New insights into Lakota syntax: the encoding of arguments and the number of verbal affixes

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Abstract: This paper examines the morphosyntax of transitive constructions in Lakota (Siouan: 6,000 speakers, USA and Canada), with particular emphasis being placed on the encoding of arguments. The analysis of argument marking through pronominal affixes in Lakota transitive constructions raises two main questions: firstly, the existence or non-existence of the zero marker for the third person singular; and secondly, the maximum number of pronominal affixes that can be taken by a verb. The study of these issues presents a considerable challenge since, until now, no one has been able to come up with a solution. This is not surprising since there is hardly any evidence for early stages of development in this language, as it was first put into written form by missionaries in about 1830, and it is therefore very difficult to reconstruct its pre-history, which would allow us to know if third person was ever realized through an overt pronominal affix or if certain constructions involving three pronominal arguments were formerly accepted and, by extension, in order to develop general theories about how and why language changes have occurred.

Despite this limitation, concerning the lack of historical evidence I will attempt to shed some light on these issues by providing fairly conclusive evidence that can help us to ascertain whether the third person is actually marked covertly or whether it is simply not marked at all by examining the behaviour of argument markers in control constructions, as well as discovering exactly how many pronominal affixes a Lakota verb is able to take simultaneously.

Keywords: Lakota language, head-marking language, split-intransitive, argument marking, pronominal affix, ditransitive construction

1. Introduction

This study begins with a description of the main morphosyntactic features of Lakota, and subsequently summarizes previous work concerning the marking of the third person and the maximum number of pronominal affixes that verbs can take, especially in ditransitive constructions. Once all these different views have been presented, I will attempt to provide conclusive evidence as to whether the third person is actually marked covertly or whether it is simply not marked at all by examining the behaviour of

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argument markers in control constructions. Next, I will tackle the question of argument marking in ditransitive predicates in Lakota with the aim of determining whether a verb can carry more than two overt pronominal affixes or, similarly, if a ditransitive verb is able to code all three of its obligatory arguments overtly. Finally, I will attempt to account for the anomalous encoding of themes in Lakota by referring to the notions of alignment and prominence.

As regards its morphosyntactic typological classification, Lakota, a language with a mildly synthetic / partially agglutinative morphology, is considered a head-marking language (Nichols 1986), since the marking of syntactic relations is realized on the head of the clause, and follows a stative-active or split-intransitive alignment system because its intransitive verbs cross-reference subjects in two different ways. Depending on language-specific semantic or lexical criteria, the subject of an intransitive verb in Lakota is, therefore, sometimes marked the same as the subject of a transitive verb (it is cross-referenced with the ‘active’ series) and at other times the same as the direct object (it is cross-referenced with the ‘stative’ series).

1.1. Lakota verbs and their affixes

Lakota verbs fall into two main groups, namely stative verbs and active verbs. These are distinguished mainly by the set of personal pronouns they take. The majority of stative verbs (e.g. ičhágA ‘grow’, yazáŋ ‘hurt’, or káŋ ‘be old’) are intransitive and take personal affixes of the stative series, which are realized as bound morphemes in the verb complex:

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2 I wish to express my gratitude to my anonymous language consultants, native speakers of Lakota (four adults aged 50 years and over living in the Pine Ridge and Rosebud Indian Reservations) with whom I have conducted fieldwork since 2010, for kindly sharing their knowledge of this language with me. I am also very grateful to John E. Koontz and Wayne H. Evans for their valuable comments, which have helped to improve the quality of this paper considerably. The data in this paper come mainly from my native consultants, supplemented with existing language materials such as the Dakota Grammar (Boas & Deloria 1941, 1979) and the Lakota Grammar (Buechel 1939), two dictionaries (Buechel & Manhart 2002; LLC 2011), and three collections of texts (Boas & Deloria 1932; Buechel 1924, 1978). Throughout this paper I will use the Lakȟota Language Consortium orthography system (LLC 2011: 747-748). Likewise, I have glossed and translated all of the examples that occur in the paper, even those taken from the supplementary sources. Needless to say, all errors remain my sole responsibility.

3 The fact that some endings appear in uppercase means that they undergo some type of vowel alternation or ablaut.
### Table 1
The stative series.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1st person singular</td>
<td>…-ma-…</td>
</tr>
<tr>
<td>2nd person singular</td>
<td>…-ni-…</td>
</tr>
<tr>
<td>3rd person singular</td>
<td>…-Ø-…</td>
</tr>
<tr>
<td>1st person dual inclusive</td>
<td>…-uy(k)-…</td>
</tr>
<tr>
<td>1st person exclusive/plural</td>
<td>…-uy(k)-…-pi</td>
</tr>
<tr>
<td>2nd person plural</td>
<td>…-ni-…-pi</td>
</tr>
<tr>
<td>3rd person plural animate</td>
<td></td>
</tr>
<tr>
<td>- collective</td>
<td>…-wičha-…</td>
</tr>
<tr>
<td>- distributive</td>
<td>…-Ø-…pi</td>
</tr>
</tbody>
</table>

Although they are rather uncommon, there are also transitive stative verbs\(^6\) (e.g. *ištúšta* ‘be tired of’, *ištéčA* ‘be ashamed of’, or *iyókiphi* ‘be pleased with’) that include two forms of the stative set simultaneously.

The other most important group of Lakota verbs is referred to as active verbs\(^7\) and is formally known for taking subject personal affixes (i.e. the active series). These affixes are also realized as bound morphemes in the verb:

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\(^4\) In the first person dual and first person plural, a consonant -\(k\)- is added when the next sound is a vowel.

\(^5\) The plural of inanimate arguments of stative verbs is normally marked by reduplication of the last syllable of the verb, although the reduplicated syllable is not predictable.

\(^6\) This group of verbs has also been called ‘neutral verbs with two objects’ (Boas & Deloria 1941), ‘double object verbs’ (Williamson 1979) or ‘stative transitive verbs’ (Rood & Taylor 1996).

\(^7\) This second group of verbs is more heterogeneous than the first and can be grouped into three different classes, based on the form of the affixes they take: Class 1 (e.g. *slolyA* ‘know’), which takes *wa* / *ya* for agent marking, Class 2 (e.g. *yuха* ‘have’), which changes *y* to *bl* and *l* respectively, and Class 3 (e.g. *yanjkA* ‘sit’), which uses the forms *m* and *n*. Furthermore, there are a good number of verbs with irregular paradigms, such as *eyA* ‘say’, *yútA* ‘eat’ or *yA* ‘go’, etc.
Active verbs can be either intransitive or transitive. When the verb is intransitive, it codes the only argument through a pronominal affix of the active set but, when the verb is transitive, its two arguments are marked by the stative and active sets respectively.

Regarding the relationship between the type of pronominal affix and semantic roles (Corral Esteban, 2014:2), in broad terms, the stative series and the active series of pronominal affixes could be considered to be associated with the undergoer and actor macroroles\(^\text{10}\) respectively.

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8 The third person plural inanimate form is never marked overtly in active verbs.

9 The form `-a` is used to form a collective plural of verbs of motion (for example: `áya` ‘They all go there’)

10 ‘Actor’ and ‘Undergoer’ are two concepts adopted by Van Valin (1977) to express generalizations across thematic relations (e.g. ‘Actor’ is a generalization subsuming agent, experiencer, instrument and other roles; ‘Undergoer is a generalization subsuming patient, theme, recipient and other roles).
1.2. Word order in Lakota

Although word order in Lakota may vary for pragmatic reasons, the Sioux languages (De Reuse 1983 for Lakota; Shaw 1980 for Dakota; Cumberland 2006 for Assiniboine, among others) are generally thought to have a canonical order subject + object + verb order especially, in order to avoid ambiguity, in clauses that include two third person singular arguments:

(1) \textit{Wičháša kiŋ \textit{wiŋyaŋ kiŋ ó-Ø-Ø}-kiye}  
\begin{itemize}
  \item man 
  \item the woman 
  \item the STEM\textsuperscript{12}-3SG.STA-3SG.ACT-help
\end{itemize}

\textquote{The man helped the woman'}

(2) \textit{Wiŋyaŋ kiŋ wičháša kiŋ ó-Ø-Ø}-kiye  
\begin{itemize}
  \item man 
  \item the woman 
  \item the STEM-3SG.STA-3SG.ACT-help
\end{itemize}

\textquote{The woman helped the man'}

Although these examples are grammatically correct, sentences including more than one NP are not very common in natural discourse in Lakota, hence it is therefore more common to represent participants by means of pronominal affixes: first and second person are represented by overt pronominal affixes; by contrast, as third person is always represented covertly, it is also usually expressed lexically by demonstratives (e.g. lé ‘this’, hé ‘that’, etc.).

Although it is impossible to ascertain the order of the two third person singular null markers with respect to each other, I venture to place the stative series before the active series, since this is the most common ordering among pronominal affixes in Lakota.

There are two different accounts to determine the relative order of pronominal affixes within the verbal complex: the first is based on the grammatical function of the arguments encoded by the affix, that is, object + subject (e.g. Riggs 1853; Boas & Deloria 1941; Van Valin 1977; Miner 1979; De Reuse 1983; Rood & Taylor 1996) and

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\textsuperscript{11} Although it is impossible to ascertain the order of the two third person singular null markers with respect to each other, I venture to place the stative series before the active series, since this is the most common ordering among pronominal affixes in Lakota.

the second refers to the person of the affix, namely first person + second person (e.g. Riggs 1892; Buechel 1939; Boas & Deloria 1941; Schwartz 1979; Williamson 1979; Shaw 1980; Woolford 2008; Corral Esteban 2014).

1.3. Review of the previous literature on the encoding and number of affixes in Lakota

Below is a review of the published literature on the topics of the encoding of third person in Lakota and the maximum number of affixes that a Lakota predicate can include.

Riggs (1852) does not explicitly say whether the third person singular affix exists or not. He simply posits that, with the exception of the third person plural stative marker wičha, the third person is represented by the verb in its simple form (i.e. verbal stem) and the first and second persons with the addition of personal pronouns. In order to account for the absence of the third person singular marker, he argues that, since it is the most common form of expression, the third person of active verbs is never marked through an ‘incorporated pronoun’ (Riggs 1852: 10).

Buechel (1939), with regard to third person pronouns, notes that, although these ‘inseparable pronouns’ (Buechel 1939: 40) are not expressed - with the exception of wičha -, they are actually contained in the verb. Concerning ditransitive constructions, he regards ki as an ‘inseparable preposition’ (Buechel 1939: 42) following the two markers in a ditransitive construction, namely the recipient and the agent. Nothing is mentioned about the theme marker, however.

Boas and Deloria (1941) argue that there is no third ‘person pronoun’ (Boas & Deloria 1941: 76) but do not mention whether it is covertly specified or, whether it does not, in fact, exist.

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13 I use the term ‘patient’ to refer to the non-agent participant in a monotransitive construction in order to distinguish it from the term ‘theme’, the non-agent and non-recipient participant in a ditransitive construction.

14 It must be assumed that they are referring to pronominal affixes, rather than pronouns.
Van Valin (1977) analyzes Lakota affixal person markers as pronominal arguments, relying on their complementary distribution for evidence. He states that, except for the third person plural animate patient, which is crossreferenced through the marker wičha, verbs do not mark the third person overtly; rather, it is represented by a zero form (Van Valin 1977: 12), which does not mean, however, that it does not exist since, according to him, Lakota verbs code all their obligatory arguments either overtly or covertly.

Schwartz (1979) is more concerned with the ordering of pronominal affixes than with the existence of zero affixes in Dakota and, although she does not explicitly indicate whether the third person singular marker exists or not, she does point out that the third person is not represented by an affix (Schwartz 1979: 7). Regarding ditransitive constructions, she mentions in passing that the stative person affixes agree with the recipient, rather than with the theme (Schwartz 1979: 5).

Miner (1979), like Schwartz, focuses on the ordering of the affixes, but points out that the third person has a zero affix (Miner 1979: 36).

Williamson (1979), with respect to the marking of the third person, Williamson mentions that the third person singular pronominal affix is null and that inanimates are never marked (Williamson 1979: 73). Concerning ditransitive constructions, Williamson argues that the verb contains markers for all the arguments, even for the theme (Williamson 1979: 81-82).

Shaw (1980) notes that the third person is always unmarked, with the only exception being the verbal prefix wičha, which codes animate plural objects (Shaw 1980: 10-11).

De Reuse (1983) analyzes third person affixes as zero pronominal affixes and, regarding ditransitive constructions, he argues that there cannot be more than one stative pronominal affix and, therefore, that the marking for the direct object is not possible, which implies that Lakota verbs are restricted to having no more than two affixes (De Reuse 1983: 84-86).
Mithun (1986) claims that Lakota does not have zero affixes, basing her claim on a seemingly widespread correlation between pronominal-argument languages (Jelinek 1984) and pragmatically-based word order.

Rood and Taylor (1996) posit that, except for the third person plural animate (i.e. wičha), there is no affix for third person (Rood & Taylor, 1996: 465) and represent the third person singular participants through a null marker in their chart containing combinations between the two affixes (Rood & Taylor 1996: 466), which appears to imply that the remaining third person markers are covertly specified. As regards ditransitive verbs, they argue that their form changes to show the addition of a third participant, this modification involving the presence of the ‘dative affix’ ki (Rood & Taylor 1996: 471)

The grammar section of the second edition of the Lakȟota Language Consortium dictionary (2011) shows a chart including all the possible combinations of verbal affixes in transitive constructions where the cross-referencing of third person singular participants is indicated by null marker Ø (LLC 2011: 771). Regarding ditransitive constructions, LLC notes that it is ungrammatical to mark the theme on the verb with dative or benefactive verbs (LLC 2011: 785).

2. Discussion concerning argument marking in Lakota

Having reviewed the existing views concerning this issue, I now turn to the first problem concerning the marking of arguments in Lakota, that is, the encoding of third person singular participants.

Following Boas and Deloria (1941: 76), who consider the plural animate object marker wičha a noun meaning ‘person’ rather than a pronoun, I put forward a hypothesis that could offer some interesting insight into the origin of the third person plural marker wičha based on diachronic, rather than on synchronic claims. Although it is not easy to determine its origin, the very fact that an homonymous term (i.e wičhaša)
meaning ‘human’ or ‘man’ exists could reflect a case of grammaticalization by which the noun wičha(sa), through different stages of development, evolved into a syntactic clitic, which is attached to the left edge of many collective verbs cross-referencing a non-specific argument (e.g. wičháčheyá ‘wail’, wičhaháŋ ‘stand’, wičhiyokiphi ‘be happy’, wičhóthi ‘camp’, etc.), and finally became a pronominal affix representing a third person plural animate subject and object marker of the stative series. This would account for its initial position in the verbal complex since incorporated items like this tend to precede pronominal affixes, which were attached earlier.

By contrast, Williamson (1984: 78) appears to consider wičha a clitic and a suppletive form for pi, since these two morphemes, in general, mark third person objects and subjects respectively. However, this does not appear to be entirely true since, while wičha is mostly restricted to third person plural animate objects, pi generally occurs with animate plural persons, independently of grammatical relation. Furthermore, wičha also crossreferences third person plural animate collective subjects in intransitive stative verbs and in some intransitive active verbs.

Later on, Pustet and Rood (2008: 344–345) demonstrate that the marker wičha can also be used non-referentially:

15 The noun wičháša ‘man’ would be then simplified with the final syllable of the noun omitted owing to the complex phonology of the boundary between this element and the verb.

16 Rankin (2006: 542) claims that Proto-Siouan *wúk- ‘man, person’ was incorporated and grammaticalized early, becoming the third person plural marker. According to Koontz (p.c.), wičha could come from wičhaša (Santee Dakota > wičhasta) ‘man’. Heine and Kuteva (2002: 208) also cite a similar example of grammaticalization from Lendu, a language where the lexical word ‘people’ is grammaticalized to a third person plural pronoun.

17 Koontz (p.c.) points out that there is a general tendency in Siouan morphology for wičha-forms to come first since they were attached later than the pronominal affixes. For example, the corresponding form to wičha in most Mississippi Valley Siouan languages is the prefix wa, which is also placed at the left edge.

18 Wičhawášte ‘They (as a group) are good’ (De Reuse 1983: 154); Wičhášiče ‘They (as a group) are bad’ (LLC 2011: 649); Wičhani ‘They (as a group) live’ (LLC 2011: 649).
In this example, *wičha* does not refer to any specific plural referent and consequently it functions as an animate patient dereferentializer (APD) (Pustet & Rood 2008: 344). In this context, it would not be possible to insert a third person plural animate patient co-refering with *wičha* because reference to this patient has been suppressed.

Thus, the hypothetical course of events reflects an evolution whereby a content word develops firstly into a dereferentializing clitic (or prefix), with no overtly specified patient, and finally into a grammatical morpheme indicating the third person plural, which cross-references a plural NP argument that can be both overtly and covertly specified. As already noted, in this last step of the progression, not only does it refer to patients in transitive constructions, but also to intransitive collective agents with most stative verbs and some active verbs.

In summary, this grammatical morpheme *wičha*- developed out of a lexical item or content word with a generalized meaning, creating an important condition for its entry into grammaticalization, and was prefixed to the left side of the verb, further away from the verb root than the inflectional morphemes (i.e. pronominal affixes). What seems obvious is that, regardless of whether *wičha* is now considered a syntactic clitic, a pronominal affix, or an agreement marker, this morpheme occurs at the left edge of the inflectional complex and therefore precedes all the true pronominal affixes, so that it can now be considered a mirror image of the plural number clitic *pi*, which always

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19 *Wa*- is considered a patient dereferentializer in Pustet and Rood (2008: 342) and an indefinite object marker in LLC (2011: 578).

20 Pustet and Rood (2008: 336) regard *pi* as an agent impersonalizer (AGIPS) when it does not refer to a specific animate plural referent. In this use, it seems to have an agent-suppressing function and does not therefore convey the idea of plurality.
follows the verb. More importantly, this assumption could imply that the third person plural was not originally marked overtly.

Consequently, despite the fact that the third person is never marked overtly in Lakota, it seems logical, for reasons of valency requirement, to assume that the pronominal affix corresponding to a third person participant does exist and, consequently, this obligatory argument of a predicate is specified or cross-referenced on the verb. This assumption appears to be borne out when the behaviour of pronominal affixes in examples of control constructions is analyzed.

Firstly, we have some subject control verbs like iyúthA ‘try’, uŋspé ‘learn’, yá ‘go’ or ú ‘come’, which do not require the embedded verb to be inflected for subject and, with which, accordingly, the only marker in the embedded predicate corresponds to object, not the subject:

(4) Išákpe kiŋ ma-Ø-núŋ i-blúthe
    gun the STEM-3SG.STA-steal STEM-1SG.ACT-try
    ‘I tried to steal the gun’

(5) *Išákpe kiŋ ma-Ø-wá-núŋ i-blúthe
    gun the STEM-3SG.STA-1SG.ACT-steal STEM-1SG.ACT-try
    ‘I tried to steal the gun’

(6) Išákpe kiŋ ma-Ø-núŋ i-Ø-yúthe
    gun the STEM-3SG.STA-steal STEM-3SG.ACT-try
    ‘He tried to steal the gun’

(7) Išákpe kiŋ ma-núŋ iyúthe
    gun the STEM-steal try
    ‘He tried to steal the gun’

21 This supports a widespread assumption that the order of morphemes in a language appears to reflect their historical order of grammaticalization, in such a way that the affixes closest to the root are indeed the oldest, and those on the periphery of words can be seen to be more recent additions (Givón 1971; Mithun 2000, among others).
Example (5) is not grammatical because the linked verb includes the pronominal affix agreeing with the subject wa. This implies that there is no embedded subject, and, consequently, there cannot be a zero third person pronominal affix. What is difficult to know is whether the third person singular subject of the main verb iyúthA ‘try’ and, by extension, the third person singular object of the linked verb manúŋ ‘steal’, are coded through a null marker, as in (6), or simply do not exist, as in (7).

Constructions involving object control verbs, such as ší ‘tell, ask’, which show coreference between the matrix object and the linked subject, illustrate the same situation:

(8) Thiyópa kiŋ Ø-yúŋaŋ ma-ya-ší
    door the 3SG.STA-open 1SG.STA-2SG.ACT-ask
    ‘You asked me to open the door’

(9) *Thiyópa kiŋ Ø-bl-úŋaŋ ma-ya-ší
    door the 3ST.STA-1SG.ACT-open 1SG.STA-2SG.ACT-ask
    ‘You asked me to open the door’

(10) Thiyópa kiŋ Ø-yúŋaŋ Ø-wa-ší
    door the 3SG.STA-open 3SG.STA-1SG.ACT-ask
    ‘I asked him to open the door’

(11) Thiyópa kiŋ yúŋaŋ wa-ší
    door the open 1SG.ACT-ask
    ‘I asked him to open the door’

As in (5), example (9) shows that it is not possible to insert a pronominal affix representing the subject on the first verb in this construction. However, it is not possible to ascertain either whether the third person pronominal affixes standing for the objects of ší ‘tell, ask’ and yúŋaŋ ‘open’ are covertly expressed, as in (10), or do not exist, as in (11).
This doubt appears to be resolved when we analyze another type of control construction that involves verbs such as čhiŋ ‘want’, okíhi ‘be able to’, aókiya ‘decide’ or iyúkčáŋ ‘think’, which require the embedded verb to be inflected for the subject (as well as for the object if the verb is transitive):

(12) Šúŋkawakȟáŋ núŋpa opȟé-wičha-wa-thuŋ wa-čhiŋ
    horse two STEM-3PL.STA-1SG.ACT-buy 1SG.ACT-want
    ‘I want to buy two horses’

(13) Šúŋkawakȟáŋ núŋpa (hé) opȟé-wičha-Ø-thuŋ wa-čhiŋ
    horse two that STEM-3PL.STA-3SG.ACT-buy 1SG.ACT-want
    * ‘I want to buy two horses’
    ‘I want him to buy two horses’

(14) Šúŋkawakȟáŋ núŋpa opȟé-wičha-Ø-thuŋ Ø-čhiŋ
    horse two STEM-3PL.STA-3SG.ACT-buy 3SG.ACT-want
    ‘He wants to buy two horses’

(15) *Šúŋkawakȟáŋ núŋpa opȟé-wičha-thuŋ čhiŋ
    horse two STEM-3PL.STA-buy want
    ‘He wants to buy two horses’

Lakota verbs generally have strict valence requirements\(^{22}\) (LLC 2011: 792) and, given that the linked predicate opȟétȟuŋ ‘buy’ must present two argument markers - one encoding the subject and another the object –, it does not seem plausible to think that the third person agent marker is encoded neither in the main predicate čhiŋ ‘want’ nor in the embedded predicate opȟétȟuŋ ‘buy’, and, consequently, it simply does not exist, as is shown in (15). Furthermore, the fact that example (13) cannot be interpreted as ‘I want to buy two horses’ but, rather, it should be interpreted as ‘I want him to buy two horses’ strengthens the argument that the embedded verb opȟétȟuŋ ‘buy’ encodes two

\(^{22}\) The only possibility for modifying the number of arguments is through the addition of various applicative affixes, for example: locative applicative prefixes such as a-, e-, i-, and o- meaning ‘on/at’, the patient impersonizer wa-, or the benefactive infix -kič-. See also the ‘passive’ use of –pi in example (3).
arguments rather than one. Thus, although the third person in Lakota is crossreferenced on the verb through a null marker, it does exist, despite being only covertly-specified, as can be observed in its behaviour in control constructions with no obligatory coreferential participant.

3. Discussion concerning the maximum number of affixes allowed in Lakota

This section will be devoted to the second question, which concerns the number of pronominal affixes permitted. Most of the literature concerning the maximum number of affixes marked on a Lakota verb deals with ditransitive constructions. It seems logical to assume that, if a predicate like k’u ‘give’ requires three core arguments, then its three obligatory arguments should be represented. Furthermore, given the head-marking nature of Lakota, it could be argued that there should be three pronominal affixes, rather than only two, on the verbal complex cross-referencing the three participants, namely agent, recipient, and theme.

It is striking to note, however, that Lakota ditransitive verbs appear to mark only two of their three arguments overtly, namely those coding the semantic roles of agent and recipient, the theme remaining (at least overtly) unmarked:

(16) Wičhaša kiŋ lé hokšila kiŋ hená šúŋka way wičha-Ø-k´u.
nan the this boy the those dog a 3PL.STA-3SG.ACT-give
‘This man gave those boys a dog’

(17) Wičhaša kiŋ lé hokšila kiŋ hená šúŋka núŋpa wičha-Ø-k´u.
nan the this boy the those dog two 3PL.STA-3SG.ACT-give
‘This man gave those boys two dogs’

(18) Wičhaša kiŋ lé hokšila kiŋ šúŋka núŋpa Ø-Ø-k´u.
nan the this boy the dog two 3SG.STA-3SG.ACT-give
‘This man gave the boy two dogs’
In examples (16) and (17) the prefix wičha, which mostly encodes third person plural animate objects, is used to code the same argument, namely the NP hokšila kiŋhená ‘those boys’, which functions as the recipient of the predicate. In both examples, the theme, regardless of its number, is left unmarked. This fact could be accounted for by claiming that that the theme is third person singular in (16) and that it is represented simultaneously with the recipient by wičha in (17). However, as can be seen in (18), despite the fact that there is no third person plural recipient, which would be represented by the pronominal marker wičha, the theme is not marked either. This might lead us to conclude that the ditransitive verb only encodes two of its three obligatory complements, resulting in a syntax-semantics mismatch since, although the verb requires three obligatory participants, only those playing the semantic role of agent and recipient are marked, unlike the theme semantic role, which is apparently not crossreferenced by the verb.

In order to account for the apparent absence of marking for the theme argument on ditransitive verbs in Lakota and subsequently, to solve a hypothetical case of syntax-semantics mismatch, it is essential to point out that, according to Van Valin (2001:69), Lakota shows secundative alignment (Siewierska 1996; Haspelmath 2005; Bickel and Nichols 2009, among others), since the recipient is considered the primary object and is coded in the same way as the monotransitive patient, but differently from the ditransitive theme. This type of alignment pattern is triggered by the presence of the affix ki23 ‘to’, which behaves as a dative applicative affix,24 since it adds a new participant to the argument structure of the ditransitive verb, namely the recipient, and suppresses the overt reference to another participant, the theme. This assumption is supported by the fact that all ditransitive verbs in Lakota appear to have the presence of the marker ki25 as their trademark feature:

23 Koontz (p.c.) provides iki- as the probable underlying form of this morpheme.
24 This affix appears in LLC (2011: 308) as a dative marker.
25 Buechel (1939: 222) also provides a list of verbs including the affix ki (e.g. k ’u ‘give’, kipázo ‘show’, okílota ‘borrow’, ok ’u ‘lend’, etc.), which he describes as an inseparable preposition.
(19) **Šuŋkawakȟaŋ kiŋ hená Ø-wa-ki-pazo**
    horse the those 3SG.STA-1SG.ACT-DAT-show
    ‘I showed him/her those horses’

(20) **Šuŋkawakȟaŋ kiŋ hená opȟe-Ø-wa-kiča-thúŋ**
    horse the those STEM-3SG.STA-1SG.ACT-DAT-buy
    ‘I bought him/her those horses’

(21) **Šuŋkawakȟaŋ kiŋ hená Ø-wa-k’u**\(^{26}\)
    horse the those 3SG.STA-1SG.ACT-DAT;give
    ‘I gave him/her those horses’

(22) **Šuŋkawakȟaŋ kiŋ hená Ø-wa-kahi**\(^{27}\)
    horse the those 3SG.STA-1SG.ACT-DAT;bring
    ‘I brought him/her those horses’

(23) **Šuŋkawakȟaŋ kiŋ hená Ø-wa-kai**\(^{28}\)
    horse the those 3SG.STA-1SG.ACT-DAT;take
    ‘I took him/her those horses’

(24) **Šuŋkawakȟaŋ kiŋ hená iyáya-Ø-wa-khi**\(^{29}\) -ye
    horse the those go-3SG.STA-1SG.ACT-DAT-CAUS
    ‘I sent him/her those horses’

\(^{26}\) Although I claim that there might really be a dative from underlying ‘u, I have not been able to attest the original form of the verb to which the affix ki is attached in the course of the historical development of this language. Koontz (p.c.) points out that k’u is essentially the proto-Siouan form, and regular cognates of it are everywhere (e.g. Omaha-Ponca has ‘i ‘give’ (k’ > ‘ and u > i) or Mandan has ku ‘give’, among others). Nevertheless, the lack of traces of the underlying stem may be due to the fact that the verb k’u is one of the few that is naturally ditransitive in Siouan languages.

\(^{27}\) This verb stem consists of ki plus ahí ‘bring something here’.

\(^{28}\) This verb stem consists of ki plus aí ‘take something there’.

\(^{29}\) The dative marker ki changes to an aspirated khi before the causative -ya. There are two different causative suffixes in Lakota, namely khiyA ‘to intentionally cause’ and yA ‘to unintentionally cause’ (Boas & Deloria 1941: 74).
It seems that when a monotransitive verb becomes ditransitive, it marks the recipient rather than the theme. This process appears to be triggered by the addition of the affix *ki*, which increases the valence of the verb from two to three and adds a new primary object, namely the recipient, changing the function of the theme object to secondary object, which is now left apparently unmarked.

The same situation occurs with the benefactive marker *kiči* ‘for/on behalf of’, whose presence signals a new participant, now the beneficiary of the action. This beneficiary becomes the primary object and, again, the theme appears to lie unmarked. For this reason, it seems logical to consider the marker *kiči* a benefactive applicative affix:

(26)  Šúŋkawakȟáŋ kiŋ hená mi-Ø-či³¹-čagli³²=pi
  horse the those 1SG.STA.3.ACT-BEN-bring.back=PL
  ‘They brought those horses back for me’

In suppressing the reference to the theme participant by removing its corresponding affix, these applicative affixes *ki* and *kiči* seem to behave as valency-decreasing derivational affixes. However, as is clear from the above examples, these affixes do not block the presence of the theme participant in the construction and, consequently, its referential status is still intact. Furthermore, the verb that these affixes are attached to continues to require three participants semantically, which implies that these three obligatory arguments should, in order to avoid a syntax-semantics mismatch,
also be syntactically marked by pronominal affixes on the verb. Accordingly, it seems plausible to argue that these affixes do not reduce the number of arguments and that the pronominal affix corresponding to the theme participant in a ditransitive construction has not been removed and, consequently, its presence should be represented through a zero marker.

This assumption is supported by the fact that it is possible to find verbs (e.g. *wak’u* ‘give things to somebody’, *wakipazo* ‘show things to somebody’, *wakičamna* ‘earn things or income for somebody’, *wakičičažužu* ‘pay for things for somebody’, *wakičila* ‘ask for things on behalf of somebody’) where the inanimate patient dereferentializer (IPD) *wa* and the applicative affix occur simultaneously:

(27) *Tóna waȟpáníča kíŋ hená wa-wičha-Ø-k’u*

whichever.ones poor the those IPD-3PL.STA-3SG.ACT-DAT;give

‘He gave things to those who were poor’ (LLC 2011: 609)

(28) *Óhiníniyáŋ thiwáhe átaya wa-wičha-Ø-kíči-čaže*

always family whole IPD-3PL.STA-1SG.ACT-BEN-make

‘He always made things for the whole family’

The above examples contain no theme participants, since they are excluded by the presence of the patient dereferentializing marker *wa*, and consequently, not by the applicative affixes *ki* and *kíči*:

(29) *Tóna waȟpáníča kíŋ hená mázaska*

whichever.pl poor the those money

*wa-wičha-Ø-k’u*

IPD-3PL.STA-3SG.ACT-DAT;give

‘He gave money to those who were poor’ (LLC 2011: 609)

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33 The verbal stem of this transitive verb is *káǧA* ‘make’.
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(30)  *Ôhiŋniyaŋ thiwáhe átaya wóčhekiye  wa-wiĉha-Ø-kiĉi-çaĝe
always family whole prayers IPD-3PL_STA-3SG.ACT-BEN-make
‘He always made prayers for the whole family’

The presence of specific themes like mázaska ‘money’ or wóčhekiye ‘prayers’ in (29) and (30) respectively is excluded by the presence of the patient dereferentializing prefix wa. The prefix wa34 itself crossreferences the theme participant by representing an abstract or generalized theme, thus blocking the presence of a more specific theme participant in the sentence. Nevertheless, this participant continues to be required semantically by the predicate and, consequently, the existence of a theme undergoing some kind of action (e.g, ‘give something’, ‘buy something’, ‘sell something’, etc.) carried out by an agent to a recipient or beneficiary is inherent to the meaning of the predicate.

Before the lack of a more solid test providing more conclusive evidence, it would seem logical to assume that, if this language marks the presence of a generalized participant through a marker – in this case the patient referentializing marker wa – it should also mark, either overtly or covertly, the presence of a more specific participant. I therefore conclude from this that the theme participant has been somehow demoted owing to the addition of the recipient participant and is now always crossreferenced through a zero marker, implying that the affix for the theme is still present, although covertly marked, and, consequently, its presence should be represented in all ditransitive constructions.

A concept that might account for the preference in Lakota for the recipient over the theme in terms of overt marking in ditransitive constructions is that of prominence (Haspelmath 2007; Malchukov, Haspelmath & Comrie 2010). Prominence is a complex principle and is therefore commonly analyzed in terms of a set of independent domains,

34 According to Pustet and Rood (2008: 342), “the wa-construction might be interpreted in two ways: wa-either eliminates an argument slot, this time the transitive patient slot, or fills it. In the former case, detransitivization takes place, and the construction could be analyzed as an antipassive; in the latter case, a translation like ‘non-specific patient’, ‘things’, ‘stuff’ would be appropriate. In the absence of additional structural clues supporting one of these interpretations, it is hard to decide which one is more adequate”.

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such as animacy, referentiality, person and anaphoricity. It is generally assumed that the category of ‘recipient’ is cross-linguistically more prominent than that of ‘theme’ meaning that, in natural discourse, the recipient is likely to be human and animate, definite, and first or second person. Conversely, the theme is generally non-human and inanimate, indefinite, and almost invariably third person (normally expressed, when overt, by means of an NP). Thus, this prominence of the recipient over the theme, together with the fact that the presence of a theme is something inherent to ditransitive verbs (as is that of a patient to monotransitive verbs), unlike a recipient, which is only specific to ditransitive constructions\footnote{Following Primus (1999), I will use the term ‘ditransitive’ in purely semantic terms to refer to a three-argument construction that consists of a (ditransitive) verb, an agent argument, a recipient-like argument, and a theme argument. Accordingly, I regard benefactive and causative constructions as other different types of three-place constructions.}, appears to imply that the overt marking of the argument playing the theme semantic role is more redundant than that of the recipient.

Furthermore, the inclusion of the pronominal marker for the theme would only add more ambiguity\footnote{Although it is true that there are many examples of ambiguity in monotransitive constructions as well. For example, the form \textit{slolniyapi} may be interpreted as a) ‘They know you (sing.)’, b) ‘They know you (pl.)’, or c) ‘He/she/it knows you (pl.)’.} to the expression:

(31) \textit{Wičha-ma-ya-k´u}

\begin{align*}
&3\text{PL.STA}\cdot1\text{SG.STA}\cdot2\text{SG.ACT}-\text{give} \\
\text{‘You give them to me.’ or ‘You give me to them.’}
\end{align*}

A hypothetical form like \textit{wičha-ma-ya-k´u} could be understood as either ‘you give them to me’ or ‘you give me to them’ and consequently, for reasons of economy and clarity, it appears that marking the theme overtly is unnecessary\footnote{A correct way of saying ‘You give them to me’ and ‘You give me to them’ would be \textit{Iyepi / Hená ma-ya-k´u} and \textit{Miye wičha-ya-k´u} respectively.}.

Some counterexamples to this assumption, however, can be found in literature. For example, Williamson (1989) argues that in Lakota there are markers for all the
arguments on the verb, including the theme, and that both the benefactive marker kiči and the dative marker ki add an argument to the core argument structure of the verb:

(32) Šuŋka kiŋ hená wičha-ma-yeci-yužaža he?
dog the those 3PL.STA-1SG.STA-2SG.ACT-BEN-wash Q
‘Did you wash those dogs for me?’ (Williamson 1989: 81)

(33) Wichaša eya, Šuŋkala kiŋi wičha-ma-ki-pazo=pi
men some puppy the 3PL.STA-1SG.STA-DAT-show=PL
‘Some men showed the puppies to me’ (Williamson 1989: 81)

These examples never occur in texts and, according to my Lakota native consultants, are unnatural, so they could be just the result of a wrong translation of an elicited English sentence.

Van Valin (1977: 12) also cites an example of a ditransitive verb cross-referencing three animate participants by means of three overt markers:

(34) Ni-wičha-wa-k’u
2SG.STA-3PL.STA-1SG.ACT-give
‘I give you to them’

This example presents a very interesting situation since the verb has all its arguments overtly specified and wičha, unlike what is expected, is not the first affix on the verbal complex. It is also very striking to notice that, when the second person singular functions as theme in a ditransitive construction, the portmanteau form -čhi-is not used. It could be assumed that this portmanteau form only occurs when a first person singular form agent acts on a second person singular or plural patient in a monotransitive construction. In order to account for this example, my native consultants propose two different interpretations, both of which involve the use of contractions, which is, in fact, very characteristic of Lakota:
(35)  a. Niye wičha-Ø-wa-k’u
    you 3PL.STA-2SG.STA-1SG.ACT-give
    ‘I give you to them’ (lit. ‘You are the one that I give them’)

    b. Niye čha wičha-Ø-wa-k’u
       you COMP 3PL.STA-2SG.STA-1SG.ACT-give
       ‘I give you to them’ (lit. ‘It is you that I give them’)

    On the one hand, the example (34) could be a shortened form of Niye wičha-wa-κ’u (35a), resulting in a more emphatic structure where the argument, which functions as theme, acquires more prominence making it similar to the English construction ‘You are the one that I give them’. On the other hand, it could also be a shortened form of Niye čha wičha-wa-k’u (35b), which would be equivalent to an English it-cleft construction38 ‘It is you that I give them’, leading again to an emphasis on the theme argument. In summary, both alternatives seem to confirm two facts: firstly, that Lakota ditransitive verbs overtly mark only their agent and recipient, but not their theme; and, secondly, that situations not conforming to the canonical or unmarked ditransitive association, namely those involving an inanimate recipient and/or an animate first or second person theme, need to resort to an emphatic construction, which highlights the deviant or marked argument.

    Consequently, the only way in which the theme can be overtly marked overtly is by means of a coreferential separate personal pronoun (37) or a demonstrative (38) (or crossreferenced through the prefix wa when it is generalized), which turns out to be very common in order to avoid ambiguity, for example when there is no NP argument to help to identify the reference of the participant (see example 13):

38 In Lakota it-cleft constructions the presence of the verb é ‘be a certain one’ preceding the complementizer čha is obligatory when the clefted element is definite, unless it appears in the form of a personal pronoun (Rood & Taylor 1996: 456).

a) Hokšíla čha šúŋkawakȟáŋ kiŋ iwičhačupi ‘It was some boys who took the horses’.

b) Hokšíla kiŋ épi čha šúŋkawakȟáŋ kiŋ iwičhačupi ‘It was the boys who took the horses’.
(36)  \textit{Wičha-Ø-Ø-k’u} \\
3PL.STA-1/2/3SG.STA-3SG.ACT-give \\
‘He gives me/you/him/her to them’

(37)  \textit{Niye wičha-Ø-Ø-k’u} \\
you 3PL.STA-2SG.STA-3SG.ACT-give \\
‘He gives you to them’

(38)  \textit{Hé wičha-Ø-Ø-k’u} \\
that 3PL.STA-3SG.STA-3SG.ACT-give \\
‘He gives that to them’

The only constructions with more than two pronominal affixes are those involving the presence of causative\textsuperscript{39} verbs. For example, Van Valin and Foley (1980: 23–24) discuss a verbal form such as \textit{k’ukhiyA} ‘make somebody give something to somebody else’, which requires four semantic roles, namely the causer, the causee/agent\textsuperscript{40}, the recipient and the theme. Despite having four arguments, the construction can only contain up to three overt markers, since the theme is never marked overtly in ditransitive constructions.

My native-speaker consultants recognize the grammaticality of elicited sentences such as the following, which contains three overtly specified markers:

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\textsuperscript{39} Another construction where we could expect more than two pronominal affixes would be one involving transitive verbs with affixed applicatives (e.g. \textit{aóphethuŋ} ‘buy something from somebody’, \textit{acháštȟuŋ} ‘name somebody after somebody else’, \textit{ičhékiya} ‘pray to somebody for something/somebody else’, or \textit{ognáke} ‘put something/somebody into something’). I have, however, not been able to find an example of these verbs including more than two affixes. This may be due to the fact that either they behave like ditransitive verbs in that they only mark the agent and recipient (e.g. \textit{šúŋkawakȟáŋ núŋpa aóphemayathuŋ} ‘You bought two horses from me’) or the postpositional object is normally a third person inanimate participant, which is never marked (e.g. \textit{šúŋkawakȟáŋ kíŋ héná ošúŋkoyuspe owičhawágnake} ‘I put the horses into the corral / corrals’).

\textsuperscript{40} The agent is never marked in the main verb (e.g. \textit{k’u} ‘give’) of a causative construction.
(39)  \textit{Wačhékiya wičháša waŋ čhažé  Ø-ni-č’u-uŋ-Ø-khiya=pi}

 pray man a name 3.SG.STA-2SG.STA-GIVE-1PL.ACT-3SG.STA-CAUS=PL

 ‘We let a priest give you (sing.) a name’

 Nevertheless, they prefer an alternative paraphrase with two clauses like:

(40)  \textit{Wačhékiya wičháša waŋ čhažé  Ø-ni-Ø-k’u}

 pray man a name 3SG.STA-2SG.STA-3SG.ACT-give

 wičá-uŋ-Ø-la=pi

 STEM-1PL.ACT-3SG.STA-accept=PL

 ‘We agree to the priest’s giving you a name.’ (lit. ‘We agree to it that the priest
gives you (sing.) a name’)

 This appears to imply that constructions involving more than two pronominal
affixes do not sound very natural in Lakota.

 Furthermore, although these constructions are grammatically correct, they cannot
be compared to ditransitive constructions, since they appear to reflect instances of
complex constructions involving the presence of more than one predicate:

(41)  \textit{Śúŋkawakhán kįį lė wičha-Ø-k’u-ma-ya-khiye}

 horse the this 3PL.STA-3SG.STA-give-1SG.STA-2SG.ACT-CAUS

 ‘You (sing.) let me give them this horse’

(42)  \textit{Wa-úŋσpe-wičha-wa-khiye-ma-ya-khiye}

 IPD-learn-3PL.STA-1SG.ACT-CAUS-3SG.ACT-1SG.STA-CAUS

 ‘You made me teach them’ (LLC 2011:301)

 Thus, what amounts to one phonological word consists of a whole series of
serially associated morphological words, all of them more or less inflected. In (41) the
ditransitive verb \textit{k’u} ‘give’ requires three semantic participants, although only one, the
recipient wičha, is overtly marked. In addition to the main verb k’u, there is a causative verb khiyA ‘make/have somebody do something’ accompanied by two other overt markers, ma and ya standing for the causee and causer respectively, which implies that this verb has its valency requirements satisfied. The sentence in (39) is an even clearer example of a complex construction than the former since, although there are four different overt markers, this is not an exception to the assumption that Lakota verbs can only have two overt markers. Firstly, two of them – wa and ma – are co-referential, and secondly, there are three verbs: the main verb úŋspe ‘learn’, accompanied by the patient dereferentializing prefix wa, and the causative verb khiyA ‘make/have somebody do something’, which appears twice together with the corresponding affixes crossreferencing the causee and the causer: on the one hand, wičha and wa, and, on the other hand, ma and ya.

4. Conclusion

This paper is intended as a solution to the problem of argument marking in Lakota, which, in turn, influences another problem, namely that of determining the maximum number of arguments that can legitimately be cross-referenced in this language. After reviewing all the existing literature on these issues, I have adopted Van Valin’s assumption that all obligatory arguments are either overtly or covertly marked by pronominal affixes on all Lakota verbs, regardless of their transitivity. Furthermore, in order to account for the special behaviour of Lakota ditransitive verbs, where the theme is apparently left unmarked, I would like to highlight the fact that ditransitive constructions show secundative alignment. The marker ki is a dative applicative affix that alters the argument structure of the predicate by adding a new participant, that is the recipient, which becomes the primary object, and changes the function of the theme participant to secondary object. This process means that the recipient is now considered the primary object, so that it is coded in the same way as the monotransitive patient, and both the recipient and patient are, therefore, marked differently from the theme. Likewise, despite the absence of overt cross-referencing for the theme in ditransitive constructions, its existence is evident given that it can still occur in the form of an NP, except when the patient dereferentializing prefix wa is present, demonstrating that it is
not only semantically required by the predicate, but also syntactically necessary. For this reason, I have assumed that it is still crossreferenced by the verb, although it is now encoded by a zero marker, mainly to avoid the ambiguity caused by the addition of a new affix representing the primary object. This assumption would preclude a syntax-semantics mismatch, since an obligatory argument of the predicate would continue to be syntactically coded. Finally, it seems clear that only two participants can be marked overtly in Lakota and the only examples containing a higher number of pronominal affixes involve causative constructions, which must be analyzed as complex constructions including a series of verbs.

References


