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MULTI-VERB CONSTRUCTIONS IN CHEYENNE¹

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Abstract: As multi-verb constructions are commonly believed to be a widespread feature of Native American languages, the aim of this paper is to offer an in-depth study of this particular phenomenon in Cheyenne (Plains Algonquian: USA) in accordance with the framework provided by Aikhenvald and Dixon (2006) and Aikhenvald and Muysken (2011), since their works cover the major parameters required for a cross-linguistic analysis of the different types of multi-verb constructions. This paper will show that, as Cheyenne does not allow for converbs that are generally considered to be examples of biclausal constructions, complex predicates should be interpreted as part of a monoclausal construction. Additionally, verb compounding is mainly asymmetrical in composition, since there are restrictions as to which verbs are included in every construction type. Indeed, the aim here is to provide a detailed description of verb combinations in Cheyenne while paying attention to their syntactic and semantic properties, thus allowing us both to observe their similarities and differences and analyse their place within the typology of multi-verb constructions.

Keywords: Cheyenne, multi-verb constructions, primary verb construction, secondary verb construction, compound verb construction, monoclausality, wordhood, composition, argument structure.

Introduction

This paper analyses mono-clausal multi-verb construction types in Cheyenne. A multi-verb construction is generally understood to consist of more than one predicated element combining to form a single clause semantically as well as syntactically. Once this concept has been introduced, the remainder of the paper is organized as follows. In section 1, I will give an overview of the most relevant morpho-syntactic properties of the verb structure in Cheyenne. Section 2 goes on to define the concept of the multi-verb construction and examines its properties in the context of the Cheyenne language. Section 3 contains a typological analysis of complex predicates² and explores the various syntactic, semantic and other diachronically relevant properties of multi-verb constructions found in this Native American language. I will concentrate on the three main types, namely the primary verb construction, which illustrates a multipartite complex predicate, the secondary verb construction and the compound verb construction, which involve complex predicates formed by a main verb supported by a predicated element and showing different degrees of dependency with respect to the main verb. Finally, section 4 closes the paper by outlining the main conclusions as well as suggesting some ideas for further research.

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² I adhere to Butt and Geuder (2001: 325) and Alsina et al. (1997: 1)'s definition of the concept of 'complex predicate' by including many superficially rather different constructions whose predicate structure is determined by more than one element and where each of the components of the complex predicate contributes, to a greater or lesser extent, to the predicate information normally associated with a head.

1. The Cheyenne language

Owing to the morphological complexity of Cheyenne³, it would seem appropriate to include a brief section describing its basic morpho-syntactic characteristics. This might help us to form a better understanding of the examples of the multi-verb constructions covered in the paper.

Cheyenne is an Algonquian language classified within the Plains Algonquian group, whose languages (Cheyenne, Blackfoot, Arapaho and Gros Ventre) show relevant divergent properties with regard to Proto-Algonquian, mainly in terms of its phonology and lexis. According to conventional morphological typology, Cheyenne is considered a polysynthetic language, since it exhibits a high morpheme-to-word ratio, a fairly regular morphology and verb forms that tend to include morphemes that stand for the different arguments in the predicate⁴:

- (1) É-s-ta-éve-ma'xe-asé-hótoaná-vomóhtáhé-otse
(3)-PAST-about-much-belly-difficult-be.sick.I-become.FAI
'He became critically ill.' (Leman, 1987b:195)

Cheyenne appears to be a clear example of a pronominal-argument language, since it expresses all the arguments of the predicate pronominally, with overt lexical referential phrases being optional. It is, likewise, a head-marking language because all its grammatical relations are coded in the verbal complex, which is at the head of the clause, rather than in independent referential phrases⁵, although the latter may also mark the obviative case:

- (2) É-véstáhem-o-ho he-vésenóho.
(3)-help.VTA-3:4-SG.A+4.P his-friend.OBV
'He helped his friend.'

³ Cheyenne, known as *Tsêhésenêstsestôtse* in the native tongue, is spoken by approximately 2,000 individuals living on the Northern Cheyenne Indian Reservation in southeastern Montana and the Cheyenne-Arapaho Indian Reservation in central Oklahoma. The data in this paper come mainly from my native consultants, supplemented with existing language materials such as a Cheyenne Grammar (Leman, 1980b), two collections of texts (Leman, 1980a & 1987b) and two Cheyenne dictionaries (Petter, 1915; Fisher et al., 2006). I wish to express my gratitude to these anonymous language consultants, native speakers of Cheyenne, with whom I have conducted fieldwork since 2010, for kindly sharing their knowledge of this language with me, and Wayne Leman for his continued support and valuable and insightful comments, which have helped to improve the quality of the manuscript considerably. I have glossed and translated all of the examples used in the paper, even the ones from supplementary sources. Needless to say, all errors remain my sole responsibility.

⁴ Abbreviations used in this paper: (1) – first person, (2) – second person, (3) – third person / proximate singular agreement, (4) – fourth person / obviative agreement, (11) – first person plural exclusive agreement, (12) first person plural inclusive agreement, (22) – second person agreement, (33) – third person plural agreement, (I) – inanimate singular agreement, (II) – inanimate plural agreement; SG – singular, PL – plural; VII – intransitive inanimate verb, VAI – animate intransitive verb, VTI – transitive inanimate verb, VTA – transitive animate verb, DITR – ditransitive verb; I – initial stem, M – medial stem, FAI – animate intransitive final stem, FTI – inanimate transitive final stem, FTA – animate transitive final stem; NA – animate nominal stem, NI – inanimate nominal stem; ADJ – adjectival stem, ADV – adverbial stem; DIR – directional, ASP – aspect, FUT – future, PAST – past, EVID – Evidentiality, IF – Illocutionary Force; DEIC – deictic; LOC – locative case marking; OBV – obviative case marking; BEN – benefactive case marking; REFL – reflexive; REC – reciprocal; CAUS – causative verb; A – agent, P – patient, T – theme, R – recipient, B – beneficiary; CISL – cislocative particle, TRSNL – translocative particle, ANAPH – anaphoric particle, CATAPH – cataphoric particle, RR – relative root; LINK – linker; CLM – Clause Linkage Marker.

⁵ Referential phrases may also sporadically mark the instrumental case.

- (3) É- véstáhem-o-ho
 (3)-help.VTA-3:4-SG.A+4.P
 ‘He helped him.’

In Cheyenne, personal pronouns are not realized by free words⁶; rather, they appear as particles – inflectional prefixes and suffixes - attached to both ends of the verbal complex. These particles carry complementary grammatical information in terms of person, number, animacy, salience and syntactic function, so that the marking of grammatical relations is carried out simultaneously by prefixes and suffixes and we cannot therefore separate the information provided by each of the affixes and assign each grammatical function a different affix.

In the Independent Order⁷ the verbal prefix, which appears to be attached at the initial position of the verbal complex, is the element that signals the most pragmatically salient participant according to the person hierarchy 2nd > 1st > 3rd > 4th > I, which adheres to the universal ranking of the local participants (i.e. first and second person over third persons), since the former are considered to have more animacy and salience or topicality than the latter. In Cheyenne, the personal prefixes present only one paradigm and, consequently, remain invariable regardless of the semantic role (thematic role) played by the participants in the clause:

Table 1. Personal pronouns realized by personal prefixes in Cheyenne. (Leman, 1980b)

Person	Affix
1 st . person singular (1)	ná-...
2 nd . person singular (2)	né-...
3 rd . person singular (3)	é-...
1 st . person plural exclusive (11 ⁸)	ná-...
1 st . person plural inclusive (12)	né-...
2 nd . person plural (22)	né-...
3 rd . person plural (33)	é-...
4 th ./5 th ./6 th .person (4)	é-...
Inanimate (I)	é-...

⁶ As Leman (1985: 19 & 25) shows, Cheyenne has a number of expressions whose function is similar to that of personal pronouns, although their meaning is largely emphatic, making them optional elements. Furthermore, it is unclear as to whether these expressions should be considered as free forms, since they are fully inflected verbal forms in both Independent and Conjunct Orders.

⁷ Apart from the different information they convey (i.e. the Independent Order includes all verb forms other than imperatives which can stand alone and the Conjunct Order is used for all dependent verb forms), the Conjunct also differs from the Independent Order in its relative poverty of agreement morphology reflected in the simplification of its suffixal agreements and the different function of its prefix. Thus, whereas in the Independent Order the prefix serves to express grammatical information in terms of the most pragmatically salient person, in the Conjunct Order it indicates the mood of the verb (indicative, subjunctive, participle, etc.).

⁸ Cheyenne has two different first person plural forms. The inclusive option is used to refer to ‘both you and I (and maybe others)’ (represented by ‘12’); that is, it includes the person(s) addressed. By contrast, the exclusive form is used only when we want to refer to ‘we’ (represented by ‘11’), thereby excluding the person(s) being addressed.

- (4) Ná-háa'èstahe.
(1)-be.tall.VAI
'I am tall.'
- (5) Ná-péhév-òhomo'he.
(1)-good.I-dance.FAI
'I dance well / I am dancing well.'
- (6) Ná-méhot-a
(1)-love.VTA-3:1
'She loves me.'

As we can see from examples (4), (5), and (6), the form of the personal prefix *ná-* remains invariable regardless of the type of verb and the semantic role played by the participant in the event. As noted above, not only does Cheyenne use prefixes to determine the person of the participants, but also has a myriad of final particles or suffixes covering a wide range of grammatical information (i.e. person, number, animacy, salience and syntactic function) concerning the obligatory arguments of the predicate. In the examples given above it appears that the suffixes *-Ø* in (4) and (5) and *-a* in (6) provide the appropriate grammatical information in terms of the person, number, animacy and syntactic function of the core arguments, making the grammatical information provided by both prefixes and suffixes complementary.

2. Multi-verb constructions in the context of Cheyenne

The ensuing study of multi-verb constructions in Cheyenne builds upon the typological studies conducted by Aikhenvald and Dixon (2006) and Aikhenvald and Muysken (2011). Before we begin to examine the different examples of multi-verb sequences in Cheyenne, in order to form an accurate impression of what types of verb sequences fall within their scope and how they can be properly analysed and classified it would seem necessary both to include a definition of the concept 'multi-verb construction' and to outline the different parameters used in these works to analyse and classify multi-verb sequences .

2.1. Definition of the concept of multi-verb constructions

It is generally assumed that a multi-verb construction comprises more than one predicating element combining to form a single clause semantically and syntactically. Functionally, this monoclausal construction "allows the speaker to express various aspects of a situation, or an event, within one clause and one predicate." (Aikhenvald and Muysken, 2011: 20).

With reference to the term 'multi-verb construction' (as well as others such as 'verb sequence', 'verb combination', etc.) used throughout this paper, I am aware that the inclusion and use of the noun 'verb' in this expression is not entirely accurate, as it would exclude the analysis of non-verbal predicates⁹ (e.g. *tséhése-nestse* 'speak Cheyenne', *péhév-átam* 'like, regard someone as good', and *háestò-anené* 'do a lot', respectively). Despite this, I have

⁹ See footnote 29.

decided to use it rather than the more correct term ‘multi-predicate construction’ for example, so as to adhere to tradition and because most of the examples discussed throughout the paper include verbal predicates.

2.2. Cheyenne verb structure¹⁰

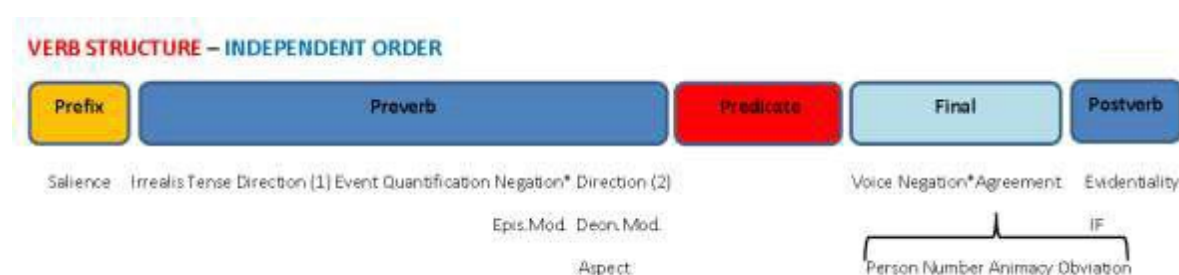
Cheyenne has three different verbal categories, which, according to Bloomfield (1946: 97-103), are commonly referred to as ‘orders’, that is, independent, conjunct and imperative orders. In independent and imperative orders, verbs form simple clauses that express complete sentences. Verbs in the conjunct order also form simple clauses but, by contrast, are dependent on an independent clause to convey a complete meaning:

- (7) Ná-sáa-nèx-héne’en-ó-he tsé-tónèsó-otse-stse
 (1)-NEG-CISL-know.VTI-1:I-NEG CLM-how.be.it.VAI-become.FII-I
 ‘I don’t remember what happened.’

This complex sentence consists of two different clauses -- the first, *ná-sáa-nèx-héne’en-ó-he*, in the Independent Order and the second, *tsé-tónèsó-otse-stse*, in the Conjunct order -- that cannot stand on their own, with the latter being dependent on the former in order to express a complete meaning. Likewise, an intonational pause in speech helps to identify the barrier between each clause, which would lead us to assume that one grammatical word like *ná-sáa-nèx-héne’en-ó-he* forms a prosodic unit therefore coinciding with a phonological word. To be more accurate, we could say that a prosodic unit in this language would coincide with a clause, since the Cheyenne pronounce a verb and its obligatory arguments without any pause.

Given the polysynthetic nature of Algonquian languages, most of the syntactic information contained in the sentence is in the verb, which could be considered the most important word category, since nothing else is needed to make a sentence in these languages. Its structure may become extremely complex, as is illustrated in the following template showing the verbal structure of Cheyenne in the Independent Order:

Table 2. Cheyenne verb structure in the Independent Order.



It is generally assumed that the overall pattern of an inflected predicate in any Algonquian language comprises a verb stem surrounded by inflectional suffixes. In Cheyenne, more specifically, the verbal complex may contain the following elements in the Independent Order, firstly, a verbal prefix, signalling the most pragmatically salient participant and, secondly, the preverbal particles between the prefix and the predicate expressing the

¹⁰ The same reasoning holds good for the term ‘verb structure’. Given the head-marking nature of this language, the use of this name would leave out the pronominal arguments that realize the core arguments of the predicate. However, although it would definitely be more accurate to use the term ‘core structure’, I have decided to keep the first denomination, which is traditionally the most common.

distinction realis vs. irrealis, past or future tense, event quantification, negation¹¹, direction, and different types of aspect and modal specifications.

Next, we have the most important element in the verbal complex, namely the predicate. As will be discussed in detail in the following section dealing with multi-verb constructions, predicates in Cheyenne can be either simple or complex, depending on the number of identifiable morphemes of which they are made up:

- (8) Ná-hotse'ohé Héeváhetanéno
 (1)-work.VAI Oklahoma.LOC
 'I work in Oklahoma.'

- (9) É-to-óom-áše'še
 (3)-cool.I-liquid.M-drink.FAI
 'He is drinking a cool liquid.' (Fisher et al., 2006: 230)

Example (8) shows an example of a simple verb, namely the intransitive animate verb *hotse'ohé* 'work', since it consists of a single stem¹² and cannot therefore be broken down into identifiable lexical elements. By contrast, example (9) illustrates an instance of a complex predicate, that is *toóomáše'še* 'drink a cool liquid', because it contains more than one lexical element, namely the morphemes *to-* meaning 'cool', *-óom-* indicating the name 'liquid', and *-áše'še* denoting the action of drinking. As these morphemes cannot constitute a word stem by themselves, they should be considered to be stem-forming elements - shortened versions of verbal or nominal stems - rather than full stems. A verbal stem may, therefore, vary its form because of the presence of other morphemes within the verbal complex, so that there might be a predicate consisting of up to three different stem-forming elements. According to traditional Algonquianist literature (e.g. Bloomfield, 1946; Goddard, 1979 & 1990; Wolfart, 1973, among others), these verbal morphemes, which constitute a complex predicate, are initial, medial and final, in accordance with their relative position within the verbal complex, which can be said to have a tripartite stem structure (i.e. initial + medial + final).

Following the verbal stem¹³, Cheyenne also uses a myriad of suffixes covering the grammatical information of the obligatory participants of the event in terms of person, number, animacy, salience, direct or inverse direction and syntactic function. Finally, we have the postverbal operators of evidentiality and Illocutionary Force.

Imperative verbs have the same structure as Independent verbs except for agreement suffixes. The structure of the verbal complex in the Conjoint Order is somewhat more distinctive since, in addition to showing different forms of agreement suffixes, the first slot is occupied by a

¹¹ Negation in the Independent Order is mainly expressed through two separate and complementary particles, namely *sáa*, a preverbal particle, and *hé*, a postverbal particle normally occurring between the suffixes and indicating voice and agreement:

E.g.: Né-sáa-vóom-atse-hé-me
 (2)-NEG-see.VTA-INV-NEG-1:22
 'I did not see you.'

¹² This stem comprises the verbal root *hotse'o* plus the suffix *-he*, an inflectional suffix denoting an animate agentivizer in a transitive verb.

¹³ As we will see in subsection 3.2., verbal stems can also be followed by other finals expressive of causation or volition for instance.

complementizer indicating the verbal mode (e.g. indicative, participial, irrealis, optative, dubitative, etc.), rather than by a prefix.

3. Typology of multi-verb constructions in Cheyenne

As we noted previously, the formation of verbal stems and the morpho-syntactic arrangement of the argument marking in Cheyenne reflect a clear-cut separation between derivational and inflectional suffixes as well as the lexical-derivational character of multi-verb constructions. Cheyenne uses derivational affixes to make complex verbal stems extremely frequently and, despite the rigidity of the templatic structure of its verbs, it has three main ways of assembling word stems: by primary derivation, by secondary derivation, and through compounding. A stem formed by primary derivation, commonly referred to as a primary stem, is made up of two or more stem-forming elements that do not constitute word stems by themselves. A stem formed by secondary derivation, generally named a secondary stem, is made up of an independent word stem and at least one additional stem-building element. Finally, a stem formed through composition, typically known as a compound stem, contains a relatively independent element, such as a preverb or prenoun, and an independent word stem.

If we adhere to this typology, Cheyenne displays three main types of complex verb construction, which will be referred to as a primary verb construction, a secondary verb construction and a compound verb construction. These three types of complex predicate, commonly known as multi-verb constructions, have in common the fact that each makes up a single clause and conceptualizes a single event or several closely linked subevents, with each predicate contributing its meaning to the whole complex event. Monoclausality can be confirmed after the phonological properties and the argument structure of these complex predicates have been examined. Firstly, the three types of verb sequences are only formally, but not phonologically, distinct, since they do not show any prosodic difference in terms of pitch¹⁴. Likewise, multi-verb constructions in Cheyenne show the same intonational properties as they would in a construction involving one single predicate and are pronounced as though they were one word with no pause in between the different predicates. Secondly, the components of these multi-verb constructions in Cheyenne act together as a single predicate since they present single marking. As a result of the templatic structure exhibited by the Cheyenne verbal complex (Table 2), the core arguments are marked only once, being expressed through inflectional affixes in such a way that the prefix marks the pronominal argument standing for the most salient participant in the event, with a number of suffixes including the grammatical specification concerning the person, number, animacy and obviation of all the participants as well as the syntactic relationship between them. This rigid arrangement of pronominal affixes at both ends of the verbal complex also reflects the tight character of complex predicates in Cheyenne, implying that neither of these can have an independent expression of arguments and obliques. These complex predicates therefore qualify as a contiguous one-word construction.

According to Aikhenvald (2006: 3), further evidence of the monoclausality of these constructions can be obtained after applying the following diagnostic criteria: the contiguity of their predicating elements, the expression and marking of grammatical categories, the wordhood of their components and the symmetry of their composition. As we have already mentioned, owing to the rigid arrangement of inflectional suffixes within the Cheyenne verbal complex, forcing them to occur after the derivational morphemes constituting the complex predicate, no argument can intervene in between the verbal constituents. Furthermore, in terms of marking

¹⁴ According to Leman (1981), Cheyenne has five different levels of pitch and, although it may also have a stress system, it does not play such an important role as pitch in Cheyenne prosody.

grammatical information, categories such as IF, evidentiality, tense, modality, negation, and aspect can only be marked once per construction. To conclude, on the basis of all these features, all types of multi-verb construct in Cheyenne must be analysed as though they were mono-clausal sentences.

Despite these similarities, these monoclausal sequences also show some differences, ranging from variation in terms of function (e.g. direction, orientation, posture, manner, instrument, aspect, modality, causation, sequentiality of events, etc.) to distinctions regarding their formal structure (e.g. the degree of dependency of the verbal components, the symmetry in their composition based on the word class to which they belong, the contiguity of their components, etc.).

3.1. *Primary verb construction*

There is a fully productive multi-verb construction in Cheyenne known as the ‘primary verb construction’ that consists of a verb sequence including a complex predicate whose immediate constituents are an initial, an optional medial and a final stem. Depending on the construction type, this multipartite predicate may consist of two or three bound morphemes that combine to form a bipartite or tripartite stem construction respectively where, having grammaticalized¹⁵ from a verbal root, none of these verbal constituents can occur on their own to form an independent verbal stem.

3.1.1. *Posture construction*

Posture verbs involve a multi-verb construction with a bipartite configuration and an asymmetrical composition, since the defining member of the construction comes from a closed set of basic verbs of posture, which follows another member including a verb from an open class:

Table 3. Final stems of posture verbs in Cheyenne¹⁶.

Semantic domain	Final stems
lie	-eše (FAI), -eše'ta (FTI), -eše'tov (FTA)
sit	-oo'e / -onooe'e / -(e)'e (FAI), -oo'e'ta / -onooe'eta / -ee'ta (FTI), -oo'e'tov / -onooe'e'tov / -'e'tov (FTA)
stand	-óó'e / -ó'é (FAI), -óó'e'ta / -ó'é'ta (FTI), -óó'e'tov / -ó'é'tov (FTA)

The following examples illustrate the posture verb construction in Cheyenne, with the predicate conveying the concept of posture occurring after the first predicate:

- (10) Ná-hoéstóné-eše
(1)-read.I-lie.FAI
'I lie reading.'

- (11) Ná-hoéstóné-e'e

¹⁵ See Jacobsen (1980) and DeLancey (1999) for more information on the grammaticalization of elements expressing direction, instrument, manner, etc. in bipartite stems.

¹⁶ The variability displayed by initial, medial or final stems can be accounted for by the fact that they may be affected in their pronunciation depending on how they fit in with other co-occurring elements in the verbal complex.

(1)-read.I-sit.FAI
'I sit reading.'

(12) Ná-hoéstóné-óó'e
(1)-read.I-stand.FAI
'I stand reading.'

Given that the verbs entering into the posture verb construction are intransitive, the organic valence of the open class verb is typically unchanged in the whole construction. Both predicating elements are intransitives and therefore share the subject. Semantically speaking, it appears clear that the first verb, realized by the initial stem *hoéstóné-* 'read', is the head¹⁷ of the construction because the role of the posture verb only appears to provide coextensive semantics (i.e. postural semantics) and therefore makes little contribution to the core predication. Although the form of the first verb remains unaltered when its transitivity changes owing to the inherent intransitivity of the posture verb, the syntactic head, is the element that determines the transitivity of the whole construction:

- (13) Ná-hoéstóne-ee'tá hoo'xevávòxe'èstoo'o
(1)-read.I-sit.FTI.1:I newspaper
'I sit reading the newspaper.'
- (14) Ná-ées(e)-oo'e-tov-o na-měšéme
(1)-talk.to.I-sit.FTA-3:4-SG.A+4.P my-grandfather.OBV
'I sit talking to my grandfather.'

In cases where this construction includes a transitive verb preceding the posture verb, such as the initial *hóooéstá* 'read something', an inanimate transitive verb, or *éestséstov* 'talk to someone', an animate transitive verb, the form of the main verb does not vary since it always occurs in the form of an initial. The grammatical information regarding the transitivity and animacy of the participants is suffixed to the last component of the verbal complex – an intransitive verb – by means of inflectional morphemes, such as *-ta / -htse / -hahtse* (FTI) or *-tov / -m / -ev* (FTA) that serve to adapt the whole complex predicate to the transitivity value required by the first predicate. This does not necessarily mean that the second verb becomes transitive, since the inflectional suffix could be considered to affect the whole complex predicate.

3.1.2. Construction expressing orientation plus (manner of) motion

Cheyenne has a multi-verb construction formed by two predicates conveying orientation and manner of motion respectively. This particular verb sequence has a bipartite configuration and symmetrical composition, since both parts of the construction come from restricted sets of basic verbs. The predicate denoting orientation draws from an extremely restricted class, basically composed of only two items (Table 4):

Table 4. Initial stems of orientational verbs in Cheyenne.

¹⁷ I am aware that the definition of the concept 'head' is problematic (Zwicky, 1985; Hudson, 1987) and that, therefore, it is not an easy task to delimit its properties when dealing with verb sequences. I will try, however, to identify in every example of a multi-verb construction in Cheyenne which element of the complex predicate has a more important role in determining the syntactic and semantic properties (i.e. syntactic category and semantic content) as a whole. There are cases in which it is difficult to identify the head of the complex predicate -- a factor that is particularly relevant in the development of this paper.

Semantic domain	Initial stem
arrive	<i>ho'</i> -
leave	<i>asé(t)</i> -

Cheyenne makes use of a couple of initial stems, namely *ho'*- ‘arrive’ and *asé(t)*- ‘leave’, to indicate that a participant of the action has reached a particular destination. According to Leman (1987a: 22), the initial *ho'*-, which can no longer constitute a verb root on its own, is a reflex of the Proto-Algonquian relative preverb * *ahkwi*- ‘that far, to (such a linear extent)’, which originally denoted the extent of the distance travelled. By contrast, the form of the initial *asé(t)*- mostly coincides with that of an independent verb, namely *ase*, meaning ‘leave’,

Unlike the verbs conveying orientational semantics, verbs expressing the manner of motion make up a more numerous group (Table 5):

Table 5. Final stems of (manner of) motion verbs in Cheyenne.

Semantic domain	Final stem
drive a car	<i>-àho'he</i> (FAI)
fly	<i>-e'há</i> (FAI)
go	<i>-ohtsé</i> (FAI)
move	<i>-ohe</i> (FAI)
ride a horse	<i>-a'haso'he</i> (FAI)
run	<i>-méohe</i> (FAI)
run quickly	<i>-a'xe / -ó'ahéotse</i> (FAI)
walk	<i>-(e)hné</i> (FAI)

The following examples illustrate the orientation plus (manner of) motion verb construction in Cheyenne, with the verb expressing the manner of motion appearing before the main verb:

- (15) Ná-ho'-ēhne
 (1)-arrive.I-walk.FAI
 ‘I arrived (by walking).’

- (16) Ná-asé-ēhne
 (1)-leave.I-walk.FAI
 ‘I left (by walking).’

These two initials *ho'* and *asé(t)* place the destination in question as the point of reference, indicating whether the participant has arrived at a particular place or, by contrast, has left it. Nevertheless, they do not contain accurate information about the direction of the action, that is, whether the participant is moving towards or away from the speaker. Thus, when the deictic locus falls on the speaker, these two predicating elements are accompanied by a directional particle such as the cislocative *néh-* ‘towards the point of reference’ and the translocative *ta-* ‘away from the point of reference’ or a phoric particle such as the anaphoric *nè-* and the

cataphoric *tsé-*, which in turn normally occur in combination with the relative preverbs¹⁸ *héše-* and *hét-*:

- (17) Ná-nèx-ho'-ēhne
(1)-CISL-arrive.I-walk.FAI
'I came (by walking).'
- (18) Ná-ta-ho'-ēhne
(1)-TRNSL-arrive.I-walk.FAI
'I went (by walking).'
- (19) Ná-nè-héše-ho'-ēhne
(1)-ANAPH-RR-arrive.I-walk.FAI
'I arrive there (a place old in discourse) (by walking).'
- (20) Ná-tsè-héše-ho'-ēhne
(1)-CATAPH-RR-arrive.I-walk.FAI
'I arrive there (a place new in discourse) (by walking).'

The directional particles are used to express the locational or temporal deixis of the action with respect to the speaker, namely whether the movement is towards the speaker (17) or away from the speaker (18), whereas the phoric particles serve to link elements in a discourse, namely a place old in the discourse (19) or a place new in the discourse (20).

Both orientational and (manner of) motion verbs are intransitive and share the same subject, which allows the whole construction to keep the same valence as that of its forming components. Owing to the fact that argument marking in Cheyenne is realized only once per clause, by means of inflectional suffixes occurring at both sides of the stem-forming elements, it is really difficult to ascertain whether one of the two components functions as the syntactic head or not. However, it is the second predicate that appears to act as the syntactic head of the construction, as is illustrated by the following example where, unlike the first, the second predicate can also be transitive, although, in fact, this is rarely the case:

- | | | |
|------|---------------------------------------|----------------|
| (21) | Ná-ho'-è-hót-o-ho | né-ške'éehe |
| | (1)-arrive.I-come.to.FTA-1:4-SG.A+4.P | my.grandmother |
| | 'I came to my grandmother.' | |

On the other hand, the first predicate, which conveys orientation, serves as the semantic head of this deictic construction since the meaning expressed by the second predicate is limited to encoding the manner of motion, that is, the way in which the action took place so that this information appears to be entirely optional.

3.1.3. *Construction expressing simultaneous actions*

In all languages, constructions expressing simultaneous actions tend to be symmetrical and this is also the case in Cheyenne, since the two stem-forming elements derive from an open class with

¹⁸ Relative preverbs are particles conveying adverbial meanings such as manner, place, etc. They usually relate these ideas to specific words, phrases or even to a clause outside the verbal complex, which function as the antecedents of the relative preverbs.

no apparent restriction in its membership. The following examples illustrate this multi-verb construction type:

- (22) É-é'e'se-non(é)-éhne
(3)-whistle.I-sing.FAI-walk.FAI
'He whistles while walking.'
- (23) É-sé'h-atamaō'o
(3)-wake.up.I-laugh.FAI
'He woke up laughing.' (Fisher et al., 2006: 19)

The fact that this construction has a symmetrical composition and includes two predicates belonging to an open class of verbs and expressing simultaneous action appears to suggest that both elements act as semantic co-heads. Syntactically speaking, it is difficult to determine which predicating element functions as the head since this construction tends to be used with intransitive verbs¹⁹.

3.1.4. Directional construction

Cheyenne has a bi-compositional construction involving the use of a directional initial stem preceding a final stem. Regarding the symmetry of its components, both members appear to belong to a closed category, especially with regard to the first predicate, which comes from the set of verbs expressing direction or path of motion. The second predicate normally comes from one of two different classes of verb, namely those conveying manner of motion and position. Therefore, although this construction would appear to be symmetrical in form, this symmetry is perhaps incomplete, since the first component is chosen from a much more restricted group than the second, bearing out the assumption that the concepts 'symmetrical' and 'asymmetrical' may be better viewed as extremes on a continuum:

Table 6. Initial stems of directional verbs in Cheyenne.

Semantic domain	Initial stem
across	<i>hóxov-</i>
along	<i>am(e)-</i>
around	<i>év- / hóht-/ tóx-</i>
away	<i>ase(t)-</i>
by	<i>o'om-</i>
down	<i>anóhe- / káv(e)-</i>
in(to)	<i>ése- / ést-</i>
on	<i>táho 'k(e)-</i>

¹⁹ Despite the fact that they are less common, it is sometimes possible to find examples where one of the two predicates is transitive:

- E.g.: a) É-xaémén-estsé'tov-o-ho he-mé'oono
(3)-smile.I-speak.to.FTA-3:4-SG.A+4.P his.girlfriend.OBV
'He was smiling while talking to his girlfriend.'
- b) É-mésehe-ehné'tov-o má'xeme
(3)-eat.I-walk.FTA-1:3 apple
'He is eating an apple while walking.'

As we can see, in both cases the syntactic head occupies a different position: in (a) it is the second member and in (b) it is the first. This may be due to the different verb class, since it seems that when the construction requires a posture or motion verb the first predicate acts as the syntactic head; otherwise, the head is always the second member.

out	<i>hóe- / hóest-</i>
over	<i>áv-/ nó'es(t)-</i>
through	<i>sóhp- / són-</i>
under	<i>áhto('h)-</i>
up	<i>e'(e)- / he'am-</i>

The following examples include a directional construction encompassing both verbs of manner of motion (24-25) and verbs of position (26-27):

- (24) Ná-ésts-èhne vééno
(1)-in.I-walk.FAI tent.LOC
'I walked into the tent.'
- (25) Ná-hóe-(o)'áhéotse vééno
(1)-out.I-run.quickly.FAI tent.LOC
'I ran out of the tent quickly.'
- (26) É-hóest-a'hāhtse-no-vò-tse vóho'oeseonòtse
(3)-out.I-throw.FTI-II.P-33.A+II.P-II.P trash
'I threw the rubbish out.'
- (27) Ná-ést-o'tsé-nòtse mòxe'èstóonòtse véhpòxe'èstoova
(1)-in.I-put.FTI-I:II books box.LOC
'I put the books in the box.'

Although both verbs predicate, we might regard the second member as the semantic head, since it provides the primary meaning of the construction. The first predicate only conveys additional information regarding the direction of the participant's action or the new position acquired by an object, so it is not as relevant as the meaning expressed by the second. Likewise, although both verbs share a subject, the different possibilities admitted by each predicate with regard to transitivity appear to favour the second as the syntactic head of the construction. Thus, the second stem-forming element contributes much more to the argument structure of the complex predicate and varies its form according to the transitivity value it encodes and the animacy of the participants involved in the event it expresses (e.g. *-ehné* 'walk' and *-o'áhéotse* 'run quickly' (FAI); *-a'hahtsé* 'throw' and *-o'tsé* 'put' (FTI)).

3.1.5. Instrumental suffix construction

This construction involves a mono-clausal sentence that is asymmetrical in form, since the defining member of the construction, namely the instrumental suffix, comes from a closed or restricted class. The instrumental initial is bound to any open or unrestricted class of verb. Although instrumental affixes could be considered to be synchronically derivational affixes, they appear to have been reconstructed as erstwhile verbs and are, therefore, treated here as a type of multi-verb construction, since the construction shares a number of formal and functional properties with synchronic multi-verb types in other languages:

Table 7. Instrumental final stems in Cheyenne.²⁰

Semantic domain	Final stem
by cold	-ose (FAI), -ohtá (FII)
by cutting	-asó / -esó (FTA), -axá / -exá (FTI)
by hearing	-ahtov (FTA), -ahtá (FTI)
by heat / fire	-ho 'he (FAI), -ho 'tá (FII), -(à)hónó (FTA), -(à)ho 'há (FTI)
by pulling	-eétó (FTA), -eehté (FTI)
by snow	-éená (FTI), -éétó (FII)
by talking	-em (FTA), -éstá (FTI)
by thought (mental or emotional activity)	-átam (FTA), -átehtá (FTI)
by water	-óov (FAI), -óe 'o (FII)
by wind	-ó 'a 'xe (FAI), -ó 'a 'há (FII)
with a tool	-ohnó (FTA), -ohá (FTI)
with the body	-ov (FTA), -a (FTI)
with the foot	-a 'ov (FTA), -a 'á (FTI)
with the hand	-an (FTA), -an (FTI)
with the teeth, by biting	-óm (FTA), -óhtá (FTI)

The following examples illustrate this type of instrumental construction in Cheyenne in which the secondary verb appears as a suffix of the main verb:

- (28) É-šé'še-ān-a má'ome
 (3)-scrape.I-by.hand.FTI-3:I ice
 'He scraped the ice by hand.'
- (29) É-šé'še-nōh-a má'ome
 (3)-scrape.I-by.tool.FTI-3:I ice
 'He scraped the ice with a tool.'

From the evidence provided by the examples given above, it would seem clear that the first predicate is the semantic head, whereas the second only provides a coextensive semantic specification (i.e. instrumental meaning) and, owing to the fact that it is always intransitive, it never changes the core predication. Nevertheless, further complications arise in examples like these:

- (30) É-nāha'-emās-ó-ho
 (3)-catch.I-shoot.FTA-3:4-SG.A+4.P
 'He hit him by shooting.' (Fisher et al., 2006: 164)
- (31) Ná-māhov-ēm-o
 (1)-tired.I-by.talking.FTA-1:3
 'I tired him by (my) speaking.' (Fisher et al. 2006: 27)

In these examples, it is really difficult to decide if the second predicate is really transitive or if, by contrast, it functions in a manner similar to the instrumental finals in (28) and (29). Although they are different with respect to transitivity, it is clear that these forms are determined by the transitivity value of the first predicate, so they do not make the second predicate transitive. It is

²⁰ For a more comprehensive list, see Leman (1980b: 157)

possible that the reason my native consultants tend to favour a causative interpretation for (30) ‘He shot him and, by means of this action, the latter got caught’, which would imply a shared argument (the subject of the first verb and the object of the second), or the manner interpretation for (31) ‘I talked to him very tiredly’, would seem to indicate that we are dealing with two different constructions here. This would indicate that it is, indeed, the second predicate that serves as the semantic and syntactic head in the new type of verb sequence illustrated in (30) and (31).

3.1.6. *Instrumental infix and suffix construction*

Another type of instrumental construction is one in which the complex predicate is composed of up to three predicating elements: an initial element, an intervening element called a medial, and a final element denoting the instrument with which the action is performed. Thus, except for the first member, which presents no restriction in terms of its verb class, both the medial and final elements come from a restricted set of verbs, which is, in turn, reflective of the asymmetrical composition of this tripartite construction.

Medials are noun-like predicating elements conveying different meanings and are classified into several groups according to meaning (e.g. family members, possession, body parts, etc.). One of the largest groups of medials includes body parts. Thus, many verbs that describe or, in some way, involve a part of the body contain a medial that refers to that part of the body:

Table 8. Body-part medials in Cheyenne.²¹

Semantic domain	Medial stem
arm	-na'evá-
back	-pa'oná
body	-ve'tová-
chin	-htóo'oná-
ear	-éstá-
eye	-'exané-
face	-éné-
finger	-(hk)osé- / -škosé-
foot	-hahtá-
hand	-he'oná-
head	-htséá- / -a'é- / -a'eše- / -a'(k)é-
knee	-nestané-
leg	-(hk)óhtá-
mouth	-ahtse(ná)-
nose	-esé-
stomach	-asé- / -ohta- / -óme-
tooth	-onené-

The following examples illustrate this second type of instrumental construction in Cheyenne, with the predicating element denoting the body part appearing as an infix to the main verb and being followed by the instrumental suffix:

²¹ For a more comprehensive list, see Leman (1980b: 163-164)

- (33) É-pón-ásé-(a)'ov-o-ho
 (3)-hit.I-belly.M-by.foot.FTA-3:4-SG.A+4.P
 'He kicked him in the belly.'
- (34) É-pó-htséá-(a)'ov-o-ho
 (3)-hit.I-head.M-by.foot.FTA-3:4-SG.A+4.P
 'He kicked him in the head.'

It seems clear that the first predicate serves as both the syntactic and semantic head of the construction owing to the fact that it provides the core predication, even though its morphological form does not adapt to the transitivity of the resulting complex predicate. The two other predicating elements, namely the medial and final, only provide coextensive semantics conveying the concepts of target and instrument of action.

3.1.7. *Aspectual construction*

Cheyenne also makes use of a primary verb construction in order to express a wide variety of aspectual considerations. In this type of bipartite and asymmetrical verb combination, the element providing the aspectual meaning always occurs in the form of an initial stem, being then complemented by the final stem of a verb, which serves as both the syntactic and semantic head of the construction, since it not only determines the argument structure of the whole construction, but also provides its primary meaning:

a) *Ingressive aspect*

- (35) É-asét-otse'ohe éšeēva
 (3)-start.I-work.FAI yesterday
 'He started working yesterday.'

b) *Egressive aspect*

- (36) É-má't-otse'ohe háne éšeēva
 (3)-finish.I-work.FAI DEIC yesterday
 'He finished working the day before yesterday.'
- (37) É-én(e)-áhá'éne hétsetseha
 (3)-end.I -cook.FAI now
 'He stopped cooking now.'

c) *Continuative aspect*

- (38) É-sés-enome
 (3)-remain.I-sleep.FAI
 'He remained sleeping.'

d) *Progressive aspect*

- (39) Nómòse é-am(e)²²-a'xan(e)
all.the.time (3)-continue.I-cry.FAI
'He is crying all the time.'

e) *Conative imperfective aspect*

- (40) Ná-onést-aha'ene nèhestoha oéšēēva
(1)-try.I-cook.FAI every.time daily.LOC
'I learn to cook every day.' (lit. 'I practice cooking every day.')

3.1.8. *Modal construction*

A primary verb construction type is also used in Cheyenne to express modal meanings. The following examples illustrate bipartite constructions with an asymmetrical composition where the second predicate also acts as the syntactic head of the clause since it determines its argument structure:

a) *Obligation*

- (41) É-hestom-sé'-áho'he
(3)-avoid.I-into.I -drive.FAI
'He avoids driving to town.'

In this example, the second predicate appears to act as the semantic head, since the first predication element only provides a modal specification (e.g. obligation, command, purpose, etc.), which should be regarded as secondary in terms of the semantic content it conveys.

b) *Command* (Directive modality)

- (42) Ná-he'ame-neenáhn-o
(1)-up.I-command.FTA-1:3
'I commanded him to go up.'

This example including a final to express directive modality could be regarded as an exception with respect to other types of modal construction, since the predication element providing the modal specification occurs in second position. Regarding semantic headedness, it is the first verb that appears to function as the semantic head owing to the meaning it conveys, since the second only appears to express secondary (modal) information. Furthermore, the second predicate determines the transitivity of the whole complex predicate because the first predication element can only be intransitive.

²² Despite the fact that the predication element *ame-* more commonly acts as an initial stem that, together with a final stem, forms a multi-partite verb, it is also possible to find examples where it precedes a full verb, which would indicate that it behaves as a preverbal particle rather than an initial stem:

E.g.: Ná-ame-táhoo'e
(1)-along.I-ride.VAI
'I am riding.'

c) *Urging* (Hortative modality)

- (43) É-nonótové-vám-ó-ho
(3)-be.fast.I-urge.FTA-3:4- SG.A +4.P
'He urged him to be fast.' (Fisher et al., 2006: 292)

This example of hortative modality resembles the former, expressing direct modality semantically in that the first predicate, which belongs to an open class, appears to have a more relevant semantic status than the second, the modal component chosen from a closed set. This construction also shows the restriction regarding transitivity for the first predicate, which must always be intransitive.

3.1.9. *Comitative construction*

The comitative construction in Cheyenne is very interesting from a syntactic point of view since it is an instance of a valence-increasing construction whereby the initial stem *vés(e)-* / *vest-* is preposed to the main verb, namely the semantic head, over which it operates, acting as an applicative:

- | | | | |
|------|------------------------------------|---------------|--------------|
| (44) | Ná-vést-(o)o'em-ó-ho | nésé'e | na-máhéone |
| | (1)-with.I-sit.FTA-1:4-SG.A+4.P | my.friend.OBV | my-house.LOC |
| | 'I am with my friend in my house.' | | |

In this asymmetrical bipartite construction, the applicative suffix *vés(e)-* / *vest-* could be seen to be operating only over the second predicate, namely the semantic head of the construction, by including an extra participant, represented by the peripheral referential phrase *nésé'e* 'my friend', and forming the core argument structure of the main predicate, thereby increasing the valence of the predicate by one. Thus, two verbs such as 'sleep' and 'sit', which are intrinsically intransitive, appear in the form of a transitive final followed by an inflectional suffix and now providing syntactic information concerning two core arguments: a first person subject and an obviated element now acting as the object of the clause. Consequently, it would seem that both stems function as syntactic co-heads as they both contribute to the argument structure of the predicate.

3.1.10. *Cause-effect construction*

Cheyenne also expresses the semantic relationship of cause and effect by means of a primary verb construction type. This bipartite construction is symmetrical in composition since it has no restriction on the verb class to which its members can belong:

- (45) É-tó'om-émas-ó-ho
(3)-stiff.I-shoot.FTA-3:4-SG.A+4.P
'He shot him dead stiff.' (Fisher et al., 2006: 27)
- (46) Ná-sòséve-nōt-o
(1)-tired.I-kill. FTA-1:3
'I beat him until he was tired out.' (Fisher et al., 2006: 206)

In these sentences, which could be paraphrased as ‘He shot him and, as a result of this, he became stiff’, and ‘I beat him and, as a result of this, he became tired out.’ contain an argument that is shared by the two predating elements functioning as the object of the second verb and the subject of the first. Despite the general claim that the components of symmetrical constructions have equal syntactic (as well as semantic) status, in these examples it seems clear that the second verb appears to act as the syntactic head, since it seems to determine the overall valence of the complex predicate. On the other hand, both predicates appear to contribute to the core predication to a similar degree, so that they function as semantic co-heads.

Nevertheless, I have found a number of other examples of this construction that show a different positioning of the two predicates expressing cause and effect:

- (47) Né-ta-nóhtsè²³-hot-one Ma’heo’o
 (2)-HORT-seek.I-come.to.FTA-12:3 God
 ‘Let us seek and come near God!’ (Fisher et al., 2006: 22)

This example, which could be paraphrased as ‘Let’s seek God and, as a result of this, we will come near him’, contains two predicates, such as *nóhts(e)*- ‘seek’ and *-ehót* ‘come to someone’, which also combine to form one single meaning. The point is that the first stem (i.e. the causal verb) occurs before the final stem (the effect verb). Despite this difference, the latter example seems to be more common crosslinguistically speaking, since the order of the components of the cause-effect construction is iconic in the sense that the verb expressing causation precedes the verb expressing result, imitating the order in which events occur.

3.1.11. *Purposive construction*

Although this seems to be a rather frequent construction type, Cheyenne appears to make use of a bipartite construction, symmetrical in form, in order to express the concept of purpose:

- (48) É-nomáhts-é’hāna
 (3)-steal.I-eat.FAI
 ‘He stole something to eat.’ (Fisher et al., 2006: 200)

In this construction where the actions acquire a consecutive interpretation, both predicates appear to act as syntactic and semantic co-heads, since they both contribute to the meaning expressed by the whole complex predicate and also serve to determine the overall valence of the construction. The order of components is iconic since it follows the temporal sequence of the sub-events, which confirms the close relationship between sequential and purpose constructions.

3.1.12. *Construction expressing sequence of actions or concomitant actions*

Although it does not seem to be a productive construction type either, it is possible to express a sequence of actions through a primary verb construction. This bipartite combination includes two

²³ It is also possible to find examples including the predating element *nóhtse*- where it precedes a full verb, which indicates that it is as a preverbal particle:

E.g.: É-nóhtsé-voom-o-ho
 (3)-seek-see.VTA-3:4-SG.A+4.P
 ‘He searched for him and saw him.’ (Fisher et al., 2006: 195)

Unlike the meaning expressed in (60), the construction illustrated in this example appears to imply a concatenation of sequential actions.

(49) Mó-h-ma'xe-móhee- hót-ae-he-vovó-he nótaxé-vé'hó'e
CLM²⁴-a lot-gather.I-come.to.FTA-33:4-NEG-33.A+4.P-EVID soldiers

Here the second predicate appears to determine the overall valence of the clause so it serves as the syntactic head. Semantically speaking, both predicates appear to have the same status, and could, thus, be considered semantic co-heads.

Although it does not seem to be as productive as the primary verb construction or, at least, is much less frequently documented, it is possible to see instances of what is commonly known as the secondary verb construction. In Cheyenne, a secondary verb construction involves an asymmetrical multi-verb sequence composed of a dependent verb - a member of a restricted set of verbs - that follows the main verb, which in turn acts as a member of an open class and represents the semantic head of the construction. Unlike the primary verb construction, whose identifiable components cannot themselves constitute a word stem, here only one of the elements -- namely the first verb -- can stand on its own to form an independent predicate. As a result, the final stem, which functions as the secondary predicate, needs an additional verb for which it provides semantic modification in terms of cause, benefit, volition or process.

The causative construction in Cheyenne involves the addition of a final stem, mainly *'seh*, following a primary stem, indicating that this main verb functions as the semantic head of the construction:

As we can see, the order of the predicate components is not iconic since the verb of result comes before the verb of causation, reversing the order in which events unfold. In this example of an object control construction where the shared argument functions as the subject of the first verb and the object of the second, this final stem acts as an applicative suffix operating over the main verb by increasing the valence of the argument structure by one (e.g. from monotransitive to ditransitive in (50)). Thus, in this valence-increasing construction, the overall argument structure represents the sum of the arguments of its components and, as a result, is more complex than either of its components. We should note that the first predicate does not change its form with respect to the transitivity or the animacy of the participant(s) involved in the event. This would appear to indicate that both predicating elements function as syntactic co-heads. As we might

²⁵ *Tsé-tó'hovane* is a clause in the Conjunct Order that literally means 'that which is in between'.

expect, grammatical information regarding transitivity and animacy occurs in the form of a suffix after the causative final stem.

3.2.2. Benefactive construction

This construction functions like the previous one; it contains a causative verb, in the sense that it is a valence-increasing mechanism. In terms of its composition, the final stem *-(v)omotah*, which has a benefactive meaning, also follows a main verb serving as the semantic head:

- (51) Ná-háoena-vomotāh-o
 (1)-pray.VAI-BEN.FTA-1:3
 'I prayed for him.'

As in (50), the first predicate does not modify its morphological form in order to adapt to the transitivity value of the complex predicate, despite the fact that the final stem functions as an applicative suffix increasing the valence of the first predicate by means of the addition of the role of beneficiary, thereby implying that the overall argument structure is more complex than that of its components. This construction therefore shows a fused argument structure where both predicates function as syntactic co-heads.

3.2.3. Desiderative construction

Cheyenne realizes the desiderative construction through a secondary verb construction type. As in the causative and benefactive constructions, a final stem -- in this case *'tanó* a predicating element providing modal specification (i.e. volition) -- follows a full verb, which serves as the semantic head in that it provides the primary meaning of the construction.

- (52) Ná-vóoht-a-tanó'tá he-máhēō'o
 (1)-see.VTI-LINK²⁶-want.FTI his-house
 'I want to see his house.'
- (53) Ná-vóom-a-tanó'tov-o-ho nésenóho
 (1)-see.VTA-LINK-want.FTA-3:4-SG.A+4.P my.friend.OBV
 hoxéhe-omē-'e
 Sun.Dance-lodge-LOC
 'I want to see my friend at the Sun Dance.'

²⁶ This construction is also very interesting from a morphological point of view because it presents a kind of linker between the two predicating elements. This morpheme has probably been added for phonological reasons, since it does not appear to indicate any dependency relation. However, based on the comparison made between the following examples, I dare to hypothesize that this linker might also function as a switch-reference marker, although this assumption definitely requires further investigation:

- E.g.: a) Né-véstáhém-a-tanó'tov-átse -> ('want') subject = ('help') subject : same subject
 (2)-help.TA-LINK-want.TA-1:2
 'I want to help you.'
- b) Ná-véstáhém-a-tanó'tov-ähtsé -> ('want') subject = ('help') subject : same subject
 (1)-help.TA-LINK-want.TA-1:1
 'I want to help myself.'
- c) Ná-véstáhém-ähtsé-táno -> ('want') subject ≠ ('help') subject : different subject
 (1)-help.TA-LINK-want.AI
 'I want to be helped.'

Although it resembles the causative construction (and the benefactive construction), this desiderative construction has an important structural difference. In this case, we have an example of a subject control construction where both predicates share the subject, but the final *-tanó* does not predicate and, consequently, does not increase the valence of the predicate. We should note, furthermore, that the transitivity matching exhibited by the first predicate not only determines the overall valence of the clause, but also expresses an independent marking of transitivity as well as the person and animacy of the core arguments. The grammatical information regarding transitivity is, therefore, double marked²⁷, firstly, in the main verb and, secondly, at the right end of the verbal complex by means of the inflectional suffix (i.e. *-Ø* (FAI), *-’tá* (FTI), and *-’tov* (FTA)). This seems to be enough evidence for us to claim that, in this construction, the first predicate functions as the head both semantically and syntactically.

3.2.4. *Process construction*

Finally, the last example of a secondary verb construction is illustrated by a verb sequence including a main verb followed by a final stem, namely *-otse* “become”, which conveys the idea of process:

- (54) Ná-méo-háomóhtahe-otse
 (1)-early-be.sick.VAI-become.FAI
 ‘I became sick in the morning.’

As both stems involved in this construction are intransitive, it is difficult to ascertain which constituent acts as the syntactic head, so maybe it would be more accurate to argue that both act as syntactic co-heads. By contrast, semantically speaking, it seems clear which of the two predicating elements functions as the head since the first provides the primary meaning and the second only expresses an aspectual consideration.

3.3. *Compound verb construction*

In addition to primary and secondary verb constructions, another type of complex predicate construction, quite well attested in Cheyenne, concerns what I will refer to as the compound verb construction. This type of complex predicate is formed by the addition of a word- or root-like prefix (e.g. a preverb or a prenoun) attached to an independent verb stem. The first element of the compound modifies the verb stem to which it is added by providing a wide range of semantic specifications such as motion, possession and a number of aspectual and modal distinctions. Given that preverbal particles in Cheyenne are semantically very similar to initial stems - both predicating elements are able to express similar aspectual and modal specifications - and that sometimes the morphological form of the preverb, the initial stem and the independent verb coincide, it is sometimes very difficult to distinguish between these forms²⁸ and, consequently, to determine which type of multi-verb construction is involved.

²⁷ By this expression I do not mean that this construction shows concordant marking, since I consider inflectional suffixes such as *-’ta* or *-’tov* to mark grammatical information on the whole complex predicate, rather than on the second verbal constituent.

²⁸ The same element can sometimes function as a preverb or initial, as is illustrated by the examples included in footnotes 22, 23 and 29 as well as in subsections 3.1.2, 3.3.2. and 3.3.5. Furthermore, it is sometimes even possible to find the same morphological form functioning as a preverb and initial in the same clause:

E.g.: a) É-nèx-ho’-(h)è-ho’-òhtse
 (3)-CISL-arrive-PURP-arrive.I-go.FAI
 ‘He came here to visit.’

3.3.1. Construction expressing orientation plus purpose

Cheyenne makes use of a compound verb construction to express an action involving a movement that is realized with a specific purpose. This verb sequence has an asymmetrical configuration, since a verb from an open class always occurs following the preverbal particle *hé-*, conveying the idea of purpose or finality, and therefore contributing with coextensive semantic content to the meaning expressed by the independent verb, which functions as the semantic head:

- (55) *É-hé-(h)estan-á* *héstáme*
 (3)-PURP-take.VTI-3:I his.food
 ‘He arrived in order to get his food.’

The fact that the presence of the preverb *hé-* does not specify the orientation of the movement by itself makes the addition of a directional particle (sometimes also accompanied by a phoric particle) almost obligatory:

- (56) *É-néx-hé-(h)éstan-á* *héstáme*
 (3)-CISL-PURP-take.VTI-3:I his.food
 ‘He came to get his food from there.’
 (57) *É-tà-hé-(h)éstan-á* *héstáme*
 (3)-TRNSL-PURP-take.VTI-3:I his.food
 ‘He went to get his food from there’

Both the preverb and the independent verb contribute to the argument structure of the clause and even share the subject of the clause. However, the fact that the second predicating element, *héstán-* ‘take / get something or someone from there’, modifies its form with respect to variations in terms of the transitivity and animacy of the participants involved appears to suggest that it acts as the syntactic head:

- (58) *É-néx-hé-(h)éstan-ó-ho* *mó’kèsa’éhesono*
 (3)-CISL-PURP-take.VTA-3:4-SG.A+4.P little.calf.OBV
 ‘He came to get the calf.’

3.3.2. Construction expressing sequence of actions or concomitant actions

Apart from functioning as an initial (examples (15-21)), the orientational elements *ho’-* ‘arrive’ and *ase(t)-* ‘leave’ can also occur as a preverb, preceding a full verb in a construction expressing associated motion or sequences of subevents conceptualized as one event. In this compositionally asymmetrical construction, the second constituent -- the verb that draws from an open class that is -- serves as the head on both semantic and syntactic grounds, given that preverbs do not alter the argument structure of the clause and the meaning they express, so that the orientation of the movement realized by the participant only provides a modificational specification to the action described by the main predicate. The order of components in this deictic construction matches the temporal order of the actions they denote:

-
- b) *É-tà-ho’-(h)é-ho’-ōhtse*
 (3)-TRNSL-arrive- PURP-arrive.I-go.FAI
 ‘He went there to visit.’

- (59) É-ho'-néméne-o'ó
 (3)-arrive-sing.VAI-33
 'They arrived and sang.'
- (60) É-ase-mésehe
 (3)-leave-eat.VAI-3
 'He left and ate.' (Fisher et al., 2006: 16)

Very often, the difference between the use of the morphemes *ho'*- and *ase(t)*- as either initials or preverbs is not straightforward, so it becomes difficult to delineate the type of multi-verb construction shown by this predicating element. In examples (15-21) in sub-section 3.1.2, it seems clear that these orientational morphemes form a bipartite construction since they are followed by a final stem. This might lead us to suppose that they act as initials. However, in examples (59) and (60), these elements precede a full verb rather than a final stem, indicating that they now behave as preverbs and, consequently, trigger the formation of a compound verb construction. The use of *ho'*- as a preverb also implies the retention of the original categorization that its historical source, the relative preverb **ahkwi*, had in Proto Algonquian (Leman, 1987a: 22).

3.3.3. Possessive construction

Cheyenne uses an asymmetrical compound verb construction in order to express possession. This verb sequence involves the presence of a dependent verb form, namely the particle *he*, which conveys the idea of possession and precedes a nominal stem²⁹:

- (61) Ná-he-ma'tšěšk(e)-ēme
 (1)-have-bow.NI-11
 'We have a bow.'

It is of note, here, that the resulting construction is always intransitive, since the inflectional ending *-ēme* indicates a first person inclusive subject, but not an object. This implies that the prenoun *he*- acts as a kind of light or support verb because of its weak semantic content and because its contribution to the valence of the argument structure of the predicate is not very relevant, so that it requires the presence of an additional predicate. For this reason, on both syntactic and semantic grounds, it would seem plausible that the non-verbal predicate functions as the head of the construction.

²⁹ Cheyenne shows a distinction between verbal and non-verbal predicates. Verbal stems can be made from non-verbal (i.e. nominal, adjectival and adverbial) stems through the addition of various derivational suffixes, such as *-éve* or *-ahe*, which would function as a linking verb:

E.g.: a) Hé'tóhe é-motšěke-(é)ve.
 DEIC (I)-knife.I-FAI
 'This is a knife.'

b) Tá'tóhe mo'éhno'ha é-tšěške'-ahe
 DEIC horse (3)-small.I-FAI
 'That horse is small.'

N.B. while there is a verb in these equative constructions, namely the copula final *-éve* or *-ahe*, which appears in verb-final position, it is just a linking verb that carries grammatical information such as transitivity, person, number, or animacy, but does not convey the main meaning of the sentence by describing the event or situation.

3.3.4. Aspectual construction

Cheyenne not only expresses aspectual considerations through a primary verb construction, as illustrated in subsection 3.1.7., but also by means of a compound verb construction including a dependent verb in the form of a preverb followed by a main verb, which acts as the syntactic and semantic head, because it determines the argument structure of the clause and provides the main meaning. As is illustrated by the following examples, the number of aspectual meanings expressed by means of this construction type is relatively high:

a) *Continuative aspect*

- (62) Ná-něše-némene
(1)-continue-sing.VAI
'I continue singing!'

b) *Ingressive aspect*

- (63) É-osáane-asénoov-ósesto
(3)-begin.sing.honor.song.to.VAI-(1-33)
'He began to sing an honor song for them.' (Fisher et al., 2006:16)

c) *Habitual aspect*

- (64) Ná-ohke-méo-némene
(1)-usually-morning-sing.VAI
'I usually sing in the morning.'
- (65) Ná-méhae-méo-némene
(1)-used.to-morning-sing.VAI
'I used to sing in the morning.'

d) *Prospective aspect*

- (66) Ná-ěše-to'se-mev-o má'xeme
(1)-already-going.to-eat.VTA-1:3 apple
'I am about to eat an apple.'

e) *Conative imperfective aspect*

- (67) Ná-to'se-onése-hohtová kóhkonéhēō'o
(1)-going.to-try-buy.VTI-1:I bread
'I am going to try to buy bread.'

f) *Perfective aspect*

- (68) Ná-ěše-něše'han-a-nò-tse hetóhkonótse
(1)-finish-wash.VTI-1:II-II.P-II-P dishes
'I just washed the dishes.'

3.3.5. Modal construction

As with the expression of aspectual distinctions, Cheyenne also conveys modality by means of two different constructions. Apart from using primary verb constructions, which serve to indicate obligation, command, or purpose, among other modal distinctions, it also makes use of compound verb constructions in order to convey the concepts of ability, incapacity, willingness, preference and fear. In this type of verb sequence, the first predicating element, namely the modal preverb, only appears to contribute to the secondary meaning and does not alter the argument structure of the clause, so it is, in fact, the second constituent of the construction that functions as the semantic and syntactic head:

a) *Ability*

- (69) É-nòhtóve-pèhévé-òhomó'he
(3)-know.how-well.I-dance.FAI
'He knows how to dance well.'

b) *Obligation*

- (70) Né-to'se-vovóhpone-ono'átam-o-o'ó ma'háhkèseho
(2)-going.to-strict-respect.VTA-DIR-22:33 elderly.people
'You have to respect elderly people.'

c) *Capacity*

- (71) É-oto'xove-nèhešévé
(3)-skillfully-do.that.VAI
'He can do that.' (Petter, 1915: 208)
- (72) Ná-e'tse-évaotsé'tov-o-ho hestónaho
(1)-fail-greet.VTA-1:4-SG.A+4.P her.daughter.OBV
'I failed to greet her daughter.'
- (73) Ná-hótse³⁰-mée'ahe
(1)-not.succeed-defecate.VAI
'I cannot defecate.'

d) *Willingness*

- (74) É-máseme-naóotse
(3)-feel.like-sleep.VAI
'He feels like sleeping.'

³⁰ It is also possible to find examples where *hótse*- functions as an initial stem:

E.g.: É-hóts(e)-enome
(3)-not.succeed.I-sleep.FAI
'He cannot sleep.' (Fisher et al., 2006: 107)

e) *Preference*

- (75) É-hohame-sé'-a'haso'he
(3)-prefer-into.I-ride.a.horse.FAI
'He prefers to ride to town on horse.'

f) *Fear*

- (76) Na-é'se-néšoesem-o
(1)-afraid.tell.off.VTA-1:3
'I was afraid to tell him off.'

Finally, after having examined the morpho-syntactic and semantic properties of the compound verb construction, we should conclude this subsection by highlighting a further complication arising as a result of the analysis of a compound verb construction. As regards the question of wordhood, preverbs sometimes also resemble independent word stems, especially non-verbal (e.g. *pó'èho* 'he explode', *naa'é* 'be a doctor', *nóhone* 'five'), a fact that complicates the task of determining whether only one constituent of a compound verb construction or both can constitute an independent predicate. If the second hypothesis is correct, then these compound verb constructions would appear somehow to fit within the serial verb construction typology in that they are composed of two predicates that act as a single predicate, represent a single event, are intonationally monoclausal, present no marker of coordination, subordination, or any other kind of syntactic dependency and are able to occur as independent verbs (Aikhenvald and Dixon, 2006:1)³¹.

Although it seems clear that Cheyenne makes widespread use of affixes to cover all the semantic functions for which multi-verb constructions are used, a fact that implies the possible absence of verb serialization, I have found an example that could well be classified as an instance of a serial verb construction and could therefore constitute a counter-example to de Reuse (2006: 316-317)'s suggestion that highly polysynthetic languages do not make use of this type of construction because they use affixation:

- (77) É-amáho'hé-evo'soo'e
(3)-drive.VAI-play.VAI
'He is playing with (toy) cars.' (Fisher et al., 2006: 8)

Differentiating a serial verb construction from other types of multi-verb construction is not always an easy task and this is especially evident in Cheyenne, where the most serious complication concerns the distinction between lexical and functional verbs, which have a grammatical rather than a lexical meaning. The multi-verb construction in (77) consists of two full verbs that are independent in the sense that they must be able to occur on their own without another verb, are fully lexical verbs³² on their own (i.e. they do not express any aspectual or modal distinction), have the same values in terms of tense, mood and aspect, and no linker can intervene between them. If we take all these features into consideration, it does not seem

³¹ Serial verb constructions forming one single word have been traditionally referred to by many different denominations, such as 'nuclear serial verb constructions', 'verb compounding' or 'root-serialization' (Foley and Olson, 1985).

³² Haspelmath (2015: 12-13) argues that, although it is rarely mentioned in the literature, the independent-verb criterion is a necessary component of the definition of the concept of serial verb construction in order to avoid classifying a large number of auxiliary constructions within this type of multi-verb construction.

unreasonable to cite this example as an instance of serial verb construction³³. Anyway, this type of multi-verb sequence is comparatively rare and does not seem to be formed productively in Cheyenne. It may be that this is a recent innovation in a language in which multi-verb constructions tend to be made up by full verbs rather than stem-forming elements or preverbs.

3.4. *Mixed constructions*

Finally, owing to the recursiveness of both preverbal particles and initial stems, it is also possible to find instances of mixed constructions:

3.4.1. *Primary + secondary verb construction*

- (78) É-onést-oestóne-’séh-ó-ho
 (3)-try-read.I-CAUS.FTA-3:4-SG.A+4.P
 ‘He tested him in reading.’ (Fisher et al., 2006: 224)

This mixed construction appears to have the causative element *’séh-* as its syntactic head and the initial *oestóne-* ‘read’ as its semantic head.

3.4.2. *Compound + secondary verb construction*

- (79) É-he-éhamé-táno
 (3)-have-husband.NA-want.FAI
 ‘She wants to have a husband.’

The nominal stem *éhamé* ‘husband’ acts as the syntactic and semantic head of the clause.

3.4.3. *Compound + primary verb construction*

- (80) É-òhke-évè-he’po-oo’e
 (3)-usually-about-smoke.I-sit.FAI
 ‘He would sit and smoke.’ (Fisher et al., 2006: 60)

The semantic head of this construction is the initial stem *he’po* ‘smoke’ and the syntactic head is the posture verb *-oo’e* ‘sit’.

4. Summary

As we have seen in this paper, Cheyenne has a large number of constructions including two (or more) predicated elements, which vary their form and combine to make up one single clause, conceptualizing a single event. This resulting complex event is expressed by more than one predicate, forming one contiguous prosodic structure where each verbal component plays its part and, depending on its form, position, and meaning, adopts a more grammatical or more lexical function.

Multi-verb constructions thus fall mainly within three different types of compound: the primary verb construction, the secondary verb construction and the compound verb construction. The three types of verb sequences form mono-clausal sentences, most of them asymmetrical in terms

³³ Other potential counter-examples to de Reuse’s assumption have been provided by other scholars such as Zavala (2006), Coupe (2008), Epps (2008), or Guillaume (2008).

of composition, since their defining member comes from a closed or restricted class that is bound to any of an open or unrestricted class of verb. The only examples of symmetrical constructions are the construction types expressing the meanings of cause-effect and purpose.

These multi-verb combinations vary in Cheyenne along at least two broad analytical dimensions (Table 9 in Appendix): firstly, morpho-syntactically, in terms of how the predicating elements combine to form the complex predicate and the way that they affect the argument structure of the whole construction, and, secondly, semantically, in terms of how every component contributes to the meaning of the whole event. It is, likewise, important to highlight the differences displayed by the three types of construction in terms of the historical source of the stem-forming elements in primary verb constructions, the finals in secondary verb constructions and the preverbs in compound verb constructions as well as the paths of grammaticalization followed by these morphemes during the course of their historical development, as we can see in the use of some elements (e.g. *ho'* - or *onése / onést-*) as either preverbs or initials with slightly different semantic connotations.

Although an important issue regarding the classification of multi-verb constructions in Cheyenne is the possibility of finding a correlation between the type of compound involved and the semantics of the construction, as might be expected from a functionalist point of view, unfortunately, I have not been able to find many correlations or, at least, they are not clear to me. As expected, the different multi-verb constructions in Cheyenne are functionally analogous and even share a number of syntactic, semantic and structural features, possibly suggestive of a historical link between them. It is, for example, of particular note that two types of compound -- namely primary verb constructions and compound verb constructions -- can both denote sequences of actions as well as aspectual and modal distinctions. However, none of these coincidences would appear to indicate the existence of a complementary distribution of meanings between construction types. Examples include some aspectual meanings - continuative, conative imperfective and ingressive - that can be realized through both a primary verb construction and a compound verb construction.

On a more detailed level, an interesting correspondence appears to emerge, however: in the three types of multi-verb construction, most of the examples show an interesting correlation between semantic headedness, not so much syntactic headedness, and type of word class, whereby predicates chosen from an open class mostly serve as semantic heads. The open-class predicate provides the primary semantic content of the event described by the complex predicate and the closed-class predicate merely limits itself to representing a further development of the action expressed by the former. Aside from this correlation, it is also worth noting that, unlike symmetrical constructions, asymmetrical verb sequences tend to be headed. Thus, whereas secondary verb constructions are semantically left-headed, compound verb constructions are right-headed. Primary verb constructions also seem to support the aforementioned correlation between semantic headedness and the type of predicate in terms of word class but show a greater variability as regards the selection of the syntactic head of the sequence. Finally, we should highlight the fact that there is also variation as to their respective positioning between the major and the minor verbs (i.e. predicates from an open and closed class respectively) in the sense that a verb from a closed class may precede or follow one from an open class, depending on the construction type. This fact appears to be linked to the composition of each construction, since the majority of multi-verb constructions in Cheyenne are asymmetrical, thus confirming the assumption that the order of components in asymmetrical complex predicates is not necessarily iconic.

5. Conclusion

Multi-verb constructions are a prominent feature in Cheyenne. It is possible to classify Cheyenne multi-verb sequences into three different types, namely primary verb constructions, secondary verb constructions, and compound verb constructions, despite the large number of functional and structural properties shared by all examples of complex predicates in this language, the fact that multi-verb constructions of different types can even be combined, and the confusion between preverbs and initial stems (e.g. *am(e)-* ‘continue’, *ho’* ‘arrive’, *hótse* ‘not succeed’, *nóhtse-* ‘seek’, or *onése/onést-* ‘try’), preverbs and independent word stems (e.g. *pó’èho’he* ‘explode’, *naa’é* ‘be a doctor’, *nóhone* ‘five’), and initials and full verbs (e.g. *mésehe* ‘eat’ or *némené* ‘sing’). The main distinguishing factor between these three construction types is related to the form of the complex predicate. This is closely linked to the issue of wordhood and, depending on the form of the constituents of every construction, they may show full syntactic independency or different degrees of dependency on a main predicate. This variation would appear to indicate a common historical source for all of them and is, therefore, also relevant to the historical setting of Cheyenne multi-verb constructions. The functional and structural similarities displayed by multi-verb constructions in Cheyenne also justify their consideration within a multi-dimensional continuum where each type of verb sequence occupies a different place, with more cohesive and tightly-knit verbal structures, illustrated by primary verb constructions, at one end, relatively tightly-bound verb sequences, displayed by secondary verb constructions, in the middle, and less cohesive and slightly tightly-knit verb combinations, exhibited by compound verb constructions, at the other. This continuum may also show a possible pathway for the diachronic development of a kind of serial verb construction from a primary verb construction, via, firstly, a secondary verb construction and, secondly, a compound verb construction. The dearth of serial verb constructions is perhaps indicative of the direction taken by a grammatical cline that reflects the following stages: morphologization → auxiliatization → serialization.

On the other hand, the results obtained in this paper would seem to support de Reuse’s assumption that Algonquian languages appear to have little verb serialization. This is possibly due to their polysynthetic nature (Aikhenvald and Dixon, 2006: 53), which allows them to make use of a great number of affixes in order to carry out all the semantic functions that serial verb constructions normally realize in other less synthetic languages.

Finally, it should be noted that, despite the large number of examples, the analysis of multi-verb constructions carried out in this paper may not be exhaustive and, consequently, there might be further types of verb sequences that are not dealt with here. I recognize, therefore, that there is still much to be learnt about the derivational processes dealing with stem formation in Cheyenne. This is especially true of its verbal morphology, which requires further analysis that would enable us to glean a more profound knowledge of the inventory of stem-forming elements as well as their patterns of arrangement, meanings and historical sources, and to understand how transitivity affects their morphological form and that of the whole complex construction. Consequently, this study of Cheyenne multi-verb constructions is just a beginning and is intended primarily to lay the foundations for further work on this Native American language and introduce the reader to one way of looking at its verbal stem formation and the syntactic and semantic properties of the elements involved in its composition.

APPENDIX

Table 9: Typology of multi-verb constructions in Cheyenne.

A) Primary verb construction (Type of P/C and semantics)	Formation and Transitivity of components	Composition	Constituent order	Syntactic head	Semantic head	Shared argument (s)
- Posture construction - Construction expressing orientation plus manner of motion - Construction expressing simultaneous actions - Directional construction - Instrumental suffix construction - Instrumental infix and suffix construction - Aspectual construction a) Ingressive b) Egressive c) Continuative d) Progressive e) Conative - Modal construction a) Obligation b) Command c) Urging - Conative construction - Cause-effect construction - Purposive construction - Construction expressing sequence of actions	Initial (intr/tr) + final (intr) Initial (intr) + final (intr/ae/ly/tr) Initial (intr/tr) + final (intr/tr) Initial (intr) + final (intr/tr) Initial (intr/tr) + final (intr) Initial (intr/tr) + medial + final (intr)	Asymmetrical Asymmetrical Symmetrical Asymmetrical Asymmetrical Asymmetrical	Open + closed Open + closed Open + open Closed + open? Open + closed Open + closed + closed	Initial Final Both Final Initial Initial	Initial Initial Both Initial Initial Initial	Subject Subject Subject Subject - -
	Initial (intr) + final (intr/tr) Initial (intr) + final (intr/tr) Initial (intr) + final (intr/tr) Initial (intr) + final (intr/tr) Initial (intr) + final (intr/tr)	Asymmetrical Asymmetrical Asymmetrical Asymmetrical Asymmetrical	Closed + open Closed + open Closed + open Closed + open Closed + open	Final Final Final Final Final	Final Final Final Final Final	Subject Subject Subject Subject Subject
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B) Secondary verb construction (Type of SVC and semantics)	Formation	Composition	Constituent order	Syntactic head	Semantic head	
- Causative construction - Benefactive construction - Desiderative construction - Process construction	Full verb (intr/tr) + final (tr) Full verb (intr/tr) + final (tr) Full verb (intr/tr) + final (intr) Full verb (intr) + final (intr)	Asymmetrical Asymmetrical Asymmetrical Asymmetrical	Open + closed Open + closed Open + closed Open + closed	Both Both Full verb Both	Full verb Full verb Full verb Full verb	S (I)/O (F) Subject (Subject) Subject
C) Compound verb construction (Type of CVC and semantics)	Formation	Composition	Constituent order	Syntactic head	Semantic head	
- Construction expressing orientation plus purpose - Construction expressing sequence of actions - Possessive construction - Aspectual construction a) Continuative b) Ingressive c) Habitual d) Prospective e) Conative imperfective f) Perfective - Modal construction a) Ability b) Obligation c) Incapacity d) Willingness e) Preference f) Fear	Preverb (intr) + full verb (intr/tr) Preverb (intr) + full verb (intr/tr) Prenoun (intr) + full noun Preverb (intr) + full verb (intr/tr) Preverb (intr) + full verb (intr/tr) Preverb (intr) + full verb (intr/tr) Preverb (intr) + full verb (intr/tr) Preverb (intr) + full verb (intr/tr) Preverb (intr) + full verb (intr/tr) Preverb (tr) + full verb (intr/tr) Preverb (intr) + full verb (intr/tr) Preverb (intr/tr) + full verb (intr/tr) Preverb (tr) + full verb (intr/tr) Preverb (tr) + full verb (intr/tr) Preverb (intr) + full verb (intr/tr)	Asymmetrical Asymmetrical Asymmetrical Asymmetrical Asymmetrical Asymmetrical Asymmetrical Asymmetrical Asymmetrical Asymmetrical Asymmetrical Asymmetrical Asymmetrical Asymmetrical	Closed + open Closed + open Closed + open Closed + open Closed + open Closed + open Closed + open Closed + open Closed + open Closed + open Closed + open Closed + open Closed + open Closed + open	Full verb Full verb Full noun Full verb Full verb Full verb Full verb Full verb Full verb Full verb Full verb Full verb Full verb Full verb	Full verb Full verb Full noun Full verb Full verb Full verb Full verb Full verb Full verb Full verb Full verb Full verb Full verb Full verb	Subject Subject - Subject Subject Subject Subject Subject Subject Subject Subject Subject Subject Subject

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