	forget	**NEG1**	shall

"I shall not forget"

[8]

Crow has a punctual suffix, which indicates (perfective), and it employs the habitual and continuative suffixes in order to indicate (imperfective)[5]. In these cases, the negative morpheme *-ssaa* precedes the punctual markers. Consider the following examples:

19.

buushik		
b	-uushi	-k
1A	eat	DEC

"I ate it"

20.

buusséek			
b	-uus	-sée	-k
1A	eat	PUNC	DEC

"I just now ate it"

[5]

21.

áxxaasheitasii**ssaa**éehtaa					
áxxaashe	-it	-asii	**-ssaa**	-ée	-htaa
sun	yet	appear	**NEG1**	PUNC	although

"although the sun had not yet risen"

[6]

Crow has two qualifier suffixes, *–aachi* and *–ichi*, which are affixed directly following the verb stem to qualify its meaning in most cases. In the negative constructions, the negative morpheme *–ssaa* is inserted between the verb stem and the qualifier suffix as shown in example (24). This ordering is evidence of the fixed verb-internal location of negation in the structure of the clause.

22.

bahkáak		
ba	-hkáa	-k
1A	laugh	DECL

"I laughed"

23.

bahkáaichik			
ba	-hkáa	-ichi	-k
1A	laugh	QUAL	DECL

"I sort of laughed: I smiled"

24.

bahkáa**ssaa**ichik				
ba	-hkáa	**-ssaa**	-ichi	-k
1A	laugh	**NEG1**	QUAL	DECL

"I did not sort of laugh: I did not smile"

[5]

In Crow, negation interacts systematically with diminutive patterns and exhibits syntactic sensitivity to the position of the negative marker *-ssaa*. Example (25) below shows that negation in Crow is morphologically integrated and occurs in verb-internal slots. Specifically, Crow uses the suffix *-káata* to denote a diminutive sense. It occurs after the modifier (verb-noun-adjective) that is diminutivized. When negation occurs, speakers have to split the modifier from the diminutive suffix by adding the negative morpheme *-ssaa* in between them. This construction is illustrated in the following example:

25.

itawasshée**ssaa**káatulak				
it	-awa	-sshée **-ssaa**	-káat-u	-lak
still	some dead **NEG1** DIM-PL	DS		

"there were some still not quite dead"

[8]

The general pattern of verbal negation in Crow works similarly within relativized constructions. Example (26) demonstrates that the negative morpheme *-ssaa* remains within the verb complex, retaining its typical position postverbally although the verb is part of a relative clause. It should be noted that in relativized construction, the negative morpheme *-ssaa* is changed to *-ssee* in certain morphophonological environments, as shown in (26). This process is also true of which-question sentences, as demonstrated in (27):

26.

hisshikyata**ssee**		
hisshi	-kyata	**-ssee**
red	like.PRED	**NEG1**

"which is not red"

27.

shoo**ssee**	
shoo	**-ssee**
which	**NEG1**

"Which way? Which direction?"

[6]

Negation in Crow is used with adjectives without any further modifications. As we have seen in the previous examples, the negative morpheme *-ssaa* occurs immediately after the negated adjective, as shown in (28a) and (28b) below:

28.

a.

baasshéek		
baa	-sshée	-k
1A	dead	DECL

"I am dead"

b.

itbaasshée**ssaa**k				
it	-baa	-sshée	**-ssaa**	-k
still	1A	dead	**NEG1**	DECL

"I am not yet dead"

[24]

Note that the adverb 'yet' does not change the word order because it comes at the beginning of the sentence.

5.2. The Negative Predicate *-leeta*

The negative suffix *-leeta* is usually used to express the meaning of 'not exist' as in example (12) above. However, *-leeta* could be used to denote other similar meanings. It might give the meaning of 'nothing' as in (29):

29.

úu**leeta**dak		
úu	**-leeta**	-dak
do	**NEG2**	DS
"they could do nothing"		

[24]

It should be noted that it is not always the case that *-leeta* occurs immediately after the negated noun stem. When the adverb *táali* "truly", is used, the negative element *-leeta* occurs after the adverb and not the noun stem. Moreover, *-leeta* is contracted with the adverb "truly" as the adverb ends with the same sound that *-leeta* begins with. An example of this phonological reduction is shown in example (30):

30.

baakoochitáa**leeta**k		
baakoochi	-táa-**leeta**	-k
immoral	truly-**NEG2**	DEC
"Truly, nothing is immoral"		

[24]

Crow does not have a perfect aspect. However, the indication to the perfect constructions could be understood from the context. In this regard, *-leeta* is used to form the negative of a perfect construction, as in (31):

31.

awákaaleetak			
aw	-ákaa	-leeta	-k
1A	see	NEG2	DECL
"I have not seen it"			

[6]

5.3. Negation of Plural

To indicate plurality in Crow, *-uu* is added before the clause-final marker[6]. However, when the subject of the negated verb is plural, *uu* replaces *aa* in *ssaa*. Consequently, *ssuu* is used instead of *ssaa* to denote the negative plural. Note that it is not the verb stem itself that takes *–uu,* but one of its suffixes. Examples (32a and b) show the process:

32.

a.	kala**ssaa**k		
	kala	**-ssaa**	-k
	run	**NEG1**	DECL
	"he does not run"		
b.	kala**ssuu**k		
	kala	**-ssuu**	-k
	run	**NEG1**.PL	DECL
	"they do not run"		

[24]

This is not the case when a future event is used. If the subject is plural and the speaker wants to refer to the future, the morpheme *wuu* is used and it means "will.plural". There is no need to add another *–uu* to the negative morpheme *ssaa.* This construction is shown below:

33.

ashiawii**ssaa**wuuk				
ashi	-awii	**-ssaa**	-wuu	-k
tipi	take	**NEG1**	FUT.PL	DECL
"the tipi we will not take it to"				

[8]

5.4. Negating Imperative Constructions

The imperative is formed in Crow, as in English and several languages, by using the base form of the verb with no subject at the beginning, as illustrated in (34) and (35) below:

34.

ikaak	
ikaa	-k
see	DECL
"she saw it"	

35.

ikaah	
ikaa	h
see	IMP
“look at it”	

[6]

However, subjects could be mentioned within imperative sentences, as in (36). Notice that the word *iiwe* means ‘cry’ and the word *dii* means ‘you’. There is a contraction here because *dii* ends with the same sound that *iiwe* begins with.

36.

diiwela	
diiwe	-la
cry.2	IMP.PL
“cry”	

[24]

Forming the negative imperative is accomplished in the same way of the previous cases where negation is formed by attaching the negative morpheme *-ssaa* to the right of the verb stem and before the final imperative clause marker *-h*. Consider the negative construction of the previous example:

37.

ikaa**ssaa**h		
ikaa	**-ssaa**	-h
see	**NEG1**	IMP
“do not look at it”		

[24]

In some negative imperative constructions, the final imperative marker is optional. In these cases, the sentence ends with the negative morpheme. These constructions still indicate imperative, as shown in example (38):

38.

disshi**ssaa**	
disshi	**-ssaa**
dance	**NEG1**
“do not dance”	

[24]

5.5. Lexical Negation

In some cases, Crow lacks antonymous lexemes, like (marry vs. divorce, full vs. empty, do vs. refuse). Thus, Crow has only one lexeme for many of these concepts and *-ssaa* is used to denote the opposite meaning of that lexeme as illustrated in examples (39, 40, and 41). While Crow may have the potential to utilize lexical means of marking opposition or denial—e.g., antonymic verb sets (e.g., ‘know’ vs. ‘not know’)—these lexical substitutes are beyond the scope of the current analysis. We thus restrict the following discussion to productive, morphologically identifiable marking of negation in the verbal and the nominal domains.

39.

uaáxpa**ssaa**k			
ua	-áxpa	**-ssaa**	-k
wife	marry	**NEG1**	DEC
“he divorced his wife”			

40.

awuú**leeta**	
awuú-	**-leeta**
inside	**NEG2**
“it was empty”	

41.

a.	dia	
	do	
	“to do”	
b.	dia**ssaa**	
	dia	**-ssaa**
	do	**NEG1**
	“to refuse”	

[24]

Negation in Crow relies in some cases on the lexicon. This means that some verbs have two different forms, one is used to denote affirmation, and the other denote negation. Examples (42a-b) illustrate the point:

42.

a.	baaéhche	
	baa	-éhche
	1A	know
	“I know”	
b.	baa**alaaxtá**	
	baa	**-alaaxtá**
	1A	**not know**
	“I do not know”	

[24]

Note that there is no need to use the negative morpheme with the previous verb *éhche* “know”. We have to use another lexeme which is *alaaxtá* “not know” in order to negate the verb “know”. It should also be noted that neither word is derived from the other.

It seems that Crow lacks some lexemes to indicate particular meanings. That’s why negation is usually used in contexts to refer to the opposite meaning. Crow lacks, for

instance, the lexeme that has the meaning of '*getting rid of*'. Thus, Crow negates the word '*there*' in order to deliver the meaning of '*free oneself of someone/something*'. It is clarified in the following example:

43.

coo'otbaalakikyola**ssaa**i					
coo'ot-baa		-lak -i	-kyola	**-ssaa**	-i
how-1.CAU-DS-INSTN-be there **NEG1**		FUT.3			

"what could I do to get rid of him? (so that he will not be there?)"

[8]

Negation may also be used to refer to an event that has not yet been occurred. Look at the following example:

44.

báalaahii**ssaa**		
báalaa	-hii	**-ssaa**
winter	arrive	**NEG1**

"before winter, …"

[8]

The meaning of the previous example is that winter has not arrived yet. So the verb 'arrive' is negated to give the meaning of 'before something/someone is coming'.

The post-verbal position of the negative marker *–ssaa* provides insights into the broader structural constraints of Crow syntax. As Gebhardt shows, the position of the verb's person prefixes is fixed in Crow and this strict position should also be applied to the positions of other morphemes such as negative markers[25]. Gebhardt shows that Crow has two kinds of person prefixes and the ordering of these prefixes is fixed: B-prefixes (patient markers) should always come before A-prefixes (agent markers). This hierarchical structure is reflected in the negative constructions in Crow where *–ssaa* is tightly suffixed to the verb stem

5.6. Multiple Negation

It is possible, in Crow, to co-occurrence the two negative morphemes *-ssaa* and *-leeta* within a single sentence, with each yielding independent meaning. In the case of example (45), the *-ssaa* negates the core verb *hi'i* 'arrive', (note that *baa* works as the first singular of the verb *hi'i* "arrive") and *-leeta* serves as the existential verb "to not exist". That is demonstrated in the following example.

Interestingly, Crow has the option of doubled negatives such that two negative morphemes are utilized in the same sentence. I have found just a single case wherein a doubled negative appears to have been used. According to the examples and illustrations obtained from Lowie[24] and Graczyk[6], the doubling of the negative morpheme *–ssaa* does not seem entirely redundant. Rather, the doubling reinforces emphatic, or rather, intensifying interpretations, specifically within the context of the imperative (e.g., example 46: xatsissaalichissaala, "do not stop going"). Such usage of reduplicated negation may have the effect of strengthening the force of the direction (e.g., the imperative) and/or emphasizing the speaker's insistence.

45.

kalambaa**ssaaleeta**				
kal	-am	-baa	**-ssaa**	**-leeta**
already where 1SG.arrive	**NEG1**	**NEG2**		

"there is no place where I have not yet been"

[8]

46.

xatsissaalichi**ssaa**la				
xatsi	**-ssaa**	-lichi	**-ssaa**	-la
move	**NEG1**	MODER	**NEG1**	IMP.PL

"do not stop going"

[8]

Alongside instances involving the co-occurrence of the negative morphemes *–ssaa* and *–leeta* to convey different types of negation (e.g., verbal and existential), Crow also allowed for the duplication of *–ssaa* through serial verb sequences. As can be seen in the following example (47), wherein the two verbs—return and come—are negated by a duplicate copy of the same morpheme *–ssaa*. This characteristic indicates that Crow negation must be locally expressed for every verb found in a multi-verb sequence. By exhibiting such a behavior, the morpheme *–ssaa* does not act as a sentential- or clause-level negator, but rather as a verb-bound negative operator per se.

47.

chi**ssaa**khuu**ssaa**k					
chi	**-ssaa**	-k	-huu	**-ssaa**	-k
return	**NEG1**	DECL	come	**NEG1**	DECL

"she did not turn back and come"

[8]

After providing different syntactic environments of negation across various clause types (declarative, imperative, habitual, future, existential, and relative clauses), **Table 1** below summarizes the morphological patterns of negation in Crow. Each of these types of clauses has accompanying exemplary forms and a brief description for the related morphemes and structural patterning. The data substantiate Crow's consistent verb-bound strategy of negation, with specific placement of negative morphemes like *–ssaa* and *–leeta*.

Table 1. Summary of Negation Patterns in Crow.

Clause Type	Ex.	Gloss	Notes
Declarative	9	Simple verb forms like 'you returned'	Neutral verb constructions
Negative Declarative	10	Verb + -ssaa (e.g., 'you did not return')	-ssaa negates verbal predicate
Existential	11	'there is a door'	Positive existence
Negative Existential	12	'there is no door' using -leeta	-leeta as existential negation
Future	16	'I will enter'	Future tense marked with -ihmaachi
Negative Future	17	'I will not enter' (verb + -ssaa + future)	-ssaa precedes future tense marker
Imperative	35–36	'look at it', cry'	Simple imperative forms
Negative Imperative	37–38	'do not look at it', 'do not dance' (-ssaa imperative form)	-ssaa precedes imperative marker -h or bare stem
Habitual	14	'I used to laugh'	HAB aspect used
Negative Habitual	15	'I did not use to laugh' (with -ssaa)	-ssaa inserted before habitual
Relative/Predicate	26	'which is not red'	Predicate adjectives negated with -ssee
Lexical Negation	39–40–41	Lexical alternation or use of antonyms for negation	Use of antonymic roots (e.g., 'know' vs. 'not know')
Multiple Negation	45–46–47	Both -ssaa and -leeta in same clause; or -ssaa repeated across serial verbs	Scope distributed across serial or coordinated verbs

6. Typological and Siouan Implications of Negation Patterns in Crow

The negation strategy in Crow provides significant insights for both typological negation construction and the different morphosyntactic constructions within the Siouan language family. Crow is characterized as a head-marking and polysynthetic language with active–stative alignment; however, the data in this study presents counterevidence to typological predictions regarding the realization of negation in such languages. According to the data analysis of the current study regarding the position and syntactic behavior of the

negative morpheme *-ssaa* within Crow's verb complex, this section discusses broader implications for typological representations of negation and specifically within the Siouan family.

Typologically, it has been proposed that the canonical clause structure of negation in head-marking, verb-final languages tends to be realized as a verbal affix [2,3]. Crow aligns with this typological prediction and places the negative morpheme *–ssaa* after the verb stem and before final aspectual and mood markers. Nevertheless, the realization of negation in Crow presents counterevidence to the typological prediction which claims that negation is typically placed before verb stems in active–stative languages [2,3]. This is evidenced by data presented in this study, showing that Crow employs negation post-verbally although Crow is classified as an active-stative language.

Another typological assumption claims that morphologically complex languages may provide semantic nuances by repeating morphological markers within one sentence [13]. Crow aligns with this typological prediction by using double negation for emphatic purposes, such as *xatsi**ssaa**lichi**ssaa**la*, 'do not stop going'.

From an intra-family perspective, the system of negation shows diversity within Siouan languages. For instance, the behavior of negation in Ho-Chunk is realized by using a bipartite negation strategy which requires using the preverbal particle *hąąke* and a verbal suffix *-nį* simultaneously. Furthermore, negation in Dakota, Hidatsa and Kansa works similarly to the system of Crow by employing the negative suffix to negate the predicate. However, the position of enclitic negative markers in Kansa can be changed based on specific aspectual markers. Conversely, the strategy of negation in Crow exhibits regular behavior throughout the data regardless of clause type. Particularly, the position of negative morphemes in Crow is morphologically fixed and placed post-verbally.

The previous theoretical implications of the negative constructions in Crow are twofold. First, the results of the current study refine the proposed typological claim by providing evidence that negation in Crow remains embedded within the verb even though Crow is a language with a system of active–stative alignment. Second, it reveals both structural similarities and differences within the Siouan family, indicating that although negation is consistently realized within the verb complex, its position and interaction with other aspectual markers vary across contexts.

7. Conclusions

This study provided a morphological description of Crow negation, which belongs to one of the Missouri Valley Siouan languages that are spoken in southeastern Montana. Crow utilizes two key negative suffixes, *–ssaa* and *-leeta*, to encode nominal and verbal negation, respectively. *–ssaa* immediately attaches to the verb stem and occurs just before the final clause marker, which makes up the verb complex. By contrast, *–leeta* occurs after the negated noun stem and typically signals an existential negative semantics, for example, 'does not exist.'

By exploring a variety of clause structures—such as interrogatives, imperatives, and habituals—the study demonstrates that Crow's negative markers are frequently tied to the verb stem and operate in the clause-internal verbal domain. This morphosyntactic patterning distinguished Crow from other Siouan languages, which utilize bipartite systems of negation or clause-final particles to negate clauses. The Crow data thus support the argument that marking of negation in the language is embedded morphologically within the predicate structure, rather than being on the periphery of the clause.

These findings are part of broader typological studies of negation, particularly head-marking and polysynthetic languages. More specifically, the fixed position of *–ssaa* in the verb complex corresponds to typological predictions by Miestamo [2] and Dryer [3] that in verb-final head-marking languages, negation will remain embedded in the verb phrase. Second, the Crow pattern serves as a counter-example to Miestamo's typological generalization that active–stative alignment languages will frequently have preverbal particles marking negation [2]. In Crow, apart from its active–stative alignment marking, negation is postverbal and morphology-bound, exhibiting one of those exceptions in the direction of cross-linguistic trend that typology tries to describe.

While this work has focused on Crow negational morphology, it also carries relevant findings for work in syntax. Because Crow negation occurs in clause-internal domains, future research should look at its distribution within the structure of TP (Tense Phrase) and consider how negation in Crow interacts syntactically with argument structure, clause type,

and information structure. Such a work in syntax would better elucidate ways in which morphosyntactically grounded negational strategies draw upon more general grammatical structure in Crow and other head-marking languages.

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Abbreviations for Glosses

1 = 1st person pronoun, 2 = 2nd person pronoun, 3 = 3rd person pronoun, A = set A (nominative) agreement, B = set B (accusative), CAU = causative, DECL = declarative, DS = different subject, DUB = dubitative suffix, FUT = future suffix, HAB = habitual suffix, IMP = imperative, INST = instrumental, INSTN = instrumentative, MODER = moderative suffix, NEG1 = 1st negative suffix, NEG2 = 2nd negative suffix, PRED = predicate, PL = plural, PUNC = punctual suffix, S = singular, SS = same subject marker, QUA = qualification suffix, AGT = Agent, CN = Common noun, CONT = Continuative, NCONT = Noncontinuative, POT = Potential.

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