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Layers and operators in Lakota[1]

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Abstract Categories covering the expression of grammatical information such as aspect, negation, tense, mood, modality, etc., are crucial to the study of language universals. In this study, I will present an analysis of the syntax and semantics of these grammatical categories in Lakota within the Role and Reference Grammar framework (hereafter RRG) (Van Valin 1993, 2005; Van Valin and LaPolla 1997), a functional approach in which elements with a purely grammatical function are treated as ´operators`. Many languages mark Aspect-Tense-Mood/Modality information (henceforth ATM) either morphologically or syntactically. Unlike most Native American languages, which exhibit an extremely complex verbal morphological system indicating this grammatical information, Lakota, a Siouan language with a mildly synthetic / partially agglutinative morphology, expresses information relating to ATM through enclitics, auxiliary verbs and adverbs, rather than by coding it through verbal affixes.

1. Introduction

The organisation of this paper is as follows: after a brief account of the most relevant morpho-syntactic features exhibited by Lakota, Section 2 attempts to shed light on the distinction between lexical words, enclitics and affixes through evidence obtained in the study of this language. Section 3 introduces the notion of ´operator` and explores the ATM system in Lakota using RRG´s theory of operator system. After a description of each grammatical category, an analysis of the linear order exhibited by the Lakota operators with respect to the nucleus of the clause are analysed in Section 4, showing that this ordering reflects the scope relations between the grammatical categories conveyed by these operators. Finally, a summary of the most relevant findings obtained in this research concludes this paper.

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1.1. The Lakota language

Lakota is a Siouan language spoken in the Great Plains area of the United States of America (primarily in the states of North and South Dakota) and Canada by about 6,000 speakers. Despite being generally considered as a separate language, Lakota is mutually intelligible to speakers of two other closely-related languages, namely Dakota and Nakota.

Due to the complex morpho-syntactic features exhibited by Lakota, it would seem appropriate to include a brief account of their basic morphological and morpho-syntactic aspects, such as word order, argument type, marking, branching, and alignment.

According to conventional morphological typology, Lakota is considered a mildly synthetic, partially agglutinative language, since it exhibits a relatively high morpheme-to-word ratio, presents a fairly regular morphology and verb forms that tend to include morphemes, the function of which is to stand for the different arguments in a clause, for example:

(1) Owóžu-ta waŋ-wičha-bl[2]-áke[3]
field-LOC STEM-3PL.STA-1SG.ACT-see
'I saw them in the field.'

With respect to word order, although this seems to be pragmatically conditioned, Lakota shows a tendency towards the order Subject + Object + Verb when third person participants are overtly expressed in the clause. As regards the parameter referred to as argument-type, ascertaining whether Lakota is a pronominal-argument or a lexical-argument language is very

[2] The first and second person singular forms of the verb *waŋyáŋkA* 'see' exhibit a loss of nasalization in the last syllable: *waŋbláke* 'I see' and *waŋláke* 'you (SG) see'.

[3] This study is based on the material found in two primary sources: 1) the grammars, dictionaries, and texts listed in the references (after each example, its source will be noted), and 2) the examples provided by my anonymous native consultants. I wish to express my gratitude to these Lakota native speakers for kindly sharing their knowledge of their language with me. Needless to say, any mistakes are my own. Regarding the orthography, all the Lakota words and examples in this article are written using the Lakota Language Consortium (henceforth LLC)´s spelling system, namely the version described in LLC (2011: 747-748).

difficult, owing to the fact that, unlike first and second person participants, third person referents are not realised syntactically through an overt marker. It is, therefore, not easy to determine if third person markers are zero and, consequently, the true arguments of the predicates, with their correferential lexical nominal phrases being purely optional elements, or if they simply do not exist at all. This would lead us to consider the overt lexical nominals as the true arguments of the predicate. Lakota is, likewise, a head-marking language because all grammatical relations are coded within the verb, which is the head of the clause, rather than in the nominal phrases, although the latter may also occasionally mark a locative or instrumental adpositional case. As regards branching, Lakota is an example of a left-branching language owing to the fact that it tends to place dependents before heads, the only exception being the fact that adjectives follow nouns. Finally, Lakota can be classified as an active–stative language or a split intransitive language, since the only argument of an intransitive clause is sometimes marked in the same way as an agent of a transitive verb and sometimes in the same way as a patient.

2. Lexical items, enclitics, and affixes

Enclitics can be defined as morphemes expressing grammatical information and are syntactically independent but phonologically dependent on their host. Yet, enclitics in Lakota show a remarkable heterogeneity with respect to their morphological, phonological and lexical characteristics; it is therefore not easy to decide if postverbal elements are affixes, enclitics or lexical items, more specifically the auxiliary verbs. Firstly, most presumed enclitics in Lakota, like *hÁŋ, pi, ktA*, or *šni*, are very commonly written together with the preceding word, thus blurring the distinction between enclitic proper and suffix. Secondly, other elements that are normally considered enclitics, such as *séčA, kéyA, láȟčA, huwó, sél, héči, yeló, kští, ní, škhá* or *tkhá*, as well as having syntactic independence, also show prosodic independence and, consequently, have their own stress. Finally, some other elements commonly referred to as enclitics, which appear in sentence-final position, such as *séča, načhéčA, héčhA, iyéčhečA, kéyA, s´eléčheča/s´eléča*, or *škhé*, are formally identical and semantially related to stative verbs, which leads us to think of them more as auxiliary verbs. To summarize, this confusion could be better explained in terms of grammaticalization (Klavans 1995), a process which means that a lexically independent item in a specific context loses the properties of a fully independent word over time and acquires the properties of a morphological morpheme. At any intermediate stage of this evolutionary process, the element in question can be considered as a clitic which,

depending on its degree of grammaticalization, may resemble either a lexical word or a morphological affix, or even share a number of different characteristics with both of them.

3. Operators in Lakota

The existence of nine kinds of operator is recognized within RRG, namely aspect, negation (including nuclear negation and core/internal negation), directionals, event quantification, root modality, status (including the domain realis vs irrealis, external negation, and epistemic modality), tense, evidentials, and illocutionary force. Taking the study of Lakota enclitics made by De Reuse (1982) and Rood and Taylor (1996), an analysis of the different operators in this language is carried out below, category by category, in an order already determined by the result, namely from a relatively narrow scope to a relatively wide scope.

3.1. Aspect

Lakota makes a distinction between the two major aspectual categories, that is imperfective and perfective, by lexical, rather than morphological means. Thus, on the one hand, the presence of adverbs like *tȟaŋníš* 'already', *eháŋtaŋ* 'already', *náka* 'just' or *léčheya/lečhála* 'just now' marks the perfective aspect:

(2) Náka wí mahél i-yá-ye[4]
just sun inside arrive.there-3[5]SG.ACT.leave.from.here-REDUP
'The sun has just set.'

[4] According to LLC (2011: 799), this verb is compounded by the stems *í* 'have arrived there' and *yÁ* 'be on the way from here', which presents reduplication.

[5] Abbreviations used in the glosses of the Lakota examples and discussion: 1 - first person, 2 – second person, 3 – third person; ACT – active series, ASP – aspect ; CF – contrary-to-fact or counterfactual epistemic modality ; CLM – complementizer ; CONT – continuous aspect ; DAT – dative ; DECL – declarative illocutionary force ; DEIC – deictic ; DIR – directional ; E.MOD – epistemic modality IMP – imperative illocutionary force ; EQ – Event Quantification ; EVID – evidentiality ; IF – illocutionary force ; INT – interrogative illocutionary force ; LOC – locative ; MOD – deontic modality ; NEG – negation ; OBL – obligation ; PL – plural ; POT – potential mood ; REDUP – reduplication ; REL – relative pronoun ; SG – singular ; STA – stative series ; STAT – status ; TNS – tense ; VOL – volition.

Other types of aspect such as inceptive / ingressive[6], resumptive, completive or continuative, are also realised by means of adverbs, namely *tȟoká* 'for the first time', *átaya* 'completely', *taŋyéla* 'completely', *k´oyéla* 'completely', *naháŋȟčiŋ* 'still', or *ečhéna* 'continuously':

(3) K´oyéla wówapi kiŋ Ø-Ø-yuȟléče-če
completely letter the 3SG.ACT-3SG.STA-tear-REDUP
'He tore up the letter.'

On the other hand, there are other aspectual distinctions, such as the continuous, conative imperfect, continuative, egressive and terminative/cessative aspect, which are expressed through periphrastic constructions involving the presence of auxiliary verbs like *iyúthA* 'try', *khuwá* 'continue, keep on', *ayÁ* 'become gradually', *enákiyA* 'stop, quit', and *yuštáŋ* 'finish':

(4) Psíl wa-khuwá
jumping 1SG.ACT-keep
'I keep jumping.'

(5) Itówapi o-Ø-wá mi-glúštaŋ[7]
picture STEM-3SG.STA-write 1SG.ACT-finish
'I finished painting my picture.'

[6] Inceptive or ingressive aspect can also be expressed by means of the auxiliary verb *iyáyA*'go':

E.g. Íya-Ø-š´a i-yá-ye
STEM-3SG.ACT-shout arrive.there-3SG.ACT.leave.from.here-REDUP
'She started shouting.'

[7] The verb *gluštáŋ* derives from the verb *yuštáŋ* 'finish'. It presents the possessive prefix *ki-*, which merges with the following *y-* into *gl-*.

An interesting example of grammaticalization occurs in the expression in Lakota of continuous aspect[8]. In this case, the enclitic *hÁŋ* derives from a specific postural verb like 'stand'. *HÁŋ*, which often occurs in the ablauted form *hé* and *híŋ*, has always been used as a stative verb with inanimate subjects, especially with objects whose base is narrow when compared with their height, such as trees, posts, some houses, etc.:

(6) Čháŋthipi mitȟawa kiŋ pahá akáŋl Ø-hé
wood-house my the hill on 3SG.STA[9]-stand
'My log house stands on a hill.' (LLC 2011: 146)

More recently it has been grammaticalized, becoming an enclitic marking duration or continuation of action (similar to the English suffix '-ing'), which may also be used with active verbs as well as with both animate and inanimate subjects:

(7) H(e)-éčhu-Ø-uŋ-he
DEIC-STEM-3SG.STA-do-CONT
'He is doing that.' (lit. 'He stands doing that.')

In this example the active verb *éčhuŋ* 'do' is modified by the enclitic *hÁŋ* conveying the notion of continuative aspect suggestive of an action currently in progress. This evidence, then, confirms the strong tendency for progressives to derive from locative expressions as a cross-

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[8] Lakota can also express continuous aspect through lexical means, that is, through the verbs *yaŋká* 'sit' and *uŋ* 'be, exist, remain':

E.g. a) Čhéya-y-aŋké
cry-3SG.ACT-sit
'She was crying.' (Boas and Deloria 1941: 104)
b) A-Ø-phé-wa-úŋ
STEM-3SG.STA-wait.for-1SG.ACT-be
'I am waiting for it.' (Buechel 1939: 282)

As we can see, the embedded verb cannot be inflected for the subject.

[9] Lakota has two different series of pronominal affixes: the active pronominal series and the stative pronominal series, corresponding roughly to the syntactic functions of subject and object (Corral Esteban 2014).

linguistic tendency (other lexical sources being motion verbs or auxiliary verbs meaning 'continue', 'hold' or 'keep on doing something (Heine and Kuteva 2002: 157-158 & 185-186)).

Finally, there is an enclitic *la* 'really, do so' that is used with both nouns and verbs to indicate affection or sympathy, hence it could be considered as an instance of intensive aspect:

(8) Míš-eyá wa-škáte-la kte!
me-too 1SG.ACT-play-really will
'I do so want to play it too!' (Rood and Taylor 1996: 473)

3.2. Negation

Negation is represented in Lakota by the enclitic *šni* and, like English, it can modify the nucleus, the core or the whole clause, leading then to three types of negation: nuclear, core (also narrow-scope or internal negation), and clausal negation (also wide-scope or external negation). The fact that these three types of negation are expressed using the same form, namely *šni,* makes it difficult to differentiate between them:

(9) Čhaŋté-ma-wášte šni
heart-1SG.STA-good not
'I am unhappy'. (lit. 'I not happy.')

(10) Wówapi bl-awá šni éyaš wóthaŋiŋ wówapi čha bl-awá
book 1SG.ACT-read not CLM news book REL 1SG.ACT-read
'I don´t read a book but a newspaper.' (lit. 'I don´t read a book, but it is a newspaper that I read.')

(11) Ȟtálehaŋ othúŋwahe-ta blé[10] šni éyaš wakpá kiŋ él o-wa-núŋwe
yesterday town-LOC 1SG.ACT.go not CLM river the in LOC-1SG.ACT-swim
'Yesterday I didn´t go to town but I was swimming in a river.' (lit. 'Yesterday I

[10] This is the first person singular form of the verb *yÁ* 'go away from here'.

didn´t go to town but I swam in the river.')

(12) Oště-Ø-wa-gle šni, a-Ø-ma-pȟé
STEM-3SG.STA-1SG.ACT-call.names not STEM-3SG.ACT-1SG.STA-hit
'I didn´t call him names, he hit me.'

As can be observed in (9), in Lakota, the enclitic *šni* affects only the basic meaning of the predicate *čhaŋtéwašte* 'happy', not the participant 'I' or the clause as a whole, and is thus an example of nuclear negation[11] where the enclitic gives the predicate a negative meaning. However, as we can see in (10) it is possible to negate one specific argument of the core: in this sentence, rather than 'I' or 'read', the enclitic *šni* negates the core argument *wówapi* 'book', hence it must be considered an instance of core negation. Example (11) also represents an instance of core negation since it affects the whole core, that is the argument-adjunct *otȟúŋwahe-ta* and the predicate *yÁ* 'go away from here', but not the optional peripheral adjunct (i.e. non-argument) *ȟtálehaŋ* 'yesterday', which is outside the core. Finally, in (12) we can see that the enclitic *šni* modifies the whole proposition, thereby constituting an example of clausal negation.

3.3. Directionals

Directionals express the directional orientation of the action itself or the movement of one of the participants in the action. Lakota realises this grammatical category mainly through the use of free words functioning as both adverbs and postpositions, such as *tȟaŋkál* ´outside`, *mahél* ´inside`, *waŋkáta* ´up`, *khúta* ´down`, *ektá* ´to, at, in`, etc. Dependent on their function, RRG is able to establish a distinction between nuclear directionals (13), that is, those directionals that modify the orientation of the action or the event itself without making reference to the

[11] Another example of a construction involving nuclear negation could be one containing the enclitic kA 'rather, somewhat, kind of` which', which, according to Rood and Taylor (1996: 474), attenuates the verbal meaning:
Eg. Hé Ø-wašté-ke (ye)ló
DEIC3SG.STA-good-rather DECL
'He certainly is a nice guy!' (lit. 'He is certainly not a nice person.')

participants, and core directionals (14), namely those directionals that express the orientation or motion of the participants with reference to each other:

(13) Thimá i-blá-ble
inside arrive.there-1SG.ACT.leave.from.here-REDUP
'I went in.'

(14) Mas´óphiye kiŋ thimá i-blá-ble[12]
shop the inside arrive.there-1SG.ACT.leave.from.here-REDUP
'I went into the shop.'

In Lakota, in addition to this method, there is also a set of prefixes[13] which are attached to the left edge of the verb complex, whose basic meaning is instrumental (e.g. *na-* 'with the foot', *pa-* 'with the hands', etc.) or locative (e.g. *a-* 'on' or *o-* 'in', *e-* 'towards', etc.):

(15) Hél čháŋ é-tȟo-Ø-kšu-pi
there wood LOC-STEM-3.ACT-haul-PL
'They hauled wood there.'

The use of these affixes is not very widespread nowadays and it is perhaps indicative of an ancient synthetic way of expressing locatives that is gradually falling into disuse in favour of a more analytical way of using postpositions or adverbs.

3.4. Event quantification

[12] This is the first person singular form of the verb *iyáyA* 'leave a place going there'.

[13] Furthermore, there is a nominal suffix, namely *–ta* 'to, at, in', which is attached to nouns to indicate location, for instance: *maȟpíya*-ta 'to/in the sky', *otȟúŋwahe-ta* 'to/in town', *owóžu-ta* 'to/in the field' (see example (17), *pahá-ta* 'to/at the hill'), etc.

Event quantification (henceforth EQ) indicates the frequency of an entire event, for example: habitual, resumptive, repetitive, distributive, frequentative, etc. Lakota marks this grammatical information mainly through the use of adverbs such as *óhiŋniyaŋ* 'always', *ižéhaŋ* 'often', *khitȟála* 'frequently', *šna* 'regularly', *akhé* 'again, back', *phiyá* 'again', *ákta* 'again', *phiphíya* 'again and again', *aktákta* 'repeatedly', etc.:

(16) Óhiŋniyaŋ owáčhekiye thípi kiŋ él
always church house the at
wa-čhé-wa-ki-ye ló
ABS-STEM-1SG.ACT-DAT-pray DECL
'I always pray in the church.'

Nevertheless, Lakota also uses enclitics, namely *s´a* 'usually' and *tkȟá´* 'used to' in order to express habitual aspect:

(17) Aŋpétu iyóhila owóžu-ta uŋ-yáŋ[14]-pi s´a
day every field-LOC 1.ACT-leave.from.here-PL usually
'We usually go to the field every day.'

(18) Bló óta o-Ø-Ø-žú-pi tkȟá´
potato many LOC-3.ACT-3.STA-plant-PL used.to
'They used to plant many potatoes.'

3.5. Modality

RRG distinguishes between root modality and epistemic modality. On the one hand, this approach uses the term 'modality' to refer to what is called the root sense of modality and therefore includes ability, capacity, permission[15], obligation and volition. Lakota expresses ability, capacity and permission through the auxiliary verb *okíhi*, realises obligation by means of the enclitics *kta héčha*, *kta iyéčheča*, or *kta (iyéčheča/iyéčhetu) tkȟá*, and conveys the notions

[14] The verbal root *yÁ* 'go' becomes nasalized owing to the presence of a nasal vowel in the preceding syllable.

[15] Lakota often expresses permission by means of the imperative enclitics *ye* or *yo*.

of volition and necessity through the auxiliary verbs *wačhíŋ*[16] 'intend' and kiníča 'need' respectively:

(19) Šúŋkawakȟáŋ mitȟáwa ičázop s´e Ø-íŋ-Ø-yaŋke[17]
horse my streak like 3SG.STA-STEM-3SG.ACT-run
o-Ø-kíhi
STEM-3SG.ACT-be.able.to
'My horse can run very fast.' (lit. 'My horse can run like a streak.')

(20) Mní eyá Ø-l-atkáŋ o-wá-kihi he?
water some 3SG.STA-2SG.ACT-drink STEM-1SG.ACT-be.able.to INT
´Can I drink some water?`

(21) Nitȟá-oyate ohó-wičha-ya-kila-pi kta héčha[18]
your-people STEM-3PL.STA-2.ACT-respect-PL POT must
'You must respect your parents and grandparents.'

(22) Čhéye Ø-kiníča-pi
cry 3.ACT-need-PL
'They need to cry.'

3.6. Status

The terms mood and modality have been used many times in studies of grammatical categories in overlapping ways. RRG does not use 'mood' as a theoretical term because it is a complex

[16] This auxiliary verb seems to have been grammaticalized from the main verb *čhíŋ* 'want', more specifically from the first person singular form of this verb, namely *wačhíŋ* 'I want'. This fact is especially noted in its conjugation, since the auxiliary verb now presents the first person singular form *wačháŋmi*, which retains the original first person pronominal prefix *wa* 'I' and adds an irregular nasal pronominal suffix standing for the person.

[17] The verb *íŋyaŋkA* 'run' is very irregular since it presents two correferential pronominal affixes within the verbal complex : *wa-íŋ-mn-aŋke* 'I run', *ya-íŋ-n-aŋke* 'you run', etc.

[18] See page 27 for a more accurate analysis of this expression.

category whose composition in terms of more basic operators may vary crosslinguistically and, within this theoretical framework, it is considered important to keep these concepts distinct. Thus, under the umbrella term 'mood' Foley and Van Valin (1984: 213) include status, which in turn includes the expression of the realis vs irrealis distinction or 'grammatical mood' (i.e. indicative, subjunctive, etc.), external negation and epistemic modality or 'grammatical mood', and IF or 'speech act mood' (i.e. declarative, imperative, and interrogative).

3.6.1. Epistemic modality

As mentioned above, the set of grammatical distinctions termed 'epistemic modality', which specifies the speaker´s commitment to the truth of what is being related, is included in RRG´s operator system under status. Lakota expresses epistemic modality through both enclitics and adverbs. For instance, some enclitics like *huŋšé*, *itékA*, *načhéčA*, *húŋšé, s´e, čhél,* and *lakȟa* that convey the meaning of certainty, *séčA* 'maybe, perhaps, probably' and *sél* 'perhaps, possibly, might', which indicate probability and possibility, and *tkȟá´*, which express contrary-to-fact assertions. Some adverbs that express probability and possibility[19], such as *wičákȟeya* 'truly, certainly', *itéšniyaŋ* 'truly, for sure', *ečháš* 'for sure', *takómni* 'definitely', *tokȟáš* 'maybe, perhaps', *uŋgná(š)* 'maybe, perhaps, possibly', *ókini* 'might, maybe, perhaps, possibly', *owékinaháŋš* 'might, maybe, perhaps, possibly', etc.:

(23) Hokšíčala kiŋ Ø-čhéye huŋšé
baby the 3SG.ACT-cry surely
'I am sure that the baby is crying.' / 'The baby must be crying.'

(24) Ø-hiŋȟpáya itéke
3SG.STA-fall be.evident
'He must have fallen.'

(25) Hokšíčala kiŋ Ø-čhéye séče

[19] Possibility in Lakota can also be expressed by the auxiliary verb *pȟíčA* 'be possible to', which is inflected for the subject:

E.g. Iyá-Ø-uŋpe-ma-phiča šni
STEM-3SG.STA-blame.for-1SG.ACT-be.possible not
'I cannot be blamed for it.' (Buechel 1939: 297)

baby the 3SG.ACT-cry maybe

'I gather that the baby is crying.' / 'Maybe the baby is crying.'

(26) Ókini Ø-kȟúže

maybe 3SG.STA-sick

'He might be sick.'

3.6.2. External negation

The Lakota enclitic *šni* can modify not only the nucleus or the core, but also the whole clause, leading then to an example of clausal, wide-scope, or external negation, which is analysed by RRG under the status operator:

(27) Ȟtálehaŋ šúŋkawakȟáŋ waŋ akáŋ(l)-Ø-m-aŋke šni

yesterday horse a LOC-3SG.STA-3SG.ACT-sit not

éyaš hékta okó k´uŋ héhaŋ šúŋkawakȟáŋ waŋ

CLM back week aforesaid then horse a

a-káŋ-Ø-m-aŋke

LOC-3SG.STA-3SG.ACT-sit

'I didn´t ride a horse yesterday but last week.' (lit. 'I didn´t ride a horse yesterday but it was last week that I rode a horse.')

Unlike the example in (12), where the negative enclitic *šni* affected the whole clause, in (26) this element only affects the adjunct *ȟtálehaŋ* 'yesterday' but, as this peripheral element lies outside the core but inside the clause, it is also an instance of clausal negation.

3.6.3. Realis vs irrealis

Lakota does not present different modal paradigms (e.g. indicative, subjunctive, conditional, hortative, etc.), but the actuality of an event is distinguished very clearly. This language uses the enclitic *ktA* to this end in a wide range of constructions, such as future time, subjunctive, conditional, desiderative, potential, jussive, optative or hortative, where a hypothetical

meaning is present. Consequently, in Lakota, the dichotomy realis vs irrealis is realised as a binary morphological distinction: it does not mark morphologically when the action has been realised, but it does mark when the action has not been realised:

REALIS:		
Indicative	*Ø-wašté*	'He is is good.'
(declarative)		
IRREALIS:		
Conditional	*Ø-wašté kiŋháŋ, …kte*	'If he is good, …'
	Ø-wašté (e)háŋtaŋš, …kte	'If he were good, …'
	Ø-wašté yuŋkȟáŋš, …(kta) tkȟá	'If he had been good, …'
Desiderative	*Ø-wašté (kte) Ø-čhíŋ*	'He wants to be good.'
Dubitative	*Itȟó Ø-wašté kte*	'I guess he is good.'
Hortative	*Uŋ-wašté-pi kte*	'Let´s be good!'
Hypothetical	*Ø-wašté kta tkhá*	'He could be good.'
Optative	*Ø-wašté kte ní*	'I wish he would be good.'
Potential	*Ø-wašté kte načhéča*	'He will probably be good.'

Table 1: The distinction realis vs irrealis in Lakota

3.7. Tense

Lakota shows no morphological indication of tense; hence it could be claimed that it is, in fact, tenseless. However, despite the fact that Lakota has no grammaticalized reference to time, time is intimated by means of the addition of time adverbials such as *waŋná* 'now', *waŋná lehánl* 'right now', *ȟtálehaŋ* 'yesterday', *híŋhaŋni kiŋ* 'tomorrow', *waníyetu tópa imáhel* 'within four years', *hékta waníyetu núŋpa k´uŋ héhaŋ* 'two years ago', *eháŋk´ehaŋ* 'in the old days, long ago, formerly', etc.:

(28) Aŋpétu kiŋ lé Jimmy na Maggie uŋ-thípi él

day the DEIC Jimmy and Maggie our-tipi to
Ø-hí-pi
3.ACT-arrive.here-PL
'Jimmy and Maggie come to our house today.'

(29) Ȟtálehaŋ Jimmy na Maggie uŋ-thípi él
yesterday Jimmy and Maggie our-tipi to
Ø-hí-pi
3.ACT-arrive.here-PL
'Jimmy and Maggie came to our house yesterday.'

3.8. Evidentiality

The grammatical system for coding the source of information is commonly referred to as evidentials. Lakota reflects the different sources of information (e.g. hearsay, inference, conjuncture, or personal eyewitness) through the use of enclitics like *škȟÁ* 'it is said', or *ké(yA)*[20] 'it is said':

(30) Hokšíčala kiŋ Ø-čhéye škȟé
baby the 3SG.ACT-cry it.is.said
'It is said / They say that the baby is crying.'

(31) Hokšíčala kiŋ Ø-čhéye Ø-kéya-pi
baby the 3SG.ACT-cry 3.ACT-say-PL
'It is said / They say that the baby is crying.'

[20] Although *kéyA* is nowadays considered an enclitic (LLC 2011: 299), it continues to behave as a verb, since it can be marked for plural. Nevertheless, unlike the verb *kéya* 'say', *kéyapi* used as enclitic does not make reference to a third person plural definite participant:

E.g. Hokšíčala kiŋ Ø-čhéye Ø-kéya-pi
baby the 3SG.ACT-cry 3.ACT-say-PL
'It is said that the baby is crying.'

3.9. Illocutionary force

The illocutionary force (henceforth IF) of an utterance reflects the speaker's intention when producing that utterance. This grammatical information is universal since all languages have ways of distinguishing statements, questions, and commands, whether by grammatical markers, intonation, or a combination of the two. In order to signal IF, Lakota uses a great number of enclitics, which vary according to the type of IF, the gender and number of the speaker, and the ending of the preceding word. The following chart shows the different markers used in Lakota to indicate the IF of an utterance:

Table 2: IF markers in Lakota (adapted from LLC 2011: 820-822)

Illocutionary Force	Enclitic			
	Male speaker		Female speaker	
	Singular	plural	singular	plural
Declarative	*a, aŋ, e, i, iŋ -> -yeló* *o, u, uŋ -> weló* *e*-ablaut -> *ló*	*-peló*	*a, aŋ, e, i, iŋ -> -ye* *o, u, uŋ -> we* *e*-ablaut -> *le*	*-pe, -kštó*
Interrogative[21]	*-he, -hwo (formal)*		*-he*	
Imperative[22]	*a, aŋ, e, i, iŋ -> -yo* *o, u, uŋ -> wo*	*-po*	*a, aŋ, e, i, iŋ -> -ye* *o, u, uŋ -> we*	*-pe, -pi*

(32) Lakȟótiyapi na-Ø-wá-ȟ´uŋ weló
Lakota.language STEM-3SG.STA-1SG.ACT-hear DECL
'I understand the Lakota language.'

(33) Tȟaló opȟé-Ø-ya-tȟuŋ ya-čhíŋ hwo?

[21] In order to express an informal question, especially when the questioner does not expect an answer or when the person being asked is not assumed to know the answer, *-so* (male speakers) and *-se* (female speakers) are used instead of *-he*.

[22] Concerning the imperative IF, there is a difference regarding whether the command is addressed to one (singular) or more than one speaker (plural). In order to mark informal commands, *-yetȟó* (male speakers) and *-nitȟó* (female speakers) are used, rather than *-yo* and *-ye*. Furthermore, when the imperative conveys an entreaty rather than a command, both men and women use *–ye*.

meat STEM-3SG.STA-2SG.ACT-buy 2SG.ACT-want INT
'Do you want to buy meat?'

(34) Waháŋpi kiŋ Ø-yatkaŋ yo!
soup the 3SG.STA-drink IMP
'Drink the soup!'

4. Ordering of operators

Now that every kind of operator in Lakota has been presented, a reasonably detailed description of the mutual order between the elements conveying the ATM information will be given in this section of the paper by analysing the position occupied by these markers in relation to the nucleus.

This study is concerned with the study of the order of enclitics and auxiliary verbs, rather than adverbs. Adverbs expressing these grammatical meanings always occupy a pre-verbal position within the clause although this is not always the same as they can occur in three different positions : clause-initial position (e.g. *takómni* 'definitely'), preceding the subject, expressed syntactically through a dependent reference phrase, and verbal complex (e.g. *ižéhaŋ* 'often'), or before the verbal complex (e.g. *lečhála* 'just now'). Further research is needed, however, to establish whether the positioning of these lexical elements in Lakota responds to an established ordering principle or not. Although adverb ordering is indeed deserving of attention, I consider that it should definitely be considered separately.

The order of these functional morphemes within a word has always been considered an important area for typological study. A fairly heated debate has taken place over the past few decades concerning what is actually reflected in morpheme ordering and a number of scholars (e.g. Narrog 2010, for Japanese; Pollock 1989, for French; Rice 2000, for Athabaskan; Yang 1994 for Korean), have provided strong evidence in a variety of grammatical frameworks to confirm that relations between particular morpheme orders and (semantic or syntactic) scope are undoubtedly observable cross-linguistically. The data obtained with regard to Lakota shows that the order of these functional elements is governed by semantic scope and that the relationship between morpheme ordering and scope is captured elegantly by RRG´s proposal

for ordering, which is based on scope in the sense that every operator is attached to a particular layer of the clausal structure.

4.1. Relationship between order and scope

RRG posits the existence of three groups of operator -- nuclear, core and clausal -- selected on the basis of the layer of the clause they modify. These three different groups of operator are represented in the operator projection, becoming a mirror image of the constituent projection, which in turn consists of the following layers: 1) the nucleus, containing the predicate; 2) the core, comprising the nucleus and its arguments; 3) the clause, formed by the core and any peripheral elements of the clause; and 4) the sentence, containing the clause and any element in dislocated position (i.e. pre/post-core slots and left/right-detached positions):

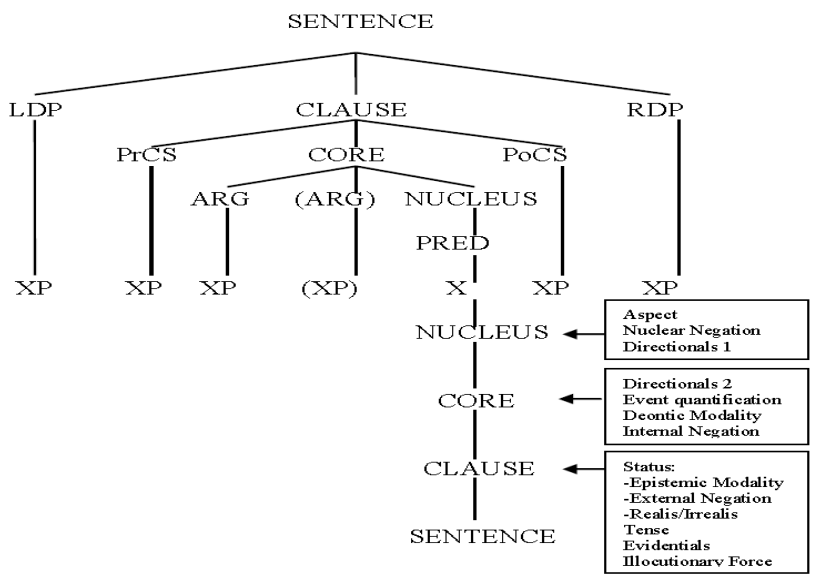

Figure 1: Layered Structure of the Clause with constituent and operator projections (Van Valin 2005: 12)

Regarding the linear ordering of these operators, RRG (Foley and Van Valin 1984; Van Valin 1993, 2005; Van Valin and LaPolla 1997) claims that there is a primary principle governing the relative order of these elements with reference to the nucleus and assumes that this ordering is a function of the semantic scope and works cross-linguistically. Thus, the nuclear operators must occur closest to the nucleus, the core operators farther from the nucleus

than the former, but closer to it than the (sentential) clausal operators, which must be placed the farthest from the nucleus. This proposal resembles Hengeveld´s (1989, 1990), which also puts forward the idea that the order of operators within the multi-layered hierarchical model of the utterance proposed by Functional Grammar[23] (hereafter FG) reflects the scope relations between the grammatical categories conveyed by these operators. Furthermore, this ordering also seems to accord with Bybee´s (1985) Relevance Principle[24], in which the ordering of grammatical morphemes is restricted by the relevance of their meaning to the semantics of the predicate. Thus, for example, the aspectual operator, which is related to the internal temporal structure of the event, must be placed the closest to the nucleus, whereas the illocutionary force operator, which identifies the nature of the speech act performed by the sentence, must be the outmost operator:

(35) M-íŋstíŋma-he šni yeló
1SG.STA-sleep-CONT not DECL
ASP[25] NEG IF
'I am not sleeping.'

This example, which contains three different operators, namely aspect, negation and IF, confirms RRG´s primary principle governing the linear ordering of operators, since the nuclear

[23] The multi-layered hierarchical model put forward by FG builds upon RRG´s model of the Layered Structure of the Clause since they both conceive of clause structure as layered. One difference between these two models could lie in the different nature of the clause structure, which is primarily semantic in FG and both semantic and syntactic in RRG. Another difference lies in the fact that, unlike FG, RRG does not consider that the operators are part of the layer. Finally, the order of categories put forward in both approaches is not exactly the same.

[24] The basic idea behind morpheme ordering is shared both by RRG and Bybee. However, although the concepts 'scope' and 'relevance to the predicate' are related to morpheme ordering based on semantic information, they are not necessarily the same. This discussion is presented best in Cinque (2014) and Manova and Aronoff (2000).

[25] From this point onwards, the glosses have an additional line in order to make the representation of mutual ordering between operators visually clearer.

operator is the left-most element and the clausal operator the right. Figure 2 below shows a template illustrating the linear ordering exhibited by the Lakota operators[26]:

PREDICATE-**NUCLEAR**-Number-Pronominal Arguments-**NUCLEAR**-**CORE**-**CLAUSAL**			
ASP	ASP	MOD	STAT: IRR-MOD-NEG
	NEG	NEG	EVID
		EQ	IF

Figure 2: Linear ordering of operators in Lakota

As we can see, operators in Lakota tend to follow the verbal stem. Below are a number of sentences in Lakota including combinations of more than one enclitic, which serve to support the positional order of operators shown in the aforementioned template:

(36) Waŋná thȟapáphapi Ø-škáta-haŋ-pi šni
now baseball 3.ACT-play-CONT-PL not
ASP **NEG**
'They are not playing basketball.'

(37) Iyéčhiŋkiŋyaŋka waŋ wa-káȟapa-haŋ škȟé
car a 1SG.ACT-drive-CONT it.is.said
ASP **EVID**
'It is said that he has been driving a car.'

(38) Hél naháŋȟči n-uŋká-haŋ he?
there still 2SG.ACT-lie.CONT INT
ASP **IF**
'Are you still lying there?'

The example in (36) shows two enclitics, namely those expressing aspect and core negation in this order, supporting the claim that the nuclear operators should be closer to the nucleus than the core operators. The examples in (37) and (38) also support the expected linear

[26] This template does not include some instrumental and directional particles which occur as verbal prefixes, such as *na-* or *pa-* and *a-*, *e-* or *o-* respectively (see examples (11), (15) and (18).

ordering, since the enclitic providing aspectual information is followed by a clausal operator indicating evidentiality in (37) and IF in (38):

(39) Thiyáta-kiya glé Ø-kiníča séče
home-LOC return 3SG.ACT-need perhaps
MOD STAT
'Perhaps he needs to go home.'

(40) Ó-ma-ya-kiya o-yá-kíhi he ?
STEM-1SG.STA-2SG.ACT-help STEM-2SG.ACT-be.able.to INT
MOD IF
'Can you help me?'

(41) Wa-l-áwa-pi s´a he?
STEM-2.ACT-go.to.school-PL usually INT
EQ IF
'Do you (PL) usually go to school?'

In (39) – (41) we can observe that core operators precede clausal operators in Lakota, since the enclitics expressing necessity, classified under modality, and event quantification occur closer to the nucleus than the enclitics marking epistemic modality, belonging to status, and IF.

Regarding the relative order of operators within each layer, the following examples include more than one operator belonging to the same layer. Thus, the sentence in (41) shows that the aspectual operator *hÁŋ* precedes nuclear negation:

(42) Wa-čhéya-haŋ šni
1SG.ACT-cry-CONT not
ASP NEG
'I am not crying.'

The enclitics *la* and *kA*, which express the speaker´s affection and an attenuation of the verbal meaning and could consequently also be considered to convey aspectual information (intensive aspect) and nuclear negation respectively, occur outside of *hÁŋ* (Taylor and Rood 1996: 473-474).

Unlike the ordering within nuclear operators, the positioning of core operators is not so evident. As we will see, although some core operators do not seem to have a fixed position, a tendency may exist whereby modality occurs closer to the nucleus than core negation, with the latter tending to precede event quantification (see example (56) for a possible exception):

(43)	O-čhí-čaȟniga	o-wa-kíhi	šni
	STEM-1SG.ACT+2SG.STA-understand	STEM-1SG.ACT-be.able.to	not
		MOD	**NEG**

'I cannot understand you.'

(44)	Wa-Ø-čhí	šni	s'a
	STEM-3SG.ACT-dance	not	usually
		NEG	**EQ**

'Usually he doesn´t dance.'

Regarding the linear ordering existing among the clausal operators, status seems to be the clausal operator appearing closest to the predicate, followed by evidentiality, with the IF operator occurring on the sentence periphery, as illustrated by the following example:

(45)	Ečháŋni	wakȟáŋ-Ø-kičhi-yuzapi	kta	škȟé	(ye)ló
	soon	sacred-3.ACT-REC-marry-PL	POT	it.is.said	DECL
			STAT	**EVID**	**IF**

'It is said that they are going to get married soon.'

As for the linear ordering among the different operators included under Status, the distinction between realis and irrealis seems to be the first clausal operator and external negation seems to precede epistemic modality:

(46)	Híŋhaŋni	kiŋ	uŋgnás	Ø-mağažu	kte	šni	séče
	morning	the	maybe	3SG.ACT-rain	POT	not	perhaps
					IRR	**NEG**	**E.MOD**

'I gather it will not rain tomorrow.'

In summary, the evidence shown by the examples given above seems to confirm the assumption held by RRG that languages have a closed system of operators in which--depending

on the grammatical information it provides--each group of operators appears to apply to a different level of the Layered Structure of the Clause and, furthermore, that a direct relation exists between these levels and the position of each group of operators within a sentence:

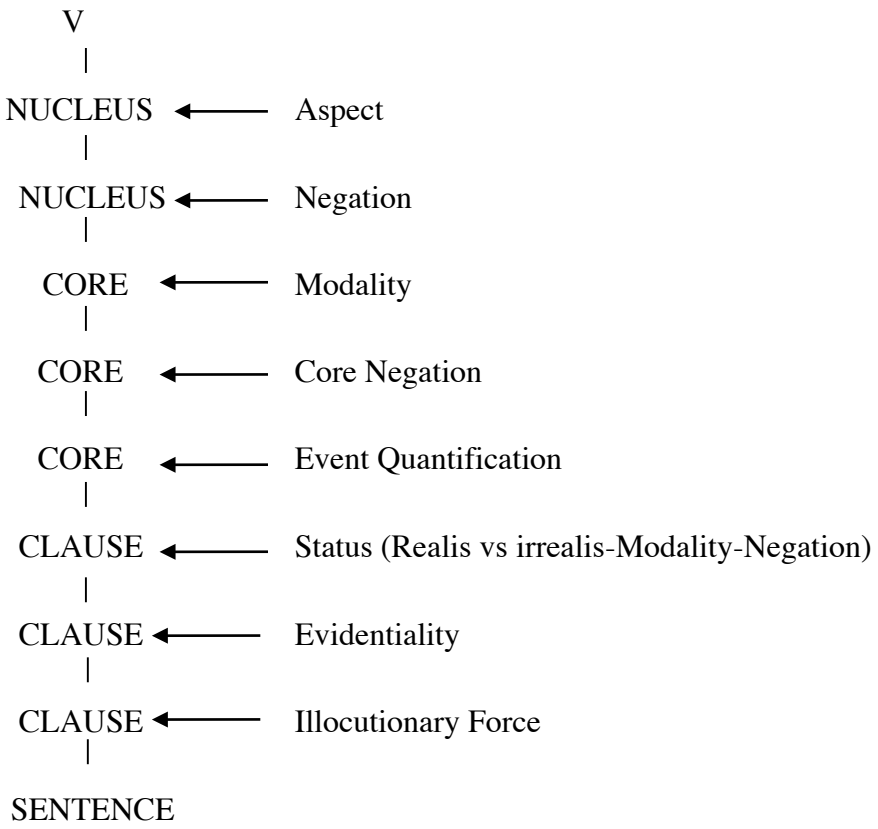

Figure 3: The operator projection in Lakota

Although the analysis of all these combinations of operators in Lakota shows that the order of these elements adheres faithfully to the semantic scope, the description given in this paper does not attempt to be exhaustive, since it is impossible to include all the operators of the verbal complex in all their possible combinations. Nevertheless, with respect to the relationship between the order of meaningful elements and semantic scope, at least the most representative cases are included and discussed.

4.2. Apparent conflicts

It is possible to find some constructions apparently in conflict with the principle governing the ordering of operators within a sentence. Firstly, we have constructions that include the enclitics *kta/e héčha, kta iyéčheča, kta iyéčhetu* or *kta (iyéčheča/iyéchetu) tkȟá*, manifesting deontic modality. A few sentences in which some postverbal elements deviate from the expected order are given below:

(47)	Héhaŋ	ma-yuha	kte	šni	iyéčheča
	then	1SG.STA-3SG.ACT.have	POT	not	should
			STAT	**STAT**	**MOD**

'She should not have given birth to me then.' (Buechel 1978: 393)

(48)	Eháŋni	h(e)-éč-am-uŋ	kta	iyéčhetu	tkȟá
	long.time.ago	DEIC-STEM-1SG.ACT-do	POT	should	CF[27]
			STAT	**MOD**	**STAT**

'I should have done that long ago.' (LLC 2011: 345)

(49)	Ağúyapi	na	čhaŋháŋpi	opȟé-uŋ-tȟuŋ-pi	kta	héčha
	bread	and	sugar	STEM-1.ACT-buy-PL	POT	must
					STA	**MOD**

'We have to buy bread and sugar.' (Rood and Taylor 1976: 198)

(50)	Sakhíb	uŋ-yíŋ	kte	iyéčhetu	welo
	together	1.ACT-go.there	POT	must	DECL
			STAT	**MOD**	**IF**

'We must go together.' (Deloria 1932: 101)

In (47) – (50) enclitics expressing obligation, namely *héčha, iyéčheča* and *iyéčhetu*, occur farther from the nucleus than the enclitic *ktA*, which has always been considered to mark the distinction realis vs irrealis. These combinations, in which a status operator precedes a core

[27] Contrary-to-fact or counterfactual epistemic modality.

operator, are problematic, since this positioning appears to contradict the principle governing the linear ordering of operators, with a status operator (realis vs irrealis) being closer to the nucleus than a modality operator (obligation). Examples (47) and (48) could be explained, however, by analysing the different enclitics in isolation. It is, therefore, worth mentioning that none of the enclitics expressive of obligation--*héčha, iyéčheča, or iyéčhetu* for example-- can express deontic modality by themselves. Thus, in order to express obligation, these enclitics must occur in combination with the potential enclitic *ktA*. They could then be considered elements designating some type of epistemic modality, which would classify them under the status operator:

(47´)	Héhaŋ ma-yuha	kte	šni	iyéčheča
	then 1SG.STA-3SG.ACT.have	POT	not	CF
		STAT	**STAT**	**STAT**

'She should not have given birth to me then.' (Buechel 1978: 393)

(48´)	Eháŋni h(e)-éč-am-uŋ	kta	iyéčhetu	tkȟá
	long.time.ago DEIC-STEM-1SG.ACT-do	POT	CF	CF
		STAT	**STAT**	**STAT**

'I should have done that long ago.' (LLC 2011: 345)

As regards examples (49) and (50), in accordance with the LLC (2011: 344), it could, in fact, be argued that the enclitic *ktA* functions as an element expressing volition. Consequently, the solution I suggest here is that, if the enclitic *ktA* is regarded as a core operator expressing volitive modality--also known as 'boulomaic' (Kiefer 1994: 2517) or 'bouletic' (Palmer 1986: 12)--, which is, in turn, considered a subcategory of deontic modality, and the enclitics *héčha* and *iyéčhetu* are classified as evidentiality operators (indicating information inferred by direct physical evidence, by general knowledge, or because the speaker has experienced a similar situation), the position of the operators in these constructions would match the expected linear ordering:

(49´)	Ağúyapi	na	čhaŋháŋpi	opȟé-uŋ-tȟuŋ-pi	kta	héčha
	bread	and	sugar	STEM-1.ACT-buy-PL	VOL	have.to
					MOD	**EVID**

'We have to buy bread and sugar.' (Rood and Taylor 1976: 198)

(50´) Sakhíb	uŋ-yíŋ	kte	iyéčhetu	welo
together	1.ACT-go.there	VOL	must	DECL
		MOD	**EVID**	**IF**

'We must go together.' (Deloria 1932: 101)

Secondly, we have constructions where the enclitic *ktA* and the auxiliary verb *okíhi* appear to alternate (LLC (2011: 427). Although it is possible to find constructions where the modality operator *okíhi* precedes the status operator *ktA* (51), sentences including *ktA* preceding *okíhi* (52) would seem to be more common, contradicting the principle governing the linear ordering of operators, since a clausal operator would therefore be closer to the nucleus than a core operator:

(51) Wakȟáŋ	Tȟáŋka[28]	tȟókičhuŋze[29]	kiŋ	waŋ-Ø-yáŋka
sacred	big	his.kingdom	the	STEM-3SG.STA-3SG.ACT.see
o-Ø-kíhi		kte	šni	
STEM-3SG.ACT-be.able.to		POT	not	
MOD		**STAT**		

'He cannot see the Kingdom of God.' (lit. 'He cannot see the Kingdom of the universal spiritual power / the Great Spirit.')

(52) Wíŋyaŋ	iyútaŋ-wičha-Ø-ye		uŋ	hé	
woman	STEM-3PL.STA-3SG.ACT.tempt		CLM	DEIC	
natȟá-Ø-Ø-ka-pi		kta	o-Ø-kíhi-pi		šni
STEM-3SG.STA-3SG.ACT-pause		POT	STEM-3.ACT-be.able.to-PL		not
		STAT	**MOD**		

'They could not stop him tempting women.' (Deloria 1932: 162)

[28] The concept *Wakȟáŋ Tȟáŋka* is very difficult to translate. Although it should be rendered as ´the universal spiritual power`, it is normally translated as 'the Great Spirit' or 'God'.

[29] This term is formed by the third person possessive prefix *tȟa* plus the noun *wókičhuŋze* 'government, kingdom'.

It is widely assumed that deontic modals modify the relation between the participant and the action and that epistemic modals are concerned with the speaker's judgment. According to the rules governing linear precedence, the modals should be ordered with respect to each other in terms of their semantic scope, with the deontic modals occurring closer to the verb than the epistemic modals. That is to say, the operator with a narrow semantic scope (deontic modality) precedes the operator with a wider semantic scope (epistemic modal). An attempt to account for the irregular ordering shown by the sequence *kta okíhi* in (52) could stem from the assumption that, as in many languages--like English for example--, where modal verbs like 'can' can express both root and epistemic modality, the operator *okíhi* used here could convey the idea of likelihood with two consecutive status operators. However, this possibility is probably untenable since there seems to be a clear-cut distinction in Lakota between root and epistemic modality so that none of the elements expressing modality is able to express both types of modal meaning.

A better way of analysing this anomalous ordering might involve the consideration of *okíhi* as an auxiliary verb, which can be inflected and also requires the preceding verb to be inflected, so that it seems plausible that the enclitic *ktA* could have scope over the first verb rather the second and that, consequently, the preceding verb, together with its arguments and operator, would constitute an embedded clause linked to the following verb *okíhi*[30]. Thus, the sequence *kta okíhi* would entail a present capacity for a future potentially realisable action and *okíhi ktA* a future capacity for an action obviously likely to take place in the future:

(53) Iyéčhiŋkiŋyanke kiŋ aphí-Ø-wa-ya kta
car the STEM-3SG.STA-1SG.ACT-fix-CAUS POT
o-wa-kíhi
STEM-1SG.ACT-be.able.to
'I can fix the car.' (lit. 'I am able I will fix the car.')

(54) Iyéčhiŋkiŋyanke kiŋ aphí-Ø-wa-ya

[30] A similar case could be illustrated by the verb *čhíŋ* 'want':

E.g. O-Ø-y-úspa-pi kta Ø-čhíŋ-pi
STEM-3SG.STA-3.ACT-catch-PL POT 3.ACT-want-PL
'They want to catch him.' (lit. 'They want that they will catch him.') (LLC 2011: 96)

car the STEM-3SG.STA-1SG.ACT-fix-CAUS
o-wa-kíhi kte
STEM-1SG.ACT-be.able.to POT
'I can fix the car.' (lit. 'I will be able I fix the car.')

The sentence in (53) would imply 'I think that now I am able to repair the car', whereas the example in (54) could be paraphrased by 'I think that in the future, maybe not now, I will be able to repair the car'.

Finally, as was mentioned above (pages 23-24) regarding the relative order between core negation and event quantification, although the enclitic *šni* normally precedes the enclitic *s´a* (55), despite regarding it as exceptional, my native consultants feel confident that it is grammatically correct to use them in a reversed order, namely *s´a šni* (56), and they argue that this change of order entails a slightly different interpretation:

(55) Ø-kaȟápa šni s´a
3SG.ACT-drive not usually
NEG **EQ**
'Usually I don´t drive.'
(56) Ø-kaȟápa s´a šni
3SG.ACT-drive usually not
EQ **STAT**
'I don´t usually drive.'

According to my native consultants, the difference between these two examples might conceivably lie in the scope of the negative enclitic *šni*. Thus, on the one hand, in (55) *šni* would only have scope over the predicate, but not over the enclitic *s´a*, leading to an interpretation of the sentence as 'Usually I don´t drive', which could be continued by '…, I ride a horse'. On the other hand, the example in (56) would imply that the element being negated is *s´a*, rather than the predicate, so that this sentence could be interpreted as 'I don´t usually drive', which could be followed by '…, I hardly ever drive' (see Cumberland 2005: 320 for an analogous example in Assiniboine).

5. Conclusion

In this paper the ATM functional domain in Lakota was examined using RRG´s theory of operator system. After describing each grammatical category, a comprehensive analysis of the linear order of the different operators in this language was then carried out. The findings obtained in the analysis of the linear ordering exhibited by the Lakota operators appear to validate RRG´s principle of linearity, since it conforms to the sequence nucleus > nuclear operators > core operators > clausal operators, in which operator ordering correlates with scope. There are, however, some constructions that seem to call this claim into question, especially those including the enclitics *ktA* and *šni*, which sometimes appear to be placed in an unexpected order when they are combined with other operators., It is particularly striking that the enclitic *ktA*, which is regarded as an irrealis marker (a clausal operator), normally precedes elements like *héčha, iyéčheča*, *iyéčhetu*, *tkȟá*, which serve to convey obligation, or *okíhi,* an auxiliary verb expressing deontic modality (both of them classified under modality). It is also worthy of note that the enclitics *šni* and *s´a* are able to change position with respect to each other, thus affecting the scope of the negative operator and consequently its classification as either core or clausal negation. Nevertheless, after close examination, it seems plausible that the enclitic *ktA* might be used to designate volition as well as the realis vs irrealis distinction, allowing for its classification under modality or status. It is also worth mentioning that this analysis appears to confirm the fact that deontic and epistemic modality never converge in Lakota. Regarding the enclitic *šni*, it is also clear that, in Lakota, negation may have scope over different layers and, therefore, that *šni* is able to occupy different slots within the template. These findings emphasise the fact that some enclitics are more versatile than others, but also that maybe the ordering of operators could not be so strict as would be desirable. Accordingly, these results also reveal the fact that the ordering of operators agrees with that put forward by Rood and Taylor (1996: 473), although the order of the enclitics *ktA* and *šni* is in fact freer than their template would suggest, since it is possible for them to express different grammatical meanings and, consequently, to have scope over different layers of the clause.

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