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A Functional Discourse Grammar account of voice in Plains Algonquian Languages

Abstract: Algonquian languages have always attracted considerable interest due to their rich and complex grammar, and this paper offers an account of voice in Plains Algonquian languages (USA) within the theoretical framework of Functional Discourse Grammar (Hengeveld 2004; Hengeveld and Mackenzie 2006, 2008). One of the main reasons why the study of this grammatical phenomenon seems so interesting is because it concerns every grammatical level (especially, the morphosyntactic, semantic, and pragmatic levels). Thus, the main purpose of the paper is, firstly, to explore the correlation between the pragmatic, semantic, and syntactic properties of a passive-style construction in these Algonquian languages; secondly, I analyse how the Functional Discourse Grammar model represents this interaction; and thirdly, I examine the possible mismatches that arise from the correspondence between levels. Finally, the findings will serve to shed light on whether the Algonquian direct / inverse distinction should be treated in the same manner as the active / passive voice alternation. This theory has been chosen because it is strongly typologically-oriented, concerns both sentence grammar and discourse structure, and, consequently, seems ideally suited to the study of voice in Plains Algonquian languages.

Keywords: Pragmatics-Semantics-Syntax interface, voice, Plains Algonquian languages, Functional Discourse Grammar

1 Introduction

Linguistic theories generally approach the study of the grammar in a given language by treating it as an entity made up of different components (e.g. morphosyntactic, semantic, phonological, pragmatic, etc.), and the analysis of the relations between the different levels of linguistic representation enable us to explain the properties of a large number of grammatical phenomena. The interactions between the different levels are straightforward when there is a correspondence between the syntactic, semantic, and pragmatic properties of the grammatical phenome-

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non in question. However, sometimes, mismatches between levels occur, showing that the mappings between the syntactic, semantic and pragmatic properties are not so obvious, so that a well-founded and fine-grained interface is required to make the levels correspond with each other.

Voice, or diathesis, can be defined as the relationship between the action expressed by a predicate and its arguments. A traditional view of the active / passive distinction (Tesnière 1965; among others) is that there is a choice between two alternative constructions that, being pragmatically conditioned, have the same semantic interpretation. The two semantically equivalent constructions were thus described in terms of a binary active / passive opposition, and traditional grammar – and even generative grammar – assumed that the passive construction was built out of an active construction, which is considered the default or underlying construction. Finally, it was also often suggested that a true passive is only a construction where the patient becomes the subject.

According to Functional Grammar (Dik 1997: 260), to be considered as passive, a construction must express the same predication as an active counterpart, the semantic valency of the predicate in both variants must be identical, and an argument of the potential passive construction must possess the same coding (e.g. positioning, marking, agreement) and behavioural properties (e.g. relativization, formation of constituent questions, reflexivization, reciprocalization, etc.) as another argument in the active construction. These properties are well illustrated in a language like English thanks to the grammatical relation of subject, which involves a neutralization of semantic roles for syntactic purposes. This view underlies the consideration of voice in the Functional Discourse Grammar framework, which analyzes the active and passive alternatives as special operations involving a differential assignment of the Subject function to arguments with different semantic functions (Hengeveld and Mackenzie 2008: 325).

However, the choice between the active and the passive construction is not only determined by syntactic and semantic properties, but also by pragmatic factors, so that syntax, semantics, and pragmatics are involved. Consequently, this grammatical phenomenon may also reveal possible mismatches among the components. Thus, for example, while the agent in an English passive is still a semantic argument of the predicate, the *by*-phrase essentially behaves like a peripheral adjunct rather than an obligatory complement, which consequently leads to a syntax-semantics mismatch, as the syntactic valence of the verb is reduced by one.

This paper attempts to examine transitive constructions in Plains Algonquian languages with the aim of finding a close equivalent to the traditional passive and analyzing it from the perspective of the Functional Discourse Grammar framework. The second section will then offer a brief summary of the most distinctive

grammatical properties of Plains Algonquian languages and a number of different transitive constructions will be explored to ascertain which of these constructions possesses the properties of an English-style passive. Next, in the third section, an analysis of a transitive construction involving a non-local interaction (i.e. a context involving the presence of two third person referents) will allow us to explore and discuss the pragmatic, semantic, and syntactic properties of this construction and reveal mismatches among the different levels from the perspective of the Functional Discourse Grammar approach. Finally, the conclusion will offer a summary of this study's main findings, which will confirm the strong typological orientation of Functional Discourse Grammar and its validity in terms of studying comparable constructions in different languages in a similar way.

2 Plains Algonquian languages

2.1 Typological description

Like the other members of the Algonquian family, Plains Algonquian languages (e.g. Arapaho, Blackfoot, Cheyenne and Gros Ventre) lie on the synthetic side of the morphological typology cline, as they have a high morpheme-to-word ratio, fairly regular morphology, and highly inflected verbal complexes capable of expressing the same information as a whole sentence in English. They are also clear examples of pronominal-argument languages (Jelinek 1984), as they express all the arguments of the predicates in the form of pronominal affixes, with overt lexical reference phrases being mainly reserved for third person participants and, then, only optionally. They are also instances of head-marking languages (Nichols 1986) because all grammatical relations are coded in the verb, which is the head of the clause, rather than in the NPs (although the latter may also exhibit obviative marking and sporadically the instrumental case). Finally, Plains Algonquian languages can be considered discourse-configurational languages (Hale 1983; Jelinek 1984; Kiss 1995), as they display a pragmatically conditioned word order – that is to say, the positioning of the syntactic constituents within clauses appears to be arranged according to their discourse, rather than syntactic or semantic functions.

2.2 Grammatical systems and hierarchies

Algonquian languages have an extremely complex grammatical system, especially regarding the marking of grammatical relations. In these languages, gram-

matical information about the predicate arguments is conveyed by prefixes¹ and suffixes simultaneously, the latter generally being expressed by a portmanteau bound morpheme so that it may not always be possible to separate the information provided by each of the affixes and assign each grammatical function a different affix. Accordingly, the traditional syntactic relations of subject and object do not appear to play an important role in the grammar of these languages.

The grammar of Algonquian languages has traditionally been considered to be structured according to a hierarchical alignment (Mallinson and Blake 1981; Nichols 1992). This means that the morphosyntactic markers cross-referencing the predicate arguments in transitive constructions vary with respect to the position of each argument in terms of two hierarchies, a Person Hierarchy and a Semantic Role Hierarchy, in addition to the proximate / obviative distinction,² in such a way that clauses can be expressed either by using a direct or an inverse construction.³ The combination of these two hierarchies plus the obviative marking enables the direct / inverse system to function as a type of role-indexing alignment that characterizes all person interactions in the transitive paradigm, reflecting the interaction of syntactic, semantic and pragmatic properties, as *we will see below*.

This Person Hierarchy, showing the ranking $2^{\text{nd}} > 1^{\text{st}} > 3^{\text{rd}} > 4^{\text{th}} > \text{I}$, conforms to the universal predominance of speech-act participants over non-speech-act participants, reflected in Silverstein's (1976: 122) Lexical Hierarchy, Givón's (1976: 152) Hierarchy of Topicality, Dixon's (1994: 85) Nominal Hierarchy, and Dik's (2007: 36) Person Hierarchy, since the local participants (i.e. first and second

¹ As will be discussed below, the prefix in Modern Arapaho and Gros Ventre affirmative sentences no longer cross-references an argument.

² The proximate / obviative marking is closely related to the discourse-pragmatic status of every participant within a particular context so that, in contexts including more than one third person referent, the most salient or topical entity is marked as proximate and any other, less prominent, participants are marked as obviative.

³ Different analyses have been proposed for the analysis of theme markers in Algonquian languages. These approaches, such as the full direct / inverse (Wolfart 1973), the symmetrical split (Bloomfield 1946; Goddard 1979; Pentland 1999; among others), the asymmetrical split (Rhodes 1976; Oxford 2014; among others), and the object agreement (Goddard 2007; Oxford 2017), show an evolution in the consideration of theme markers from direct / inverse markers to object agreement markers, in such a way that the first model analyzes the theme markers in all sets as direction markers, the second considers these theme markers of local sets as object agreement and those of the mixed and non-local sets as direction markers, the third considers all the theme markers as object agreement except for that present in the $4 \rightarrow 3$ and $3 \rightarrow 1/2$ forms, and, finally, the most recent model analyzes all the theme markers as object agreement.

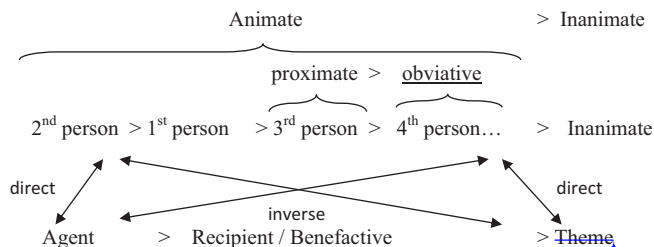


Figure 1: Correlation between the Person Hierarchy, the Semantic Role Hierarchy and the proximate / obviative distinction in Plains Algonquian languages.

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person) are considered to have more pragmatic salience⁴ than the non-local participants (i.e. third and fourth person). Likewise, the Semantic Role Hierarchy – Agent > Recipient / Benefactive > Theme – appears to be determined by the degree of animacy of the participants⁵ that commonly realize such semantic functions and resembles the Thematic Hierarchy outlined by Jackendoff (1972: 43), namely Agent > Source / Location > Theme, and, especially the Semantic Case-Role Hierarchy proposed by Givón (1984: 134), that is to say, Agent > Dative > Patient.

Depending on whether the action expressed by the construction represents an alignment of the two hierarchies or not, we say that the construction is direct (1a) or inverse (1b), which is reflected in a theme marker or direct / inverse marker situated in postverbal position:

- (1)⁶ a. *'ii-ch'i-nüütən-aa'a* *natiʔ áh'a*. Gros Ventre
1-NEG-hear-1SG>3SG⁸ 1SG.POSS-wife
'I don't understand my wife.'
- b. *Natiʔ áh'a* *'ii-ch'i-nüütən-ei?aa?*
1SG.POSS-wife 1-NEG-hear-3SG>1SG
'My wife doesn't understand me.'

⁴ I use pragmatic salience as an equivalent to Aissen's (1999: 468) concept of prominence, that is to say as "a function of inherent semantic features like animacy and pragmatic features such as topicality".

5 The higher-ranking semantic roles such as agent, recipient or beneficiary are linked with animate participants, while the lowest-ranked semantic role, patient, is associated with inanimate participants.

6 The abbreviations used in the glosses of the examples are included in [section 5](#).

7 The symbol '3' in Arapaho and Gros Ventre stands for an interdental fricative consonant sound.

8 Gloss 1SG>3SG should be read as a first person singular agent acting on a third person singular patient.

The sentence in (1a) reports an event including a first person agent and a third person patient and, as it shows the alignment between the Person Hierarchy and the Semantic Role Hierarchy, it is an instance of a direct construction. Example (1b) also expresses a process involving a third person agent and a first person patient. However, it does not show the results expected by the correlation between the two hierarchies and, consequently, it is an example of an inverse construction. As we can see, the direct / inverse system serves to disambiguate the role of the participants and therefore seems to be functionally equivalent to the case marking system in other languages.

Plains Algonquian languages do not have the equivalent of personal pronouns in English, that is to say, free words providing information about the person of the participants involved in the situation denoted by the predicate. Rather, as illustrated by *ʔi-...-aa´a* in (1a) and *ʔi-...-ei´aa?*, they appear as prefixes and suffixes – sometimes bound up in a portmanteau morpheme – that express complementary grammatical information. The theme markers indicating the direction of the construction merge with one or more additional suffixes that complement the prefix, so that the person, number, animacy, semantic role, and salience of each participant are recovered by piecing together information distributed over the prefix, the theme suffix, and the outer suffixes. This confirms that it may be a mistake to consider the prefix and the suffix as corresponding to the semantic roles of agent and patient respectively. Instead, in Plains Algonquian languages these semantic roles are fused in both the pronominal markers, so that the prefix and the suffix must be analyzed jointly:⁹

- (2) a. *No-nóóhob-é3e-n.* Arapaho
 IPFV~see-1SG>2SG-2SG
 ‘I see you.’
- b. *No-nóóhow-ú-n.*
 IPFV~see-2SG>1SG-2SG
 ‘You see me.’
- (3) a. *No-nóóhob-ááá-n´o.* Gros Ventre
 IPFV~see-1SG>2SG-2SG
 ‘I see you.’

⁹ As will be discussed below, the labels direct and inverse have normally been used mostly for the non-local and mixed sets, rather than the local set, due to the difficulty in deciding which of the two forms, namely 1→2 and 2→1, represents the direct or inverse direction. ~~Thus, no indication has been given on the direction of these constructions in these examples involving local configurations, although this information can still be easily deduced from the gloss.~~

- b. *No-nóóhob-ei´aa-n´o.*
IPFV~see-2SG>1SG-2SG
'You see me.'
- (4) a. *Kit-s¹⁰-iino-o.* Blackfoot
2-EP-see-1SG>2SG
'I see you.'
- b. *Kit-s-iino-oki.*
2-EP-see-2SG>1SG
'You see me.'
- (5) a. *Né-vóom-átse.* Cheyenne
2-see-1SG>2SG
'I see you.'
- b. *Né-vóom-e.*
2-see-2SG>1SG
'You see me.'

As evidenced by these instances of local (1↔2) interactions, Plains Algonquian languages behave differently in terms of the way that they code the participants involved in the action. Thus, Arapaho and Gros Ventre appear to mark the grammatical information regarding person, number, and obviation, as well as the direction of the action through two suffixes, whereas Blackfoot and Cheyenne indicate it through both a prefix and a suffix;

Table 1: Comparison of theme and person markers in local contexts.

	2→1				1→2			
	prefix	verb	theme	suffix	prefix	verb	theme	suffix
Arapaho	Ø-	-nóóhob-	-í-	-n	Ø-	-nóóhob-	- éθe-	-n
Gros Ventre	Ø-	-nóóhow-	-ei´aa-	-n´o	Ø-	-nóóhow-	-áá(â)-	-n´o
Blackfoot	Kit(s)-	-iino-	-ok-	-i	Kit(s)-	-iino-	-o-	-Ø
Cheyenne	Né-	-vóom-	-e-	-Ø	Né-	-vóom-	-ât-	-(s)e

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10 An epenthetic sound /s/ is inserted in the middle of the sequence -*ti*-, which cannot occur in Blackfoot (Frantz 1997: 16).

Despite this difference, it is possible to see a correlation between the two systems used for cross-referencing the arguments by pronominal affixes:

- (6) a. *Bííxoo3-e3e'-nee.* Arapaho
 IC¹¹ love-1SG>2SG-2PL
 'I love you (pl.)'
- b. *Bííxoox-ú-nee.*
 IC.love-2SG>1SG-2PL
 'You (pl.) love me.'
- (7) a. *Né-méhot-átsé-me.* Cheyenne
 2-love-1SG>2SG-2PL
 'I love you (pl.)'
- b. *Né-méhox-é-me.*
 2-love-2SG>1SG-2PL
 'You (pl.) love me.'

There is an exact parallel between the two pairs of examples from Arapaho and Cheyenne in (6) and (7), as in both cases an action of a first person agent on a second person patient is indicated by the suffix ~~-atse-~~/~~e3e-~~[▲] and an action involving a second person agent and a first person patient uses the suffix ~~-e-~~/~~u-~~[▲] (underlying ~~-i-~~[▲]). Furthermore, these examples in Arapaho and Cheyenne show that the second person is given prominence over the first person, as it is marked by an additional affix, namely the suffix *-n-* in Arapaho and the prefix *-né-* in Cheyenne, whether the second person is the actor or undergoer. Furthermore, while Arapaho and Gros Ventre do not make use of the prefixes in the affirmative forms of the Independent order, they do appear in the negative forms:

- (8) a. *'eei-ch'i-ni'áaanib-áaa'.* Gros Ventre
 2-NEG-love-1SG>2SG
 'I don't love you.'
- b. *'ééi-ch'i-ni'áaanib-éi'aa'.*
 2-NEG-love-2SG>1SG
 'You don't love me.'

¹¹ Initial change is an inflectional process typical of Algonquian languages whereby the first element of a verbal form is modified to indicate grammatical information such as tense or aspect.

Examples (2–8) therefore confirm that the second person is considered the highest ranking person in terms of the Person Hierarchy in Plains Algonquian, which means that it is regarded as the most prominent person in a local configuration. This will be reflected in the verb in the following way: whenever a second person participant is involved in a clause, regardless of whether it acts as the actor or undergoer, the verb will include a prefix – in Arapaho and Gros Ventre only in negative sentences – indicating the second person.¹²

In summary, mixed (1,2↔3,4) configurations, such as that illustrated by (1), and local configurations show that the speech-act participants (i.e. first and second person) are ranked above third / fourth persons and ultimately above the inanimate. Likewise, local interactions appear to provide important evidence that the second person is given preference over the first, as reflected in the fact that the second person is always cross-referenced by a special prefix or suffix in these contexts.

However, a comparison of the theme markers shows that it is not easy to decide which of the two local persons (i.e. first and second) is given preference in these languages:

Table 2: Theme markers in Plains Algonquian languages.

		Local configuration	Mixed configuration	Non-local configuration
Arapaho	DIR	2→1 <i>-i-/-u-</i>	1/2→3/4 <i>-oo-</i>	3→4 <i>-oo-</i>
	INV	1→2 <i>-e3e-</i>	3/4→1/2 <i>-éí-</i>	4→3 <i>-éí-</i>
Gros Ventre	DIR	2→1 <i>-ei'-</i>	1/2→3/4 <i>-aa/oo-</i>	3→4 <i>-oo-</i>
	INV	1→2 <i>-aa-</i>	3/4→1/2 <i>-ei'-</i>	4→3 <i>-ei-</i>
Blackfoot	DIR	2→1 <i>-ok-</i>	1/2→3/4 <i>-a-</i>	3→4 <i>-(y)ii¹³-</i>
	INV	1→2 <i>-o-</i>	3/4→1/2 <i>-ok-</i>	4→3 <i>-ok-/yii-</i>
Cheyenne	DIR	2→1 <i>-e-</i>	1/2→3/4 <i>-o-</i>	3→4 <i>-o-</i>
	INV	1→2 <i>-at-</i>	3/4→1/2 <i>-a('e)-</i>	4→3 <i>-(a)a'e-</i>


For example, the complex form *bíixoo3-* would consist of two different morphemes: the imperfective marker *-ii-* and the *vta* stem *bixoo3* 'love'.

12 This preference for second person can also be seen in the marking of the inclusive first person plural, which is marked in all Plains Algonquian languages, like the second person plural. Actually, the use of the second person prefix form for the inclusive first person plural holds true for all Algonquian languages so that it may be more appropriate to consider the existence of an inclusive second person plural, rather than an inclusive first person plural.

13 The suffix *-(y)ii* appears to replace the direct theme marker *-a-* in transitive constructions including two third person participants (Frantz 1997: 53).

The 2→1 forms in Gros Ventre and Blackfoot, for example, appear to use the same theme markers as those used in the inverse constructions in the mixed and non-local sets, namely *-ei-* and *-ok-* in Gros Ventre and Blackfoot respectively.¹⁴ This apparent contradiction between the Person hierarchy and the information provided by the direct / inverse markers may be accounted for by arguing that Plains Algonquian languages have historically developed a number of innovations in their morphology, which makes them the least conservative and, consequently, most divergent of the known Algonquian languages.¹⁵ Thus, it seems plausible to consider data provided by Proto-Algonquian and other Algonquian languages in order to find out if theme markers in these languages may be governed by another distinct hierarchy or, by contrast, the description of their alignment system may be described more accurately by using a grammatical category different from direction. Thus, in the recent years, an examination of the conjunct order morphology in Proto-Algonquian has led to the consensus that, while the labels direct and inverse can be useful to describe how transitive constructions work in these languages at present, it is more accurate to view the theme markers as object agreement (Goddard 2007; Oxford 2017), as this analysis appears to reflect their original function more faithfully.

Following this approach, all the theme signs in Proto-Algonquian functioned as object agreement markers and the present-day inverse marker was originally only present in the 4→3 form in the conjunct order and both in the 4→3 and in the 3→1/2 forms in the independent order. However, this morpheme gradually extended to additional forms in both orders:

Table 3: Theme markers across Plains Algonquian languages. 

Verb form	Proto-Algonquian		Arapaho		Gros Ventre		Blackfoot		Cheyenne	
	Ind	Con	Ind	Con	Ind	Con	Ind	Sub ¹⁶	Ind	Con
2→1	*-i-	*-i-	-i/u-	-i/u-	-ei-	-ei-	-ok-	-ok-	-e-	-e-
3→1	*-ekw-	*-i-	-éi-	-éi-	-ei-	-ei-	-ok-	-otsi-	-a(e)-	-a(e)-
3→11	*-ekw-	*-i-	-éi-	-éi-	-ei-	-ei-	-ok-	-ok-	-a [~] e-	-ae-
1→2	*-eθ-	*-eθ-	-e3-	-e3-	-a-	-a-	-o-	-∅-	-ât-	-ât-
3→2	*-ekw-	*-eθ-	-éi-	-éi-	-ei-	-ei-	-ok-	-otsi-	-a(e)-	-at-

¹⁴ More evidence against equating theme markers in local forms to direction markers is provided by Oxford (2014: 57–60)

¹⁵ This may be due to the fact that Arapaho, Gros Ventre, and Cheyenne were some of the first languages to split off Proto-Algonquian and that Blackfoot could probably have been a sister rather than a daughter of Proto-Algonquian (Goddard 2015).

¹⁶ The subjunctive paradigm appears to reflect the Proto-Algonquian conjunct paradigm more accurately in Blackfoot (Oxford 2014).

Table 3 (continued)

Verb form	Proto-Algonquian		Arapaho		Gros Ventre		Blackfoot		Cheyenne	
	Ind	Con	Ind	Con	Ind	Con	Ind	Sub ¹⁶	Ind	Con
3→22	*-ekw-	*-eθ-	-éi-	-éi-	-ei-	-ei-	-ok-	-otsi-	-a´e-	-ae-
1/2→3	*-a-	*-a-	-o-	-o-	-a-	-o-	-a-	-a-	-o-	-o-
4→3	*-ekw-	*-ekw-	-éi-	-éi-	-ei-	-ei-	-ok-	-otsi-	-a´e-	-a´e-
3→4	*-a...e-	*-a-	-o-	-o-	-o-	-o-	-i-	-a-	-o-	-o-

As can be observed in this chart, the Proto-Algonquian theme signs *-i, *-eθ, and *-a always occur in conjunct forms representing a first, second, and third person undergoer (except for 4→3) respectively. Likewise, it is noteworthy that the extension of the inverse marker has taken place across the verbal paradigms of the four Plains Algonquian, changing from being a marker indicating a fourth person argument acting on a third person argument in Proto-Algonquian to becoming a marker that reflects the lack of alignment between the Person Hierarchy and the Semantic Role Hierarchy. An important exception is illustrated by Blackfoot – and possibly by Arapaho and Gros Ventre – where the inverse marker has strikingly become the theme sign in the 2→1 form, reversing this form to inverse.

According to Oxford (2014: 413), the extensive use of the inverse marker in the current verbal paradigms may be accounted for by arguing that, while the prefix (or suffix) – realized on a higher agreement head Infl° – may be able to target either the actor or the undergoer, the theme marker – realized on a lower agreement head Voice° – is able to agree only with the undergoer, and when both markers cross-reference the same argument, namely the undergoer, the inverse marker replaces the original theme marker as a result of a dissimilatory impoverishment operation.

While this more recent model appears to reveal the original function of the theme markers in Proto-Algonquian, making its alignment system more similar to a conventional nominative / accusative alignment than to a hierarchical alignment, the most traditional approach in the literature, namely the full direct / inverse analysis, will be followed in the remainder of the chapter, as it reflects more faithfully the shift in the type of the alignment system that these languages appear to exhibit in their current evolutionary stage, owing to the extension of the inverse marker in non-local, in mixed, and even in local sets.

With this in mind, it is important to note, as discussed above in relation to Table 3, that the hierarchical alignment system does not appear to be governed by this Person Hierarchy reflected in the prefix. Rather, the theme marker, which now appears to indicate the direction of the action, seems to work closely with the interaction of a different Person Hierarchy – as well as the Semantic Role Hierarchy

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chy and the obviation system, obviously –. This second Person Hierarchy, appears to show an increasing trend towards a predominance of the first person over the second in some languages – as illustrated by Blackfoot and Gros Ventre –, thereby conforming to the so-called universal person ranking¹⁷ 1st > 2nd > 3rd > 4th > I.¹⁸

This lack of correlation between the prefixal Person Hierarchy and the suffixal Person Hierarchy¹⁹ in local configurations confirms that there is no reason to connect the information provided by the prefix and the theme marker (and even the suffix). Consequently, it seems convenient to differentiate at least two distinct hierarchies: the prefixal Person Hierarchy governing the choice of a specific person for the prefix (or suffix in Arapaho and Gros Ventre affirmative sentences) and the suffixal Person Hierarchy determining the theme markers that govern the direct / inverse system. We might likewise assume that these two distinct hierarchies are based on different

17 The question of a universal person ranking is debatable, however. A number of scholars (Greenberg 1966; Dixon 1994; Givón 2001; Siewierska 2004; among others) affirm that the universal ranking is first person > second person and other scholars, such as Jakobson (1962), Goddard (1978, 2001), and Junker (2011), think that there is a preference for the first person over the second. However, some authors, such as Silverstein (1976), Dixon (1979), and DeLancey (1981) acknowledge that the relative order between first and second persons varies cross-linguistically, so that it may not be universally hierarchized. As different person hierarchies seem to exist now in Plains Algonquian languages, the wisest thing would perhaps be to posit a universal whereby speech-act participants outrank non-speech-act participants, with the relative ranking of the speech act participants dependent on one or two local hierarchies in specific grammatical contexts.

18 It is also of note that a distinction is found between the suffixes used in local interactions involving plural first and second persons. While Arapaho and Gros Ventre appear to favour second person over first person, Blackfoot and Cheyenne show a preference for the opposite:

	1→2	1→22	11→2	11→22	2→1	2→11	22→1	22→11
Arapaho	-é3en (sg)	-e3énee (pl)	-éen (sg)	-eenee (pl)	-ú/ín (sg)	-ei'een (sg)	-ú/ínee (pl)	-ei'éénee (pl)
Gros Ventre	-aaan'ó (sg)	-aaanaah(˘) (pl)	-áan'ó (sg)	-o'onaah(˘) (pl)	-ei'aan'ó (sg)	-ei'aan'ó (sg)	-ei'aanaah (pl)	-ei'aanaah (pl)
Blackfoot	-o (sg)	-o:hpoaawa (sg)	-ohpinnaan (pl)	-o:hpinnaan (pl)	-oki (sg)	-okihpinnaan (pl)	-okihpoaawa (sg)	-okihpinnaan (pl)
Cheyenne	-átse (sg)	-atseme (sg)	-atsemeno (pl)	-atsemeno (pl)	-e (sg)	-emeno (pl)	-éme (sg)	-emeno (pl)

19 While I am aware that this denomination is not completely accurate, as languages such as Arapaho and Gros Ventre reflect the effects of this first Person Hierarchy in the form of a special suffix in affirmative sentences, I will henceforth use the term prefixal to refer to this first Person Hierarchy in order to distinguish it from a second Person Hierarchy – which I, by analogy, will name suffixal Person Hierarchy – that also interacts with the direct / inverse system and the proximate / obviative distinction in order to disambiguate the semantic role of the participants.

semantic and discourse-pragmatic properties and may therefore not be functionally equivalent. Thus, as regards the prefixal Person Hierarchy, there might be several pragmatic factors motivating the preference of second person over first person: avoidance of a negative or taboo target (Heath 1998), evidence of tuism rather than egoism (Singer 1984), a tuistical, rather than an ego-focused, nature of the Algonquian culture (Strauss 1989), politeness conventions (Siewierska 2004), empathy, or modesty, among others. While it is difficult to attribute this particular ranking of second person over first person to one single factor, we should assume that this more prominent, non-egocentric, role for second person appears to be pragmatically, rather than semantically, determined. The suffixal Person Hierarchy, by contrast, appears to be mainly determined by pragmatic factors such as deixis²⁰ or topicality.²¹

2.3 Do Plains Algonquian languages have voice?

Even though it is difficult to locate properties of the passive voice covering all the instances of this construction cross-linguistically, four main properties appear to have been traditionally associated with the passive: (i) there must be an alternative construction conveying the same semantic content but expressed from a different perspective (i.e. the active construction), (ii) the semantic valence of the predicate must not vary with respect to that shown in the active alternative, (iii) there must be a promotion of the patient and demotion of the agent, and (iv) there must be an argument exhibiting the same syntactic behaviour as another argument in the active counterpart.

The issue of whether Algonquian languages possess any equivalent construction to the English-style passive has always been widely debated (Rhodes 1976; Jolley 1982; Dahlstrom 1991; Wolfart 1991; among others), especially in relation to the resemblance between the active / passive alternation and the direct / inverse distinction. While the direction system of hierarchical alignment appears to map arguments to thematic roles and, consequently, functions like the voice system in languages like English, controversy exists as to whether the direct / inverse alternation should be regarded as analogous to the active / passive voice distinction. For example, the choice between two alternative semantically equivalent

20 I use the concept deixis as the distance between a specific individual or entity and a point of reference, which turns out to be the first person rather than the second person.

21 This person hierarchy is based on pragmatic topicality in the sense that speech-act participants are prototypically more topical or given in any speech act than non-speech-act participants, which must be introduced into the discourse in order to be considered topical.

constructions offered by the voice system cannot be found in local configurations in Plains Algonquian languages:

- (9) *Né-vovéstomve-átse.* Cheyenne
 2-teach-1SG>2SG
 'I teach you.' / 'You are taught by me.'
- (10) *Né-vovéstomev-e.* Cheyenne
 2-teach-2SG>1SG²²
 'You teach me.' / 'I am taught by you.'

Examples (9) and (10) show that a change in the direction of the action does not give rise to two sentences expressing the same semantic content as with the active and passive constructions. Rather, the two sentences report two different events. Thus, examples of local interactions show a major difference between direction and voice: direct and inverse do not represent alternatives in the way that active and passive evidence.

The same situation occurs in mixed scenarios, that is to say, a change of direct to inverse or vice versa in the theme markers leads to two different sentences:

- (11) *N-aaáhs-iksi* *nit-s-ik-akomimm-okiaawa.* Blackfoot
 1SG.POSS-grandparents-PL 1-EP-EMPH-love-3PL>1SG
 'My grandparents love me.' / 'I am loved by my grandparents.'
- (12) *N-aaáhs-iksi* *nit-s-ik-akomimm-ay(i)aawa.* Blackfoot
 1SG.POSS-grandparents-PL 1-EP-EMPH-love-1SG>3PL
 'I love my grandparents.' / 'My grandparents are loved by me.'

Consequently, in local and mixed interactions, while it is possible to shift the direction of the construction, it is not possible to obtain two constructions with the same semantic interpretation. In these transitive constructions involving the presence of local participants, there is no means of expressing a different point of view, so there is no equivalent alternation to that shown by the active and passive in these languages. This may be linked to the fact that first and second persons (especially in the singular, but also in the plural) are not expressed by referential phrases.

²² Despite what the comparison of theme markers provided by Table 3 appears to suggest, for the sake of clarity I will consider 1→2 and 2→1 interactions as inverse and direct respectively following Wolfart (1973)'s full direct / inverse analysis.

By contrast, a possible equivalent construction to an English-like *passive* appears to be illustrated by the non-local (3↔4) interaction, that is to say, a sentence involving the presence of two third person animate referents. The pragmatic property of obviation, which serves to provide a clausal disjoint reference between two distinct third person referents, distinguishes between proximate and obviative referents in such a way that, when two (or more) distinct third person referents are present in a clause or unit of discourse, only one of these referents retains the privileged and unmarked proximate status while the other(s) must be degraded, receiving obviative marking:

- (13) a. *Hísei nih-ii-niiteheiw-oo-t hinénin.* Arapaho
 woman PST-IPFV²³-help-3SG>4SG-3SG man.OBV
 ‘The woman helped the man.’
- b. *Hinén nih-ii-niiteheib-éi-t hiséin.*
 man PST-IPFV-help-4SG>3SG-3SG woman.OBV
 ‘The woman helped the man.’

The two sentences in (13) are semantically equivalent but pragmatically distinct. A simultaneous shift of obviation and direction does not alter the semantic interpretation but shows it from two different points of view – offered by the agent and the patient – so that this situation seems to be reminiscent of the active / passive distinction.

Additionally, the important role played by word order in Algonquian languages should not be overlooked. As instances of discourse-configurational languages (Hale 1983; Jelinek 1984; Kiss 1995), which attach more importance to the encoding of the discourse functions than that of syntactic functions, word order in these languages is so flexible that it allows all kinds of possible combinations as to the position of the major constituents for pragmatic reasons. Thus, besides the two examples illustrated in (13a) and (13b), two other semantically equivalent sentences could be built in these languages due to a simultaneous variation of the proximate and obviative status of the participants, the direction of the theme markers, and the change of position of the two referential phrases:

- (14) a. *Hinénin nih-ii-niiteheiw-oo-t hísei.* Arapaho
 man.OBV PST-IPFV-help-3SG>4SG-3SG woman
 ‘The woman helped the man.’

²³ The presence of the imperfective marker *-ii-* implies that a person would help the other regularly, on multiple occasions.

- b. *Hiséin nih-ii-niiteheib-éi-t hinén.*
 woman.OBV PST-IPFV-help-4SG>3SG-3SG man
 ‘The woman helped the man.’

While the direct / inverse system works in tandem with the proximate / obviative distinction to associate each participant with its corresponding semantic role, word order in Plains Algonquian languages is responsible for assigning a specific discourse-pragmatic function to each participant. In these languages for example, the clause-initial position appears to be generally reserved for accommodating newsworthy information, and, as proximate participants are pragmatically more salient than obviative participants, the latter do not usually precede the former, especially in preverbal position. For this reason, the example of the inverse construction in (13b) could be considered the closest equivalent to a traditional English-like passive. Consequently, it could perhaps be more accurately translated as ‘The man was helped by the woman’, as this construction promotes the patient – by marking it in the person suffix *-t*, assigning it proximate status, and placing it in clause-initial position – and demotes the agent – it is not marked in the special affix, receives obviative marking, and occurs in postverbal position –. On the other hand, while the constructions (14a) and (14b) represent possible alternative word orders, they would not sound very natural in these languages, as the correlation between preverbal position and obviative marking is pragmatically disharmonious. In summary, a sentence such as that illustrated in (13b) appears to show the trademark properties of an English-style passive. The only difference, perhaps, between the Algonquian construction in (13b) and the traditional English-like passive would lie in the detransitivization of the verb in the latter.

Algonquian languages have another construction commonly referred to as ‘Unspecified Actor’ (Hockett, 1996), which is understood to include a reference to a non-specific agent:

- (15) *N-itákkaawa Ø-aakóó’-a:wa.* Blackfoot
 1SG.POSS-friend 3-cheat-X²⁴>3SG
 ‘My friend was cheated.’
- (16) *Nit-aakóó’-(o)koo.* Blackfoot
 1-cheat-X>1SG
 ‘I was cheated.’

24 The symbol ‘X’ stands for the non-specific agent.

As we can see in the glosses of these examples, this construction is built on the same transitive verb stem (e.g. VTA or VTI) as any other transitive construction. It is particularly striking that, when the patient of an Unspecified Actor construction is a speech-act participant (16b), the verb is accompanied by the inverse theme marker *-ok-* like the other VTA inverse forms:

- (17) *Om-(w)a nínaa-wa nit-áákoo'-(o)ka.* Blackfoot
 DEM-PROX man-PROX 1-cheat-3SG>1SG
 'That man cheated me.'

This reveals an important difference in the suffixal morphology of Unspecified Actor constructions involving speech-act and non-speech-act participants: verbal forms including speech-act participants as non-actor arguments appear to involve the inverse forms, and verbal forms including third persons as non-actor arguments appear to be equated with direct forms. This distinction also suggests that the person expressing the non-specific agent must be located between the speech-act and the non-speech-act participants in the Person Hierarchy determining direction, namely $2 > 1 > X > 3 > 4 > I$. This fact would in turn imply that this construction should not be considered a "true passive" when it includes a non-speech-act participant, since, despite the fact that the agent is demoted to a non-specific referent, the patient is not given prominence, that is to say, it is not promoted to subject-like status. This fact also appears to suggest that it is not possible to establish a correlation between active and passive, on the one hand, and direct and inverse direction, on the other.

According to Wolvengrey (2011: 158-160), the presence of a transitive verbal stem means that the construction does not remove the semantic argument corresponding to the agent of the action from the understanding of the state of affairs. However, owing to the fact that the agent participant is non-specific, it is not cross-referenced on the verb. Thus, once the agent is removed from this construction, the verb takes the inflectional endings appropriate to a verb with one less animate participant, which gives the impression that there is only one argument. This assumption appears to be confirmed by the fact that this construction does not permit the lexicalization of the agent, which is related to the idea that it is not indexed and specified on the verb:

- (18) a.* *N-itákkaawa Ø-aakóó'-a:wa áiaua.* Blackfoot
 1SG.POSS-friend 3-cheat-X>3SG certain
 'My friend was cheated by someone (lit. 'certain').'

- b.* *N-itákkaayi* \emptyset -*aakóó'*-*a:yini* *áiaua*.
 1SG.POSS-friend.OBV X-cheat-X>4SG certain
 'My friend was cheated by someone (lit. certain).'
- c. *N-itákkaayi* \emptyset -*aakóó'*-*yii-wa* *áiaua*.
 1SG.POSS-friend.OBV 3-cheat-3SG>4SG certain
 'My friend was cheated by someone (lit. certain).'

Examples (18a), (18b), and (18c) show that, when a lexicalized agent is introduced, such as the third person indefinite pronoun *áiaua* 'someone' for example, the verb also uses the VTA stem and, additionally, requires the direct theme marker *-yi-* and accompanying suffixes indicating a third person agent (proximate) acting on a fourth person patient (obviative).

Given the similarity between the two constructions illustrated by (15) and (18c), we might assume that this verbal paradigm originally reflected an agent so indeterminate, general or easily inferred from the context that it stopped being cross-referenced by the verb suffix, although it continued being made explicit by the theme marker. Subsequently, this construction gradually adopted a suffixal inflectional morphology similar to the VAI paradigm, which makes it very similar to the English passive with the only difference being that the Algonquian construction does not permit the lexicalization of the agent. This makes it impossible to build two syntactically different alternatives reporting the same event so that this construction does not fulfill one of the aforementioned properties of a universal passive construction.

Once all types of interaction have been analyzed, it would seem logical not to equate direction with voice and to argue that non-local configurations are the closest to a traditional passive. Unlike local and mixed interactions, the presence of lexical referential phrases co-referring with two distinct third person pronominal arguments, along with the proximate / obviation distinction in non-local contexts, leads to two resulting constructions with the same semantic interpretation. These two alternatives would consequently represent two different points of view of the same event depending on whether the focus falls on an agent or a patient.

3 FDG analysis

The most outstanding features of Plains Algonquian transitive constructions are the prefixal and suffixal Person Hierarchies, the Semantic Role Hierarchy, the direct / inverse system, the proximate / obviative distinction, and word order. Given the fact that these features are determined by distinct semantic and prag-

matic properties (e.g. animacy, topicality, deixis, newsworthiness, etc.), it seems reasonable to think that they might also operate at different grammatical levels and, despite the apparently incompatible preferences shown by these hierarchies, their simultaneous operation may require an interaction between the different levels.

To this aim, an analysis of an Algonquian VTA (transitive construction containing two animate participants) construction involving a non-local interaction within the Functional Discourse Grammar framework will be offered in this section with the aim of revealing the syntactic, semantic, and pragmatic properties of the Algonquian construction in question, exploring a possible interaction between the different levels of linguistic representation and examining possible mismatches. This analysis will therefore enable us to shed more light on the similarities and differences between the Algonquian direct / inverse system and the traditional voice system illustrated by languages such as English.

One of Functional Discourse Grammar's trademark features is that it adopts a top-down approach to the construction of utterances and distinguishes two major operations: formulation, aimed at the formation of the underlying pragmatic and semantic representations, and encoding, responsible for the transformation of this pragmatic and semantic information into morphosyntactic and phonological representations. As a mirror image of these four representations, this framework considers that an utterance comprises four levels of organization, namely Interpersonal, Representational, Morphosyntactic, and Phonological, which reflect pragmatic, semantic, morphosyntactic, and phonological analysis respectively (Hengeveld and Mackenzie 2008: 5). These levels have a layered organization, which will be carefully examined in the following sub-sections.²⁵

3.1 Interpersonal Level

The Interpersonal Level attempts to unveil all the linguistic aspects of an utterance that reveal an interaction between a Speaker and an Addressee. These aspects include the pragmatic considerations influencing the choices made by a Speaker to ensure that an utterance has the intended effect on the Addressee. For this reason, it is crucial to know which information corresponds to given or new, whether a particular linguistic unit is identifiable or not, etc.

Pragmatic considerations of this kind appear to influence the choice between an active and a passive construction, as this alternation is traditionally seen as involv-

25 The Phonological Level is obviated for the sake of simplicity.

ing realizations of the same state of affairs but seen from different perspectives. This is illustrated in the pair of sentences (13a) and (13b), repeated here as (19a) and (19b):

- (19) a. *Hísei nih-ii-niiteheiw-oo-t hinénin.* Arapaho
 woman PST-IPFV-help-3SG>4SG-3SG man.OBV
 ‘The woman helped the man.’
- b. *Hinén nih-ii-niiteheib-éi-t hiséin.*
 man PST-IPFV-help-4SG>3SG-3SG woman.OBV
 ‘The man was helped by the woman.’

While these two constructions express the same state of affairs, the variant (19a) presents the event from the point of view of the woman and (19b) from the perspective of the man, which appear to be more pragmatically salient than the other participant in each clause. In view of the clause-initial position of these two referents both in the Arapaho and English constructions, changing the perspective in an active / passive voice alternation also appears to be mainly related to a matter of word order. This fact may be accounted for by arguing that word order in Algonquian languages appears to be linked to the discourse-pragmatic status of the participants involved.

In its treatment of pragmatic functions, Functional Discourse Grammar distinguishes three different oppositions, Focus / Background, Topic / Comment, and Contrast / Overlap, and observes that only the first value in every pair is normally encoded by a marked position within the clause, as well as through emphatic pronunciation, the addition of a special morpheme, or its presence in a special syntactic construction. This theory also highlights both the distinctiveness of every parameter and the interaction between them by affirming that it is possible for the first three values to combine with each other in the same element (Hengeveld and Mackenzie 2008: 99 – 100).

Word order in Algonquian languages is used for pragmatic purposes and the correlation between positioning and information-structural functions in Algonquian reveals a more complex pragmatic property, namely newsworthiness (Mithun 1987), a concept based on pragmatic saliency. On the basis of this property, the pragmatically-conditioned word order of Plains Algonquian languages regards the clause-initial position, which generally coincides with the preverbal position, as the most pragmatically important position in the clause, as it appears to have a foregrounded element introducing or changing a topic, representing new information, or even expressing contrast,²⁶ which reflects the aforemen-

²⁶ According to Mithun (1987), the term newsworthiness relates to the pragmatic salience or prominence given by a speaker to a specific constituent in a discourse span because s/he considers

tioned possibility of combining the values Focus, Topic, and Contrast with one another in the same constituent. Thus, the referents *hísei* ‘woman’ and *hinén* ‘man’ in examples (16a) and (16b) respectively may be seen to possess the three aforementioned values simultaneously: (i) being topical, they reveal the state of affairs being imparted to the addressee and relate the information being communicated with contextually available information; (ii), also being focal, they indicate the part of the Communicated Content that corresponds to new information; (iii) the fact that this position may contain contrastive information would also allow these elements to highlight or correct some part of the addressee’s information.

In addition to word order, discourse prominence in Algonquian languages is also assigned to a participant via the obviation system, as it differentiates two participants on the basis of their different topicality.²⁷ Thus, in examples (19a) and (19b), the proximate participants *hísei* ‘woman’ and *hinén* ‘man’ are considered to have more pragmatic salience than the two obviative participants, namely *hinénin* ‘man’ and *hiséin* ‘woman’.

Finally, the prefixal Person Hierarchy serves to single out one of the participants in terms of its pragmatic salience. In local and mixed interactions, the special prefix or suffix always designates the second person – or in its absence, the first person – as the most pragmatically prominent salient person in an event, which appears to reflect the influence of special emotional empathy towards the addressee and then towards the speaker. In examples (19a) and (19b), given the fact that they involve non-local interactions and the affixes cross-referencing third and fourth person are identical, it is not possible to discern linguistically

this information important from the hearer’s perspective. This prominence should preferably be linked to the concept of empathy, that is to say, the capacity to recognize the feelings, emotions, beliefs, and opinions experienced by the addressee. Regarding equivalence to pragmatic functions, a newsworthy element would therefore correspond to a New Topic, Contrastive Topic / Replacing Focus, or Completive Focus in Functional Grammar terminology. In these languages the marking of Contrastive Focus appears to require a special focal construction, however:

E.g.: *Hetane nea’ háanéhe tsé-véstáhém-aese he’ óho.* Cheyenne
 man PROX.AN.SG CJT-help-4SG>3SG woman.OBV VTA VTA VTA
 ‘It is the man that was helped by the woman.’ (Lit. ‘The man is the one that was helped by the woman.’)

27 According to (Aissen 1997: 709), proximate / obviative distinction works as a reference tracking system that serves to track topic continuity across a discourse span. Thus, equating the proximate with the more prototypically topical third person referent and the obviative with the least topical appears to be a more likely reflection of the function conveyed by this Algonquian phe-nomenon, as, essentially, the proximate picks out the *VTA* third person referent highest in topicality or discourse saliency. Deixis can also be seen as a triggering factor if the first person and second person are seen as proximate and obviative respectively.

which of the two participants is foregrounded. However, in such cases it is generally assumed that the special affix shows preference to the third over the fourth person; hence *hísei* ‘woman’ and *hinén* ‘man’, representing the third person participants in the two constructions, would receive more discourse prominence than *hinénin* ‘man’ and *hiséin* ‘woman’, which indicate fourth person participants.

In summary, it seems that all the systems used by Algonquian languages to give prominence to a specific participant over the other are linked with the use that speakers make of language in social communication. Accordingly, this function is linked to Functional Discourse Grammar’s Interpersonal Level (IL), which reflects the representation of the dimension of pragmatics in utterances and therefore deals with the communicative function of a Linguistic Expression (i.e. the highest unit of analysis), leaving aside other factors of a syntactic and semantic nature:

- (20) a. (M_I: [(A_I: [(F_I: DECL(F_I))(P_I)_S(P_J)_A(C_I: [(T_I)(R_I: [-S, -A](R_I))_{NEWS/PROX}(R_J: [-S, -A](R_J))_{NON-NEWS/OBV}(C_I))] (A_I)] (M_I))
 b. (M_I: [(A_I: [(F_I: DECL(F_I))(P_I)_S(P_J)_A(C_I: [(T_I)(R_I: [-S, -A](R_I))_{NEWS/PROX}(R_J: [-S, -A](R_J))_{NON-NEWS/OBV}(C_I))] (A_I)] (M_I))

These analyses show the structure at the IL of two linguistic units – each consisting of a single state of affairs – that correspond to the pair of clauses illustrated in (19). As we can see, the two utterances have the same structure at the IL.²⁸ Firstly, the interpersonal frame of the IL shows a layered structure and, in keeping with the top-down approach followed by Functional Discourse Grammar, its analysis must start with the highest layer, namely the layer of the Move (M_I). In these examples, the Move consists of only one Discourse Act (A_I),²⁹ which in turn contains a declarative Illocution (F_I). This Illocution identifies a relation between two speech-act participants, namely the speaker and the addressee (P_I and P_J) – which are not explicitly referred to in these utterances –, and the Communicated Content (C_I), which represents the information communicated by the speaker to the addressee. Secondly, the content frame contains one Ascriptive Subact (T_I), represented by a predicate denoting the event of helping, and two Referential Subacts (R_I and R_J), which refer to a man and a woman. In Algonquian languages a clause may consist of just a predicate containing referential markers that make

²⁸ The lexical items *hinén* ‘man’, *niiteheiw* ‘help’, and *hísei* ‘woman’ will be available at the RL and, subsequently, transferred unaltered to the ML. The grammatical elements *-nih-*, *-ii-*, *-éí-*, and *-t* will be inserted at the ML.

²⁹ The operator and modifier positions are not considered in the representation, as they are irrelevant to these examples.

the lexical expression of arguments potentially superfluous. These prefixes and suffixes on the verb are therefore capable of referring by themselves and must therefore be treated as the bound expressions of Referential Subacts.³⁰

Because the IL represents units in terms of their communicative function and Subacts carry pragmatic functions, the distinct values of information-structural functions must be assigned to the corresponding elements in the content frame. As we will see in Section 3.3, judging by (19a) and (19b), in Plains Algonquian languages the Ascriptive element is typically placed in the pragmatically neutral clause-middle position, since the placement of a referential element in clause-initial position entails the presence of newsworthy information. As the pragmatic function of newsworthiness appears to subsume the three different parameters of information-structural functions proposed by Functional Discourse Grammar, each of the two referents in these two utterances is assigned a different value of this complex parameter. Thus, the first referent is assigned the pragmatic function of newsworthiness and the second receives the non-newsworthiness value. Additionally, the first referent in each utterance also receives prominence by being marked as proximate, so that it is assumed to be more topical and closer to the speaker. Finally, the fact that Plains Algonquian languages mark one of the two participants involved as more prominent – maybe because of a special emotional empathy towards that participant through a special prefix, or suffix, as in affirmative sentences in Arapaho and Gros Ventre – must be represented in the IL by attributing higher pragmatic status to the foregrounded element, in this case the third person participant.

In summary, the first referent in each utterance is pragmatically highlighted on the basis of three different properties: newsworthiness through word order, proximity through the obviation system, and a special pragmatic salience through the prefixal Person Hierarchy. Furthermore, the possibility that the three information-structural statutes – Topic, Focus, and Contrast – would fall on the same element, which occurs in clause-initial position, shows that the three pragmatic functions may be combined in spite of the fact that they represent different parameters, although this is not necessarily so (see examples (14a) and (14b)).

³⁰ I discard the option of considering the two referential phrases as Discourse Acts related to the two constituents of the Nuclear Discourse Act represented by the two pronominal markers because they are not separated from the verbal complex by intonation and they cannot have their own Illocution. Furthermore, it is possible to place an element – for example indicating orientation – in clause-initial position preceding the first referential phrase.

3.2 Representational Level

The Representational Level examines those linguistic aspects related to the meaning of lexical units that can be described independently from the communicative intention of the Speaker. The identification of the referents and the assignment of their corresponding semantic functions is triggered in the grammar of Plains Algonquian languages by the hierarchical alignment system, which is articulated around the direct / inverse distinction. This distinction works alongside the suffixal Person Hierarchy, the Semantic Role Hierarchy, and the proximate / obviative opposition. The differentiation between the two third person referents of the examples (19a) and (19b), namely the woman and the man, is made thanks to the marking provided by the obviation system. The proximate picks out the referent higher up in topicality – the woman in (19a) and the man in (19b) – and the obviative marks the element that is prototypically less topical, and even more distant from the speaker, in other words less likely to be of current central interest in the discourse – the man in (19a) and the woman in (19b). Subsequently, the interaction between the suffixal Person Hierarchy and the Semantic Role Hierarchy determines the direction of the construction, which is reflected in the theme marker (e.g. *-oo-* in (19a) and *-éí-* in (19b)) and, consequently, the assignment of semantic functions. A crucial component of transitive constructions in Plains Algonquian is the theme or direction marker. This morpheme reveals an opposition between a direct construction, which indicates that the action flows in the expected direction, from higher-ranking agent to lower-ranking patient, and an inverse construction, which indicates the opposite, that is to say that a higher-ranking patient is being acted upon by a lower-ranking agent. Thus, while the direct marking on the verb in (19a), namely *-oo-*, indicates that the proximate NP (e.g. *hísei* ‘woman’) is the agent and the obviative NP (e.g. *hinénin* ‘man’) the beneficiary or more patient-like argument (i.e. the expected direction of action), the inverse marking in (19b), namely *-éí-*, indicates that the proximate NP (e.g. *hísein* ‘woman’) is the beneficiary and the obviative NP (e.g. *hínen* ‘man’) the agent (i.e., the less expected direction of action).³¹

The Functional Discourse Grammar analysis of the structure of a linguistic unit at the Representational Level (RL) concerns the examination of its semantic

³¹ As discussed above, Arapaho is an instance of a head-marking language; hence the nucleus of the predicate is accompanied by an affix representing the two semantic relations between the nucleus and its two arguments. Furthermore, the fact that the second phrase is also morphologically marked for obviation shows an instance of double marking, which is compulsory in order to distinguish the two third person referents.

properties and the way that different semantic categories such as events and entities are designated:

- (21) a. $(p_i: [(past\ ep_i: ((e_i: [(impf\ f_i: [(f_j: niiteheiw_V(f_j)) (1x_i: [(f_k: -\ hísei_N - (f_k)) (1x_i)]_A (1x_j: [(f_l: -\ hinén_N - (f_l)) (1x_j)]_U] (f_i)))] (e_i)) (ep_i)] (p_i))$
 b. $(p_i: [(past\ ep_i: ((e_i: [(impf\ f_i: [(f_j: niiteheiw_V(f_j)) (1x_i: [(f_k: -\ hísei_N - (f_k)) (1x_i)]_A (1x_j: [(f_l: -\ hinén_N - (f_l)) (1x_j)]_U] (f_i)))] (e_i)) (ep_i)] (p_i))$

As we can see, the representation of the structure of the two utterances illustrated in (19) is identical at the RL, as it was also at the IL. Only by relating both representations is it possible to ascertain where the difference in meaning lies, namely the different mapping between referents and the notion of newsworthiness and the proximate / obviative distinction:

- (22) a. $(C_i: [(T_i) (R_i) (R_i)] (C_i))$
 $(f_i: [(f_i) (x_i)_A (x_j)_U] (f_i))$
 b. $(C_i: [(T_i) (R_i) (R_i)] (C_i))$
 $(f_i: [(f_i) (x_i)_A (x_j)_U] (f_i))$

The representation at the RL in (21) starts with a description of the representational frame, which contains the Propositional Content (p_i). In this unit of analysis, the Propositional Content consists of only one episode (ep_i), as evidenced by the presence of a single temporal specification indicating absolute (past) tense marking. The imperfective aspectual distinction is seen as an operator applied to the Configurational Property (f_i) of the State-of-Affairs.

The nature of the Propositional Content in the State-of-Affairs (e_i) is partly determined by the requirements of the declarative Illocution at the IL, which, in the two examples under examination, requires a finite form of the verbal stem *níiteheiw* ‘help’ (e.g. a VTA stem) and a non-interrogative sentence form. The Propositional Content in both utterances is factual, as it relates to facts occurring in the actual world (e.g. “one person helps another”) and refers to both the source of information and the degree of confidence concerning the knowledge upon which a certain proposition is based. Thus, if we take into account that this is a clause in the Indicative Mood and shows no marker of epistemic and evidential modality, it can be considered that the Speaker reports direct (e.g. visual or sensory) evidence of the event. This reveals a high degree of certainty that such an event actually occurred.

The State-of-Affairs also denotes a dynamic event including a complex Configurational Property (f_i) whose predication frame includes the specification of the two-place Property (f_j) of its semantic constituent (i.e. the predicate) specifying a relation between the two individuals involved in the event (x_i and x_j), designating concrete and tangible entities (e.g. a man and a woman, in these examples). Finally, the Configurational Property (f_i) is also used to specify the Lexical Properties of these individuals (f_k and f_l), hence the lexical items are introduced at this level and will subsequently be transferred to the ML without a change.

The relations between the elements within a predication frame, namely the nucleus –represented by the verb *núiteheiw* ‘help’ – and the dependents – portrayed by the referential phrases –, are specified by the semantic functions of actor (i.e. more agent-like) and undergoer (i.e. less agent-like). These functions are therefore attached to each of the arguments of the Property (f_j), which are represented by the two identifiable participants *hísei* ‘woman’ and *hinén* ‘man’ in the two utterances.

It is of note that, despite swapping their position in the clauses and possessing a different status with respect to the proximate / obviative distinction, the two referents keep the same semantic function. Thus, on the one hand, the participant with the more active role, namely the woman, which is represented lexically by the proximate form *hísei* and the obviative form *hiséin* in (16a) and (16b) respectively, will be assigned the semantic function of actor. On the other hand, the participant playing the less active role, namely the man, which is realized lexically through the proximate form *hinén* and the obviative form *hinénin* in each corresponding construction, will receive the semantic function of undergoer. This also highlights the fact that, while the agent assumes greater relevance in the direct construction, it is the more patient-like argument that plays a more important role in the inverse construction.

3.3 Morphosyntactic Level

The Morphosyntactic Level examines how interpersonal and representational information is coded morphosyntactically, that is to say, in the form and positioning of constituents, thereby showing the transition from the operation of formulation to that of encoding. In order to reflect how the communicative intentions of the Speaker are formally expressed, it is important to bear in mind that the ML receives its input from the two former levels of representation and that syntactic functions are different from semantic roles and pragmatic functions. Thus, in languages like English, for instance, at least one grammatical relation, namely the Subject, plays a central role in the way that core elements align

with morphosyntactic units in active and passive constructions. For example, in the corresponding English counterparts to (19a) and (19b), two different arguments – the agent in the active and the beneficiary in the passive – are assigned the Subject syntactic function through their agreement with the verb. The Subject syntactic function in languages like English therefore represents a neutralization of the formal marking of actor and undergoer. The fact that the morphosyntactic behaviour of clausal elements in English is determined by autonomous features of the Morphosyntactic Level without the need for reference to pragmatic and / or semantic properties leads to an instance of morphosyntactic alignment.

It is, however, more difficult to determine the type of alignment that Algonquian languages exhibit. These languages organize the Morphosyntactic Level around the interaction of the direct / inverse system, which works along with the suffixal Person Hierarchy and the Semantic Role Hierarchy in order to correctly assign a semantic function to the different arguments in each construction. Thus, while in (19a) the higher-ranking argument – *hísei* ‘woman’ – is the actor, and the verb is inflected as being direct, in (19b) the higher-ranking – *hinén* ‘man’ – is the undergoer and the inverse construction is used. It is therefore the system of verbal direction, realized through the theme markers, that examines a correspondence between both hierarchies and indicates whether both hierarchies are properly aligned (the construction will be marked as direct) or not properly aligned (the construction will be marked as inverse). The syntax of Algonquian languages therefore appears to be sensitive to semantic functions, as evidenced by the fact that the assignment of semantic functions to participants is dependent on hierarchies determined by person and animacy, among other semantic properties. In light of this fact, these languages can be said to exhibit a type of representational alignment commonly referred to as hierarchical alignment (Hengeveld and Mackenzie 2008: 321).

Nevertheless, we should also note the role played by the pragmatically motivated proximate / obviative distinction in the assignment of semantic functions to the two referents in non-local configurations. Thus, only after having established at IL which of the two participants is proximate – and consequently the higher-ranking argument – and which is obviative – and consequently the lower-ranking argument –, is it possible to use the direct / inverse system to assign semantic functions to each referent. The interpretation of the semantic functions of the two participants may be reversed through the direct / inverse system or through the proximate / obviative system. However, when both are applied simultaneously, the interpretation of the semantic functions does not change, thus opening up the possibility of expressing all the possible combinations of pragmatic and semantic functions. In summary, a simultaneous shift of the proximate / obviative status

in the participants and of direction in the construction leads to two semantically equivalent constructions.

Furthermore, it should not be forgotten that Algonquian languages reserve the initial (or final) position of the verbal complexes in these languages for the cross-reference of a pragmatically salient participant. Due to the use of the prefixal Person Hierarchy, a pragmatically-determined hierarchy, one of the two participants is given greater discourse prominence and, consequently, it is cross-referenced by a special prefix (or suffix in Arapaho and Gros Ventre affirmative sentences). It is in non-local contexts that the obviation system works more closely with the prefixal Person Hierarchy. As evidenced by the Arapaho examples in (19), the fact that third and fourth persons are represented by the same morpheme in Plains Algonquian languages means that it is difficult to ascertain exactly which of the two non-Speech-Act participants is cross-referenced by this special marker. However, it is understood, due to the information provided by the proximate / obviative distinction and the suffixal Person Hierarchy, that the third person is more pragmatically salient than the fourth. In these examples, the marker *-t* occupies a sole person slot at the end of the verbal complex, following the verb stem *niiteheiw* ‘help’ and the theme marker *-oo-* (19a) or *-éí-* (19b), and the more pragmatically salient participant in each transitive construction – namely the third person participant *hísei* ‘woman’ in (16a) and *hinén* ‘man’ in (19b) – has access to this single suffixal slot in the verbal complex. Likewise, there also appears to show an important correlation between the discourse-pragmatic properties of the referents and the position that the constituents realizing these referents occupy within the clause. Thus, for example, the preverbal position in the clause is reserved for the constituent expressing the most newsworthy information and proximate participants generally tend to precede obviative participants. This implies that the proximate / obviative distinction also appears to be related to the concept of newsworthiness – which underlies the parameters Topic / Comment, Focus / Background, and Contrast / Overlap – and, consequently, affects the syntactic arrangement of constituents within the clause. In conclusion, in view of the fact that pragmatic and semantic information also correlates to syntactic structure in Algonquian languages, it would seem logical to argue that these languages exhibit a mixed system of alignment, namely interpersonal and representational.

Finally, the function of the special affix in the Arapaho examples in (19) is reminiscent of the neutralization brought about by the Subject function in English, as two different arguments are linked to the suffix *-t*, which signals the more pragmatically salient: the agent in the direct and the more patient-like argument in the inverse. In summary, the existence of a privileged syntactic function leads to

a neutralization of semantic and pragmatic oppositions,³² as the form of the personal prefix or suffix remains invariable regardless of the pragmatic status of the referent (e.g. topic, focus, etc.) or the semantic role played by the participants in the clause. Thus, although there are no grounds for positing the existence of two grammatical relations such as subject or object in addition to semantic roles in these languages, we may reasonably argue that the existence of this morphosyntactic element marking the person of the most prominent participant in a particular context appears to provide evidence for the existence of a single grammatical relation in both direct and inverse constructions (Dryer 1997: 131).

As the Discourse Act and the Propositional Content of the units of analysis illustrated by (19a) and (19b) have been analyzed at the IL and the RL respectively, it is now time to see how the operation of formulation gives way to that of encoding, which feeds the Morphosyntactic Level (ML) and the Phonological Level (PL). The ML takes pragmatic and semantic information from both the IL and the RL, combines them into a single morphosyntactic representation, represents the syntactic relations between predicates and arguments, and indicates syntactic order. The morphosyntactic structures corresponding to (19a) and (19b) are therefore as follows:

- (23) a. $Le_i: [(Cl_i: [(Np_i: (Nw_i: /hísei/ (Nw_i)) (Np_i)]_{PSA}) (Vp_i: (Vw_i: [(Aff_i: /nih/ (Aff_i)) (Aff_j: /ii/ (Aff_j)) ({}^{TA}Vs_i: /niiteheiw/ (Vs_i)) (Aff_k: 3_{pro} \cdot 4_{pro} (Aff_k)) (Aff_i: 3_{pro} (Aff_i))]) (Vw_i)) (Vp_i)) [(Np_j: (Nw_j: /hinénin/ (Nw_j)) (Np_j))] (Cl_i))] (Le_i)$
- b. $Le_i: [(Cl_i: [(Np_i: (Nw_i: /hinén/ (Nw_i)) (Np_i)]_{PSA}) (Vp_i: (Vw_i: [(Aff_i: /nih/ (Aff_i)) (Aff_j: /ii/ (Aff_j)) ({}^{TA}Vs_i: /niiteheib/ (Vs_i)) (Aff_k: 4_{pro} \cdot 3_{pro} (Aff_k)) (Aff_i: 3_{pro} (Aff_i))]) (Vw_i)) (Vp_i)) [(Np_j: (Nw_j: /hiséin/ (Nw_j)) (Np_j))] (Cl_i))] (Le_i)$

The analysis at the ML starts again with the highest layer, the Linguistic Expression (Le_i), and works down through the Clause (Cl_i) to the Phrase (Np , Vp , etc.) and finally to the lowest layer, the Word (Nw , Vw , etc.). The examples in (19) show only one unit that does not differ superficially from a Clause and operates as a domain for several morphosyntactic processes. The two resulting morphosyntactic structures show a linear sequence of three Phrases (e.g. two Nps and one Vp) for which ordering an appropriate template will be selected in accordance with

³² It could be considered an equivalent grammatical function to that expressed by the Role and Reference Grammar notion of Privileged Syntactic Argument (Van Valin 2005: 94–107), which refers to a restricted neutralization of semantic roles and pragmatic functions for syntactic purposes. The difference between the PSA in English and Algonquian is that, while in the former the PSA is purely syntactic, in the latter it is pragmatically determined.

the principles of iconicity, domain integrity, and functional stability³³ (Hengeveld and Mackenzie 2008: 283–90) that determine the relation between the levels and guarantee the parallelism between the different structures. Given the absence of morphosyntactic marking for modifiers and operators other than tense and aspect, which are placed hierarchically in a centripetal manner (e.g. the higher tense operator *-nih-* is expressed before the lower aspect operator *-ii-*), the ordering deals exclusively with the positioning of the three Subacts designating the predicate and its two arguments.

The clause-initial element is a noun phrase that expresses one of the two Referential Subacts. This noun phrase is headed by a lexical item, namely the noun *hisei* ‘woman’ in (19a) and *hisén* ‘man’ in (19b), that is passed on from the RL. Owing to the polysynthetic³⁴ nature of Plains Algonquian languages, their words may contain a high number of morphemes. Thus, the second phrase, which contains the element expressing the Ascriptive Subact, is a complex verbal form consisting of ~~four~~ or five elements, as it carries prefixes for tense and aspect and suffixes expressing directionality and the different participants, that is to say, *nih-ii-niiteheiw-oo-t* in (19a) and *nih-ii-niiteheib-éi-t* in (19b). The first two affixes, *-nih-* and *-ii-*, are inserted into the structure in response to the tense and aspect operators at the RL. The occupant of the only word slot within the verb phrase (Vp_i), the verb *niiteheiw* ‘help’ – which was introduced at the RL –, is triggered by the imperfective operator and acquires its definite form */niiteheib/* in (19b) at the PL. The direction markers *-oo-* and *-éi-* and the additional suffix *-t* are considered placeholders that express the third person singular and the fourth person

33 According to Hengeveld and Mackenzie (2008: 283–90), these three principles guarantee the maximal correspondence between the levels. Firstly, iconicity reflects the influence of the Conceptual Component on the ordering of units at the higher units of the IL and the RL. Secondly, domain integrity ensures that the organization of the IL and the RL is reflected at the ML. Finally, functional stability regulates the relative order of constituents at each level on the basis of their functional specification. Thus, the combination of these three principles ensures that the mapping across the levels is as straightforward as possible, which leads to a greater transparency and easier interpretability of linguistic structure.

34 I use the term polysynthetic typologically in the sense that words in Algonquian languages are composed of many morphemes. According to the use of the term in Functional Discourse Grammar, which is related to the presence of more than one lexical unit within a single morphosyntactic word, these languages can also be considered polysynthetic, as illustrated by the possibility of attaching a lexical unit such as *teco* ‘on’ ‘always’ or *ce* ‘i’ ‘again’ to the left of the verb *niiteheiw* ‘help’ in examples (19a) and (19b). Likewise, in terms of transparency, they are agglutinating languages, because they generally show a one-to-one relation between a morpheme and a unit of meaning. However, they also show some characteristics of fusional languages, which do not exhibit such a transparent relation between units of form and meaning, as shown by their portmanteau verbal suffixes.

singular pronouns and become part of the same phonological word as the verb, to which they are attached, at the PL.³⁵ The clause-final position is occupied by a noun phrase expressing the second Referential Subact. This noun phrase is headed by the nouns *hinénin* ‘man’ and *hiséin* ‘woman’ in (19a) and (19b) respectively, which are marked for obviation.

Once the organization of the ML in Plains Algonquian languages has been presented, we should turn to an analysis of the hierarchical ordering of core units in these languages. As discussed above, the assignment of each Phrase to a position in the template in Functional Discourse Grammar results from a complex interplay between its morphosyntactic category and its pragmatic function, which is inherited from the Interpersonal Level. These pragmatic functions, such as Topic, Focus, and Contrast, are represented by the concept of newsworthiness in Algonquian. Furthermore, in these languages, the proximate / obviative distinction appears to be closely related to the Topic / Comment parameter and may consequently affect the syntactic arrangement of constituents within the clause, so that proximate participants tend to precede obviative participants.³⁶ Regarding the specific positions occupied by the different elements of the linguistic expression in these languages, the two peripheral positions, the Pre-Clausal position (P^{pre}) and the Post-Clausal position (P^{post}), are reserved for extra-clausal elements. The position (P^{centre}) can be considered the most important position in these languages, as it hosts the newsworthy elements, which are marked through their occurrence in P^1 , and the verbal complex. The verbal complex, which occupies the Clause-medial position (P^M) unless it expresses newsworthy information, comprises the verb, the special prefix or suffix representing the most pragmatically salient participant according to the Person Hierarchy, the theme marker, and a suffix providing grammatical information about the predicate arguments.³⁷ The full morphosyntactic representation of (19a) and (19b), including the positions occupied by the different phrases, is shown in (24a) and (24b):

35 Among the morphosyntactic primitives of these languages there will be one of these two Word templates, depending on whether they have either a person prefix or a person suffix:

a. $(Vw_i: [(Aff_i) (Vs_i) (Aff_i) (Aff_{i,j})] (Vw_i))$

b. $(Vw_i: [(Vs_i) (Aff_i) (Aff_i) (Aff_{i,k})] (Vw_i))$

36 A number of semantic properties such as referentiality or specificity also appear to determine the form of the predicate, as illustrated by the Unspecified Actor construction, for example.

37 Although grammatical Morphemes are inserted at the ML, pronominal affixes in Algonquian languages change their form when they are combined with others to form non-segmentable portmanteau suffixes, implying that their definitive phonemic form will be available at the PL.

(24) a.

P^{pre}

P^{centre}

P^I

$(Cl_i: [(Np_i: (Nw_i: \textcolor{blue}{hísei} / (Nw_i)) (Np_i))_{PSA}]$
 P^M

$(Vp_i: [$

P^I

P^{M-2}

$(Vw_i: [(Aff_i: /nih/ (Aff_i))$
 P^{M-1}

$(Aff_j: /ii/ (Aff_j))$
 P^M

$(^{TA}Vs_i: /niiteheib\textcolor{blue}{b} / (Vs_i))$
 P^{M+1}

$(Aff_k: 3_{pro} \cdot 4_{pro} (Aff_k))$
 P^F

$(Aff_l: 3_{pro} (Aff_l))$
 $] (Vw_i))$

$] (Vp_i))$

P^F

$(Np_j: [$

P^I

P^M

$(Nw_j: [(Ns_i: /hinén/ (Ns_i))$
 P^F

$(Aff_m: /in/ (Aff_m))$
 $] (Nw_i))$

$] (Np_j))_{Non-PSA}$

P^{post}

$] (Cl_i)] (Le_i))$

b.

P^{pre}

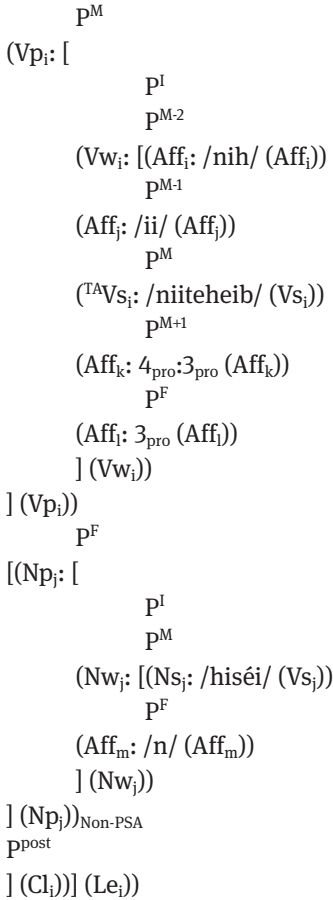
P^{centre}

P^I

$(Cl_i: [(Np_i: (Nw_i: \textcolor{blue}{hinén} / (Nw_i)) (Np_i))_{PSA}]$
 P^I

P^M

P^F



The fact that the verbal complex includes the predicate and the pronominal affixes cross-referencing its arguments implies that lexically realized arguments, which corefer with the pronominal affixes on the verbal complex, are syntactically optional. These referential phrases may occupy both preverbal and postverbal positions, which will be referred to as P^I and P^F within the P^{centre} position.

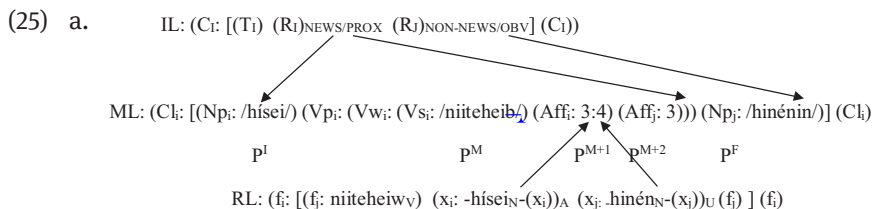
As regards the development of the Vp , further positions are provided within the phrase. Thus, the position reserved for the privileged syntactic argument (PSA) – cross-referenced by the special affix in the initial or final position of the verbal complexes in Algonquian languages –, which represents the most pragmatically salient participant, would commonly be P^I or P^F . Any operator or modifier preceding the verb stem would be placed in a different premedial (P^{M-n}) position. The verbal stem would occupy a central P^M position, and subsequent postmedial (P^{M+n}) and P^F positions would be provided for the theme marker and the

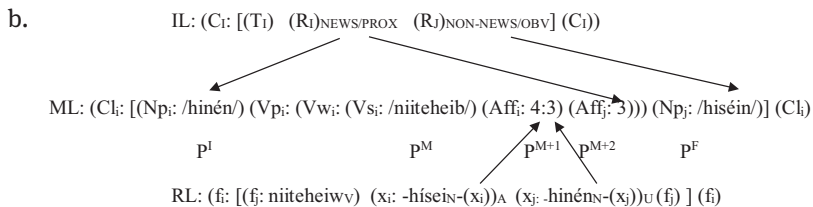
extra suffix containing information about the person, number, and animacy of the arguments, which are generally realized phonologically as a portmanteau suffix at PL.

3.4 Cross-level interaction

The multilevel analysis of the linguistic units under examination has uncovered a number of interface conditions – understood as devices that enable the different levels to communicate with each other –, allowing for an interaction between the different levels of grammatical description. In the Functional Discourse Grammar model, the operations of Formulation and Encoding function as interfaces that regulate the relations across the levels (Hengeveld and Mackenzie 2008: 287). These interfaces in Plains Algonquian languages, such as the distinction between proximate and obviative, the two Person Hierarchies, the Semantic Role Hierarchy, or the direct / inverse system, make up a complex system that forces all the levels to cooperate with each other, and the outcome of this cooperation finally determines the morphosyntactic structure of the transitive constructions in these languages.

In order to explain this important relationship between the different grammatical levels, it is necessary to use a theoretical framework consisting of a coherent and accurate structure that may be equally valid for all types of language and that enables us to undertake an exhaustive and rigorous description of the grammatical phenomena taking place at each level. Furthermore, at the same time, it must also be flexible enough to explore, identify, and explain the interactions that take place between the different levels of grammatical description. Functional Discourse Grammar is therefore a very appropriate theoretical framework for this purpose, since it shows the cross-level interactions in a clear, detailed, and elegant way. The following diagram shows mappings between the units illustrated in (19a) and (19b) at all levels:





The **blue** arrows in these two diagrams highlight the different mappings between the IL, the RL and the ML and show that the morphosyntactic configuration of the linguistic units is determined by both pragmatic and semantic properties. Thus, firstly, the differentiation between the two third person participants in the constructions is made thanks to the proximate / obviative distinction. This is mainly based on pragmatic properties that take into consideration how important the speaker thinks each referent is for the hearer as the discourse progresses. Such distinction works closely with the direct / inverse system, which reflects the presence or absence of correlation between the Person Hierarchy and the Semantic Role Hierarchy, to identify which semantic role must be assigned to each of the two arguments in each construction. It is important to emphasize here that any variation in the proximate / obviative marking not accompanied by a corresponding change in verbal direction would obligatorily lead to two semantically different constructions. Additionally, the proximate / obviative distinction is also related to the special coding of one of the arguments in the special verbal affix – suffix in the case of Arapaho – that singles out the highest ranking person in terms of the pragmatic properties that determine the prefixal Person Hierarchy for special treatment, which, along with the newsworthy value and the proximate status, grants higher discourse salience to that argument than to the other. Finally, the position of the two Nps in each construction is mainly determined by the pragmatic function of newsworthiness, which subsumes the parameters Topic / Comment, Focus / Background, and Contrast / Overlap. As the clause-initial position is associated with newsworthy value, the Np having this pragmatic value in each construction moves to the preverbal position, namely the P^I position. In conclusion, Algonquian languages use an intricate unified system consisting of a reference tracking mechanism based on the proximate / obviative distinction between third person participants, two Person hierarchies determined by the pragmatic-semantic notion of prominence, a Semantic Role hierarchy and a binary system of verbal direction to establish the link between pragmatic, semantic and syntactic information.

Despite the efficiency of this system, it is also possible to observe a lack of interaction in some respects. For example, besides the incompatibility shown by

the two Person hierarchies in terms of the preference given to either first person or second person, there also appears to be a difference in the criterion that determines their distinct rankings. Thus, we might assume that the two Person hierarchies may be working at different levels, as we have seen in section 3. As some scholars suggest (Zwicky 1977; Macauley 2005; Zuñiga 2008), Plains Algonquian languages may have two (or even more)³⁸ distinct Person hierarchies, which may be determined by different features, pragmatic or semantic, so that they may in fact have a different person ranking. This appears to lead us, again, to discard the idea that they may be two exponents of a single system.

On the other hand, despite the tendency for the morphosyntactic categories to correlate with pragmatic and semantic categories (Zwicky 1977: 714), there are mismatches between levels in transitive constructions in Plains Algonquian. Firstly, the fact that in these languages the pronominal affixes, such as *-oo-t* (3:4) in (25a) and *-éi-t* (4:3) in (25b), cross-reference arguments make noun phrases, such as *hísei* / *hiséin* ‘woman’ and *hinén* / *hinénin* ‘man’, function as adjunct and, consequently, be freely omitted. This cross-reference therefore leads to situations where two Referential Subacts correspond to a single unit at RL and, consequently, to a mismatch between IL and RL. A further instance of mismatch between the IL and the RL can be illustrated by the lack of isomorphism (i.e. homology of function and form) that characterizes these Algonquian languages, since different pragmatic values, such as newsworthy and proximate, can be associated with a single element. This can be illustrated by the referents *hísei* ‘woman’ in (25a) and *hinén* ‘man’ in (25b), which are marked morphologically as proximate third person argument and express the most newsworthy information, as is indicated by their clause-initial position.

Secondly, Plains Algonquian languages do not have a one-to-one relation between the unit of meaning and the unit of form, leading to a mismatch between the RL and the ML, as, like other polysynthetic languages, these languages have portmanteau pronominal affixes simultaneously expressing different types of grammatical information. This fusion or many-to-one relationship between the meaning and form is evidenced, for example, by the theme markers, *-oo-* (rep-

38 In fact, the situation appears to be much more complex than this. For example, a comparative analysis of the suffix used for the exclusive first person plural, the inclusive first person plural and the second person plural in VAI (i.e. intransitive construction with an animate agent) and VTI (i.e. transitive constructions including an inanimate patient) constructions in terms of similarity as evidence for the preference for either first or second person shows great variation and provides conflicting results, which leads to the conclusion that first and second persons cannot be hierarchized in a simple manner (Macauley 2009).

resented as 3:4)³⁹ in (25a) and -*éí*- (4:3) in (25b), which express a third person singular agent acting on a fourth person singular beneficiary and a fourth person singular agent acting on a third person singular beneficiary respectively. A further instance of mismatch between the RL and the ML would be illustrated by the discontinuity shown by the expression of the same semantic unit – that is a third person argument such as *hísei* ‘woman’ in (25a) or *hinén* ‘man’ in (25b) – in two different morphosyntactic positions, namely in the suffix (or prefix in Cheyenne and Blackfoot) -*t* and in the theme marker -*oo*- (3:4) in (25a) or -*éí*- (4:3) in (25b).

Finally, with regard to the consideration of the direct / inverse constructions in Algonquian as analogous to the active / passive distinction in languages like English, the mappings observed in (25a) and (25b) illustrate the properties that have been traditionally attributed to the active / passive opposition, namely the choice between two semantically equivalent alternatives seen from two different perspectives, an identical semantic valency in the two variants, and the existence of a privileged syntactic position in the two constructions where two different arguments exhibit the same coding and behavioural properties. Judging by these characteristics, the only difference between direct and inverse constructions would lie in the element to be foregrounded. The ~~blue~~ arrows in the examples of representations offered in (25a) and (25b) reveal two correlations: newsworthy = proximate = P^I = agent = third person in (25a) and newsworthy = proximate = P^I = beneficiary = third person in (25b), which show a promotion of the agent and demotion of the more patient-like argument in the direct construction and the promotion of the more patient-like argument and demotion of the agent in the inverse construction, which is in fact similar to active and passive constructions. Additionally, the only difference between an inverse construction such as (19b) and a traditional English-like passive lies in the different syntactic neutralization, namely pragmatic (determined by empathy, avoidance of a negative target, tuism, etc.) in Algonquian and purely syntactic in English (determined by agreement). This neutralization of pragmatic and semantic functions represented in the special syntactic position of the verbal prefix leads to a mismatch between the IL / RL and the ML, as it reflects a reduction of the distinctions available at IL and RL to a single distinction at ML. Likewise, it is this different type of neutralization – pragmatically-influenced in the case of Algonquian and purely syntactic in languages like English – that leads Functional Discourse Grammar to conclude that inverse constructions are not analogous to passive constructions.

³⁹ Taking into account they are portmanteau forms, these bound grammatical morphemes must be inserted at the PL. It is at this level that the placeholders such as ‘3:4’ and ‘4:3’, which are introduced at the ML, will be converted to the suffixes /*oo*/ and /*éí*/.

Keizer (2014: 412–418) posits a somewhat different treatment of the active / passive alternation within the Functional Discourse Grammar framework. This new proposal focuses on the factors that trigger the choice between one and the other variant rather than on the formal aspects of each construction. According to the author, of the four factors that appear to motivate the speaker to use a particular variant, the most important is the Speaker's perspective, a pragmatic notion fulfilling an interpersonal, communicative function, as it depends on the communicative intention of the Speaker and is mainly determined by the discourse context. The information from the preceding discourse, or what can be inferred from it, motivates the demotion of the actor and the promotion of the patient, probably instigated by topic continuity and topic cohesion (Bolkenstein and Risselada 1987). Consequently, in keeping with this new view, the factor triggering subject (and object) assignment is now outside the Grammatical Component – to be more accurate, in the Contextual Component –. Rather, the cognitive process determining the Speaker's perspective is therefore preverbal and is considered to pass from the Contextual Component to the Conceptual Component before entering formulation, where its outcome must be represented at the Interpersonal Level. The implication of this analysis for the theory of Functional Discourse Grammar is that, as the choice between active and passive in English is communicatively motivated and the perspective from which the message is going to be communicated is always present – every clause is either active or passive –, it must be represented as a single operator situated at the layer of the Referential Subact. As this new interpersonal operator, along with the information provided at the Representational Level, triggers the appropriate morphosyntactic form, the contextual information can be said to indirectly influence the form of the linguistic utterance.

In this analysis, the English-like active / passive alternation resembles more the direct / inverse distinction in Algonquian and, owing to the presence of the interpersonal operator, the two variants in each language no longer have the same structure at IL. As the subject⁴⁰ selects the referent in the speaker's focus of attention in English, the special affix representing the most pragmatically prominent participant in Algonquian constructions can also be said to reflect the perspective from which the message is going to be presented, as it is in this position that a specific participant changes the perspective involved in interpreting the utterance once the referent has been established as proximate. Thus, while these two constructions in (19) express the same state of affairs, the variant (19a) pre-

⁴⁰ If Keizer's perspective does not necessarily equate to subject assignment, then the shift in perspective in Algonquian could not only be attributed to the special affix, but also to the preverbal position occupied by the newsworthy element or to the referent marked as proximate, which generally conflate.

sents the event from the point of view of the woman and (19b) from the perspective of the man, so the two utterances have a different structure at the IL.

Finally, like Keizer's proposal for English, in Algonquian the Speaker's perspective can also be considered to be a composite notion comprising a number of pragmatic properties, such as empathy, avoidance of a negative target, tuism, politeness, or modesty. Likewise, as with the active / passive alternation, in Algonquian languages the choice between direct and inverse constructions is communicatively motivated, as every clause is either direct or inverse. Thus, this contextual information must be understood to pass from the Contextual Component to the Conceptual Component and enter formulation at the Interpersonal Level. This implies that this contextual information may be represented as an interpersonal operator, which has an impact on the direct / inverse system that determines the morphosyntactic form of the utterance.

4 Conclusion

This paper has offered an analysis of monotransitive constructions involving interactions between animate participants in Plains Algonquian languages with the aim of finding some that can be considered equivalent to the passive voice in languages such as English. Once such a construction – one involving a non-local interaction – was identified and its morphosyntactic, semantic, and pragmatic properties explained, a multilevel analysis of such a construction was offered within the Functional Discourse Grammar framework. This multilevel analysis was capable of offering a complete view of the linguistic phenomenon under examination and, consequently, of explaining its properties accurately.

This study has enabled us to observe that there is a solid relationship between the different levels of grammatical description in the direct and inverse VTA constructions and that the greater weight of this interplay lies in the pragmatic and semantic components due to the pervasive importance of concepts such as newsworthiness, topicality, animacy or referentiality in the grammar of Plains Algonquian languages, for example, in word order and in the different hierarchies. This confirms Functional Discourse Grammar's assumption that, within the top-down organization of the grammar, pragmatics and semantics govern morphosyntax (Hengeveld and Mackenzie 2008: 13).

The analysis of direct and inverse constructions in a non-local context has revealed a number of interface conditions, such as the two Person Hierarchies, the Semantic Role Hierarchy, the direct / inverse system, and the obviation system. This complex mechanism forces all the grammatical levels to cooperate

with each other in order to determine the morphosyntactic structure of the construction in question, thereby illustrating the way that the Functional Discourse Grammar operations of Formulation and Encoding function to regulate the relations across the different levels. More specifically, the discourse-pragmatic proximate / obviative distinction, which helps to differentiate between the two third person participants in a non-local transitive construction, works closely with the direct / inverse system, which reflects the presence or absence of correlation between the Person Hierarchy and the Semantic Role Hierarchy, with the aim of determining the assignment of semantic roles to arguments. Important evidence of the link between pragmatic, semantic, and syntactic information is illustrated when a variation in the proximate / obviative marking is accompanied by a corresponding change in verbal direction, as this situation leads to two syntactically different, but semantically equivalent, constructions, which makes the direct / inverse distinction analogous to the canonical active / voice alternation. Despite the efficiency of this intricate unified system, it is also possible to observe a lack of straightforward or transparent mappings between the levels or mismatches in some respects, such as, for example, the consideration of pronominal markers as syntactic arguments, the fact that the pragmatic values newsworthy and proximate are generally associated with a single element, the presence of portmanteau pronominal affixes simultaneously cross-referencing different arguments, the expression of arguments in different morphosyntactic positions, and the neutralization of pragmatic and semantic functions in a special syntactic position.

Finally, this analysis reveals that, although English and Algonquian languages have a different alignment type – morphosyntactic in the former and mixed interpersonal and representational in the latter –, the inverse VTA Algonquian construction in a non-local interaction shows characteristics traditionally attributed to the English-style passive, especially if the active / passive alternation is seen according to Keizer (2014)’s view, where the subject is considered to reflect the speaker’s perspective and, consequently, seen as pragmatically motivated, as it occurs with the privileged syntactic position in Algonquian constructions. In this analysis, the English-like active / passive alternation resembles more the direct / inverse distinction in Algonquian since, analogously as the subject selects the referent in the speaker’s focus of attention in English, the special affix representing the most pragmatically prominent participant in Algonquian constructions can also be said to reflect the perspective from which the message is going to be presented. This similar treatment of the active / passive alternation and direct / inverse distinction, therefore confirms the strong typological orientation of this theoretical framework, enabling us to represent similar constructions in languages of all morphosyntactic types (e.g. head-marking vs. dependent-marking, synthetic vs. analytic, etc.) in a similar way. This evidence therefore confirms that “FDG is capable

of providing a framework for the enunciation and comparison of universals and of offering lines of explanation” (Hengeveld and Mackenzie 2006: 32).

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