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Word order and information structure in Makhuwa-Enahara

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5. Morphological marking of information structure: conjoint and disjoint verb forms

Some conjugations in Makhuwa verbal inflection occur in pairs, called conjoint (CJ) and disjoint (DJ). These CJ and DJ verb forms and their use were briefly described in chapter 2, sections 2.5 and 2.6.5. The current chapter provides more background to the alternation and describes the specific syntactic and phonological properties of the CJ and the DJ verb forms. Where chapter 4 discussed the postverbal domain after the DJ verb form, in this chapter the domain following a CJ verb form is examined. The position immediately after the CJ verb form is shown to be of importance for the information structure. First, the possible differences in interpretation are discussed next (TAM, focus, exclusivity, constituency), and next I show how the interface model presented in chapter 3 can account for the interpretation of the element following a CJ verb form. This account is more likely to be applicable in other languages than the cartographic account, although the latter is shown to encounter no specific problems for the CJ/DJ alternation in Makhuwa, apart from the general objections mentioned in chapter 3.

The form of the verb is always indicated as CJ or DJ in the glosses, and in this chapter often also before the examples. The term “focus projection” is used in two different senses. It can refer to a functional projection in the syntactic derivation (FocP), or it can refer to a process where focus on a head or argument is projected to a higher phrase. In general, the context disambiguates these two meanings.

5.1 The conjoint/disjoint alternation

5.1.1 Terminology

The terms “conjoint” and “disjoint” were first used by Meeussen (1959) in his description of Kirundi. He noticed that some conjugations form pairs that are equivalent with respect to their TAM semantics, and described them as expressing a difference in the relation of the verb with the element following it. Hence the term *conjoint* (< French, ‘united’) for a combination V X that is very close and the term *disjoint* (‘separated’) for a structure in which the verb does not have such a close relation with a following element – if such exists. The terms have been translated to English as “conjunctive” and “disjunctive”, as used in Creissels’s (1996) article on Tswana, but the originally French terms are now also used in English.

The opposition as such has been known from some southern Bantu languages for much longer, e.g., Doke (1927) for Zulu and Cole (1955) for Tswana. The descriptive labels they use are “long form” versus “short form”, which refer to the fact that the DJ form is often longer than its CJ counterpart, i.e., it may contain either a

segmental TAM marker not appearing in the related CJ form, or a longer allomorph of the verb-final morpheme.

Referring less to the length of the verb forms and more to their function and distribution in Makhuwa-Esaaka, Katupha (1983:126) uses the terms “strong/weak” and describes them as follows:

The possibility of choice between “strong” and “weak” conjugations is a property of the indicative mood. The strong conjugation is stable per se, i.e., it does not require necessarily any other unit for the structure within which it occurs to be complete; the weak conjugation presupposes a following element in the structure of the clause.

Earlier, Pires Prata (1960) had described the Makhuwa CJ/DJ alternation, calling the DJ forms *independente* ‘independent’ and the CJ *subordinada* ‘subordinated’. Since there is no morphological difference between the CJ verb form and the verb in a subject relative clause, Pires Prata (p. 201) takes them to be the same and notes that this subordinated form is used (i) in subordinated clauses of time, location, manner, comparison etc; (ii) in relative clauses and (iii) in main clauses that are either a *wh*-question or an answer to that question. He does not mention the distributional restrictions with respect to phrase-final occurrence, but indicates the most typical use of the CJ form when it is followed by a *wh*-word or a focused object or adjunct.

None of the terms discussed above adequately indicates the nature of (the difference between) the two verb forms in Makhuwa, but I use the terms conjoint and disjoint, since these have been used in the descriptions of neighbouring languages, such as Makwe (Devos 2004) and Makonde (Kraal 2005) and in various linguistics articles over the last years.

5.1.2 *Origin and spread of the alternation*

Nurse (2008:193) studies the geographical distribution of the CJ/DJ distinction and finds that “certain Savanna languages contrast post-verbal and verb focus, the latter marked by an inflectional morpheme following the tense-marker: D60, M40, (M50), M60, P20-30, S20-30, K21, S40-50.” Better known languages in these areas, with references for the interested reader, are Ha (Harjula 2004), Kinyarwanda (Kimenyi 1980), Kirundi (Meeussen 1959, Ndayiragije 1999), Bemba (Sharman 1956, Sharman and Meeussen 1955, Givón 1975), Tonga (Carter 1963), Makonde (Kraal 2005), Makhuwa, Venda (Poulos 1990), Tswana (Creissels 1996), Northern Sotho (Kosch 1988, Zerbian 2006), Xhosa (McLaren 1955), Swati (Thwala 1996, Klein 2006), Zulu (Doke 1927, Van der Spuy 1993, Buell 2006). To these can also be added Sambaa (G23, Buell and Riedel 2008) and Haya (E22, Hyman 1999).

Both Güldemann (2003) and Nurse (2008) reflect on the possible origin of the CJ/DJ alternation. Although the morphology is not consistent across tenses in one language, or crosslinguistically, they conclude that the inflectional morphology and the

prosodic patterns are a central factor in the marking of the verb forms. They argue that the alternation can, in some form, be reconstructed for Proto-Bantu, “because it is unlikely that so many languages would have innovated morphological focus of this type independently” (Nurse 2008:204). Both Güldemann and Nurse propose a grammaticalisation path for the Proto-Bantu non-past marker *-a-* from a focus marker, to a progressive marker, to a present marker, and possibly even to a future tense marker. The history and development of the CJ/DJ marking, or of the alternation in general, are not investigated in this thesis, but see Hyman and Watters (1984), Güldemann (2003), and Nurse (2008) for more discussion.

The CJ/DJ distinction may diachronically, and possibly synchronically as well, also be linked to the so-called tone cases, as described for Herero (Kavari and Marten 2006) and Umbundu (Schadeberg 1986).

5.2 Conjoint/disjoint in Makhuwa

This section discusses the differences between the CJ and DJ verb forms as they are found in Makhuwa-Enahara. I present the formal properties of the two verb forms in the first two sections, which include the segmental and tonal marking and the sentence-final distribution. The interpretational differences between the two forms are discussed from section 5.2.3 onwards.

5.2.1 Formal marking

The formal characteristics of the CJ/DJ alternation in Makhuwa-Enahara were presented in section 2.6.5 of chapter 2, and the forms in different conjugations are listed and described in section 2.5 of that chapter. The basic data are repeated and extended here.

A very salient and easily detectable difference between the verb forms is their sentence-final distribution: the CJ form needs to be followed by some other element, while the DJ form can occur sentence-finally, although it does not need to. This is why the CJ form is followed by an object in (679)-(682). The segmental morphological marking of the two verb forms is quite different for the four basic conjugations in which the CJ/DJ distinction exists, as shown in (679)-(682). In the present DJ form, the DJ TAM marker (*-naa-*) could be analysed as a combination of a present tense marker (*-n-*) and a DJ morpheme (*-aa-*). However, in the present perfect the same distinction exists, but it is hard to segmentalise a DJ morpheme. Therefore, I would rather speak of distinct TAM markers than of a separate DJ morpheme, and regard them as different paradigms. As in other Bantu languages, however, the preverbal TAM markers tend to be more complex in the DJ form.

(679)	CJ	ni- <u>n</u> -thípá 1PL-PRES.CJ-dig 'we dig a hole'	nlittí 5.hole	DJ	ni- <u>náá</u> -thípá 1PL-PRES.DJ-dig 'we are digging'
(680)	CJ	ni-thip- <u>alé</u> 1PL-dig-PERF.CJ 'we have dug a hole'	nlittí 5.hole	DJ	n- <u>oo</u> -thípá 1PL-PERF.DJ-dig 'we have dug'
(681)	CJ	n- <u>aa</u> -thípá 1PL-IMPF.CJ-dig 'we dug a hole'	nlittí 5.hole	DJ	n- <u>aánaa</u> -thípá 1PL-IMPF.DJ-dig 'we were digging'
(682)	CJ	n- <u>aa</u> -thip- <u>alé</u> 1PL-PAST-dig-PERF.CJ 'we had dug a hole'	nlittí 5.hole	DJ	n- <u>aahí</u> -thípá 1PL-PAST.PERF.DJ-dig 'we had dug'

Although Katupha (1983:128) states that the CJ/DJ distinction is absent in negative constructions, Pires Prata (1960) gives a negative counterpart for both the “independent” and the “subordinated” tenses. The negative verb forms which would qualify as CJ are not very easily noticeable, but the full paradigm does exist in the negative as well, as shown in (683) to (686). The main difference between the two verb forms is in the negative marker here, which is the initial *kha-* for the DJ forms, and the post-initial *-hi-* for the CJ forms. Combined with the past tense marker *-aa-* the negative marker surfaces as *-khaa-* or *-haa-*. The negative morphemes themselves are not glossed as CJ or DJ, since the negative morpheme *-hi-* also occurs in negative conjugations that do not have a CJ/DJ alternation. Instead, the whole verb form is glossed as CJ or DJ at the end.

The negative CJ verb form is not used often. In fact, in a normal SVO sentence the affirmative conjugations take the CJ form as a default, but the negative conjugations appear in the DJ form. Since the negation marking in this negative CJ form is not exclusively used for the CJ form, it might be the case that the use of these negative verb forms is determined by a difference between dependent and independent conjugations, rather than the CJ/DJ alternation. Another possibility is that this negative form originated differently but became reinterpreted as the CJ form in the CJ/DJ distinction. It could also be that the distinction was once present in the negative conjugations but is now disappearing. Because the full paradigm is present, and because some uses of this negative form are very similar to the use of the affirmative CJ forms (as shown later in this section), I refer to these different negative basic conjugations as CJ and DJ.

(683)	CJ	o-hi-ń-thúma	esheeni?	DJ	kha-ń-thúma
		1-NEG-PRES-buy.CJ	9.what		NEG.1-PRES-buy.DJ
		‘what doesn’t he buy?’			‘he doesn’t buy (it)’
(684)	CJ	o-hi-thum-ál’	ésheeni?	DJ	kha-thum-ále
		1-NEG-buy-PERF.CJ	9.what		NEG.1-buy-PERF.DJ
		‘what hasn’t he bought?’			‘he hasn’t bought (it)’
(685)	CJ	a-haa-thúma	esheeni?	DJ	khaa-thúma
		1-NEG.IMPF-buy.CJ	9.what		NEG.1.IMPF-buy.DJ
		‘what didn’t he buy?’			‘he didn’t buy (it)’
(686)	CJ	a-haa-thum-ál’	ésheeni?	DJ	khaa-thum-ále
		1-NEG.PAST-buy-PERF.CJ	9.what		NEG.1.PAST-buy-PERF.DJ
		‘what hadn’t he bought?’			‘he hadn’t bought (it)’

The CJ/DJ alternation is only present in these four basic conjugations. However, even though the optative only has one form, it seems to have a CJ/DJ effect as well. The optative can occur sentence-finally, which is only possible for DJ verb forms (687), but also before a *wh*-word, which is only grammatical for CJ verb forms (688). The behaviour of CJ and DJ verb forms in sentence-final position and before *wh*-words is discussed further in the next paragraphs. The optative is thus formally DJ, but occurs in typically “CJ” environments as well. (see also section 5.2.4). The infinitive is the one other conjugation which can occur with a *wh*-word (689). Most other conjugations have one verb form and function as DJ, as far as I am aware. For example, the habitual may occur sentence-finally (690a) but not before a *wh*-word (690b). Instead of the past habitual, a verb with a durative extension is used, in the CJ imperfective conjugation, to indicate the regular character of the action (690c).

(687) hw-íira o-ń-kóh-e (H4.24)
NARR-do 2SG-1-ask-OPT
‘he said: “ask him!”’

(688) vá k-iir-é tsayi? (H9.12)
now 1SG-do-OPT how
‘now what do I do?’

(689) o-ń-thóla páni? (K4.21)
15-1-search 1.who
‘searching whom?’

- (690) a. ekhálaí ekhalaí | enámá ts-aání-lávúla (H9.1)
 long.ago RED 10.animal 10-PAST.HAB-speak
 ‘a long time ago, animals used to talk’
- b. * ekhálaí enámá ts-aání-lávúla tsayi?
 long.ago 10.animals 10-PAST.HAB-speak how
 int. ‘long ago, how did the animals used to talk?’
- c. ekálái enámá ts-aa-lávúl-aka tsayi?
 long.ago 10.animals 10-IMPF.CJ-speak-DUR how
 ‘long ago, how did the animals used to talk?’

In the basic conjugations the CJ/DJ distinction is also often marked with a different tone pattern on the element following a CJ form (Stucky 1979, Katupha 1983). The element following a DJ verb form has the same tone pattern as in citation form (691a,c), whereas the element following a CJ verb form undergoes predicative lowering (PL) (Schadeberg and Mucanheia 2000): the first underlying high tone is removed (691b). When a word would have no H tones left after PL, a H boundary tone can be added on the last mora. The difference in tone patterns after a CJ or DJ verb form is the same for each (affirmative and negative) basic conjugation.

- (691) namárokolo ‘hare’ (citation, LHHLL)
- a. CJ a-ní-m-phwányá namarokoló (LLLLH)
 2-PRES.CJ-1-meet 1.hare
 ‘he finds a/the hare’
- b. DJ a-námí-phwányá namárokolo (LHHLL)
 2-PRES.DJ-1-meet 1.hare
 ‘he finds a/the hare’

PL will only show up on the elements which have the possibility to undergo PL, as indicated in Table 19. These are described in chapter 2, sections 2.1, 2.6.4 and 2.6.5; see Van der Wal (2006b) for more discussion on PL.

Table 19 - Elements with and without predicative lowering

PL after CJ	no PL after CJ
lexical nouns class 1-15	personal and demonstrative pronouns
interrogatives	interrogative <i>pani</i> ‘who’
instrumental <i>ni</i> NP	connective constructions (headless) relatives locatives adverbs proper names

5.2.2 Sentence-final distribution

As mentioned, the CJ verb form may not occur sentence-finally (692). It must be followed by some element, which can be a direct or indirect object (693) in its full form or as an enclitic (694), a prepositional phrase (695), or an adjunct (696). The instrumental prepositional phrase in (695) undergoes PL after the CJ verb form, but the adverbs in (696) do not, and neither do locatives, whether argument or adjunct (697).

- (692) CJ * o-n-shókhóla
1-PRES.CJ-gather.shellfish
int. ‘she is gathering shellfish’
- (693) CJ ntáály’ oolá ni-n-aá-váhá ápáp’ áwe
1.medal 1.DEM.I 1PL-PRES.CJ-2-give 2.father 2.POSS.1
‘this medal we give to her dad’
- (694) CJ mwi-m-phéélá-ni?
2.PL-PRES.CJ-want-what
‘what do you want?’
- (695) a. CJ ki-l-límá n’ ihipá
1SG-PRES.CJ-cultivate with 9.hoe
b. DJ ki-náá-límá n’ ihipá
1SG-PRES.DJ-cultivate with 9.hoe
‘I am cultivating with a hoe’
- (696) a. CJ eshímá e-ruw-iy-é tsiítsáale / nañnáanová
9.shima 9-stir-PASS-PERF.CJ like.that / right.now
b. DJ eshímá yoo-rúw-íya tsiítsáale / nañnáanová
9.shima 9.PERF.DJ-stir-PASS like.that / right.now
‘(the) shima was cooked like that/right now’

- (697) a. CJ ki-caw-el-alé mparása
 1SG-run-APPL-PERF.CJ 18.fortress
 ‘I ran to the fortress’
- b. CJ * ki-caw-el-alé mparasá
 1SG-run-APPL-PERF.CJ 18.fortress
- c. CJ ni-n-rúpá wakhaámá-ni
 1PL-PRES.CJ-sleep 16.bed-LOC
 ‘we sleep in a bed’

One adverb which behaves differently is *saána* ‘well’. This adverb cannot follow a CJ verb form (with or without PL), as can be seen in the question-answer pair in (698): the CJ answer is ungrammatical (698b), and instead a DJ or habitual verb form is chosen (698d,e). Since such a question-answer pair is generally a very suitable environment to use the CJ form, I assume that *saána* is subject to a specific syntactic constraint and is for that reason incompatible with the CJ verb form.

- (698) a. CJ o-n-tthává tsayi?
 1-PRES.CJ-plait how
 ‘how does she plait?’
- b. CJ * o-n-tthává saána
 1-PRES.CJ-plait well
- c. CJ * o-n-tthává saaná
 1-PRES.CJ-plait well
- d. DJ o-náá-tthává saána
 1-PRES.DJ-plait well
- e. o-íní-tthává saána
 1-HAB-plait well
 ‘she plaits well’

5.2.3 Difference in meaning: not TAM

Having established the basic formal properties of the CJ and DJ verb forms, the question remains what the difference in meaning is between the two. Buell (2005) convincingly argues for Zulu that the difference is not in the semantics of tense. In Makhuwa, too, the difference is not in the TAM semantics, although some informants sensed a tense difference between the CJ and DJ present conjugation (not in the other conjugations). When a difference in tense was indicated by an informant, the DJ form was translated as

a near future (699b), and the CJ as a simple present or present progressive (699c), but with focus on the verb ‘to speak’. In (699a), the habitual tense is also given, since this is the most normal way to ask the question. For (699b) a situation described for proper use is when the hearer wants to pay a visit to someone who does not speak Makhuwa.

- (699) a. ekúnyá o-ñní-tsúwéla olávúla?
 9.Portuguese 2SG-HAB.PRES-know 15.speak
 ‘Portuguese, do you know how to speak it?’
- b. DJ ekúnyá o-náá-tsúwéla olávúla?
 9.Portuguese 2SG-PRES.DJ-know 15.speak
 ‘Portuguese, will you know how to speak it?’
- c. CJ ekúnyá o-n-tsúwél’ olavulá?
 9.Portuguese 2SG-PRES.CJ-know 15.speak
 Portuguese, do you know how to *speak* it?’

However, the indicated meaning and the translation of the DJ verb form are variable, as is illustrated in the two sentences from the same story in (700). Both sentences contain a DJ verb form, but the first sentence has a present translation and meaning, whereas the second indicates a future event. The same applies to the sentences in (701). The meaning and translation of the CJ and DJ verb forms as indicated by the informants suggests that the interpretational difference is not (only) in TAM semantics.

- (700) a. numwáár’ uulé o-náa-wa (H2.32)
 1.virgin 1.DEM.III 1-PRES.DJ-come
 ‘that girl comes/is coming’ (Pt. ‘quando está a vir’)
- b. hwíira o-’l-lípelel-é o-náa-wa (H2.68)
 NARR-do 1-1-wait-OPT 1-PRES.DJ-come
 ‘and she said: “wait for her, she will come”’ (Pt. ‘há de vir’)
- (701) a. nyû | n-náá-lávúl-átsá paáhi ’mmo (H9.5)
 2PL.PRO 2PL-PRES.DJ-speak-PLUR only 17.DEM.II
 ‘you, you are just talking there’ (Pt. ‘está a falar’)
- b. mí etsítsi | ki-náá-vará | ki-náá-khúura (H9.6)
 1SG.PRO 9.owl 1SG-PRES.DJ-grab 1SG-PRES.DJ-chew
 ‘me, the owl, I will catch it and eat it’ (Pt. ‘vou apanhar/comer’)

As a second argument, in a question-answer pair the tense of the verb (and very often aspect and mood as well) is normally the same in the question and the answer. In

(702) the verb in the question is necessarily CJ, while the answer is only grammatical with a DJ verb form. This again suggests that the two forms are in the same tense.

- (702) a. CJ ashínúni yíir-ál' ésheeni?
 2.DIM.birds 2.PAST.do-PERF.CJ 9.what
 'what did the birds do?'
- b. DJ ashínúni yaahí-váva
 2.DIM.birds 2.PAST.PERF.DJ-fly
 'the birds flew'

Third, the fact that transitive verbs take a CJ verb form and intransitive verbs take a DJ verb form in the context of the same question also suggests that the difference between the two forms is not one of tense, aspect or mood (703a-c). The difference might now seem to be one of transitivity. However, since all transitive and intransitive verbs have both forms in all conjugations, this cannot be the case either. Also remember that CJ verb forms can be followed by adverbs, locative phrases etc., as presented in (695) to (697).

- (703) a. CJ o-n-íir' ésheeni?
 1-PRES.CJ-do 9.what
 'what is she doing?'
- b. CJ o-n-lép' épapheló
 1-PRES.CJ-write 9.letter
 'she is writing a letter'
- c. DJ o-náá-lépa
 1-PRES.DJ-write
 'she is writing'

Fourth, the CJ form is sometimes suggested as a correction of an ungrammatical DJ form in the same tense, and vice versa. Example (704a), with a DJ verb form, is ungrammatical with an exclusive interpretation of the object. Instead, the informants suggested (704b), with a CJ form. In the same way, the ungrammatical CJ form in (481a) was replaced by the grammatical DJ in (481b).

- (704) a. DJ * ko-ń-thótola Laúra paáhi
 1SG.PERF.DJ-1-visit 1.Laura only
 int. 'I visited only Laura'

- b. CJ ki-n-thotol-alé Laura paáhi
1SG-1-visit-PERF.CJ 1.Laura only
'I visited only Laura'
- (705) a. CJ * enyómpé tsi-n-khúura
10.cows 10-PRES.CJ-chew
- b. DJ enyómpé tsi-náá-khúura
10.cows 10-PRES.DJ-chew
'the cows are eating'

Based on these arguments I conclude that the difference between CJ and DJ verb forms is not in the TAM semantics.

5.2.4 Special effect: "Immediate After Verb position"

In order to find out what the exact difference in meaning between the two forms is, if not TAM. This section examines the elements in the domain following the CJ verb form. A remarkable characteristic of the CJ form is that a *wh*-word can only *directly* follow it, and nothing is allowed in between the CJ verb form and the *wh*-word. The questions in (706) and (707) are only grammatical if the question word, *eshéeni* 'what' or *tsayí* 'how', respectively, immediately follows the CJ verb form.

- (706) a. CJ o-n-koh-al' éshéeni Apákhári?
2SG-1-ask-PERF.CJ 9.what 1.Apakhari
'what did you ask Apakhari?'
- b. CJ * onkohalé Apákhári eshéeni
- (707) a. CJ o-n-rúw-áka tsayi eshíma?
2SG-PRES.CJ-stir-DUR how 9.shima
'how do you make shima?'
- b. CJ * onrúwáka eshímá tsayí?

A second hint at the special status of the position immediately following the CJ form is the fact that only the first element after the CJ form undergoes predicative lowering. In both sentences in (708) the first element following the verb, whether direct or indirect object, has the tone pattern LLH, whereas the second still has its LHL form, which it also has in its citation form.

- (708) a. CJ ni-m-váhá maatsí enúni
 1PL-PRES.CJ-give 6.water 10.birds
 ‘we give the birds water’
- b. CJ ni-m-váhá enuní maatsí
 1PL-PRES.CJ-give 10.birds 6.water
 ‘we give the *birds* water’

Thirdly, not only *wh*-words, which are inherently associated with focus, but also nouns modified by the focus particle *paáhi* ‘only’ may occur only in the position immediately following the verb. This is shown in (709a), where inversion of the two objects leads to a much less acceptable sentence (709b). The degraded grammaticality of (709b) is not due to the inversion of direct and indirect object, since these are allowed in any order (see (708)).

- (709) a. CJ Maríyá o-m-vah-alé [ekamitsa paáhi] [Apútaála]
 1.Maria 1-1-give-PERF.CJ 9.shirt only 1.Abdallah
 ‘Maria gave Abdallah only a shirt’
- b. CJ ?? Maríyá omvahalé [Apútaáala] [ekamitsa paáhi]

In summary, the position immediately following the CJ verb form is marked by a special tone pattern, and it seems to be associated to the focus function. In general this position is linked to a CJ verb form. Although the optative conjugation in Makhuwa does not display a morphological CJ/DJ difference in TAM affixation or a tonal alternation on the element following the verb, there is still the effect that focused elements must immediately follow the verb. The optative is the only conjugation apart from the four basic conjugations that can combine with a *wh*-word. As in the basic conjugations, nothing is allowed to intervene between the verb and the *wh*-element, as exemplified in (710) and (711).

- (710) a. ni-m-váh-e eshéeni Aráanya?
 1PL-1-give-OPT 9.what 1.Aranha
 ‘what shall we give Aranha?’
- b. * nimváhe Aráanya eshéeni?
- (711) a. k-ííthh-el-e vayi ekokhóla?
 1SG-pour-APPL-OPT where 9.rubbish
 ‘where shall I put the rubbish?’

- b. * kítthele ekokhóla vayi?

The special importance of the Immediate After Verb position (IAV) was noted in Aghem by Watters (1979), who introduced this term. As also mentioned in chapter 3, he shows that in Aghem, a Grassfields Bantu language, a focused element must occur in IAV position. In (712a) the adverbial clause ‘in the farm’ is in its typical sentence-final position. When it is the answer to a question, it is considered the focus of the sentence, and hence it occurs in IAV position (712c). Note that the question word *ghé* ‘where’ (712b) is also in IAV position, as question words are assumed to be inherently focused.

Aghem (Watters 1979:147)

- (712) a. fíl á m̀d zí kí-bé án 'sóm
 friends SM P2 eat fufu in farm
 ‘the friends ate fufu in the farm’

- b. fíl á m̀d zí ghé bé-'kó
 friends SM P2 eat where fufu
 ‘where did the friends eat fufu?’

- c. (fíl á m̀d zí) án 'sóm (bé-'kó)
 friends SM P2 eat in farm fufu
 ‘the friends ate fufu *in the farm*’

5.2.5 Subject not in IAV, but pseudocleft

As shown above, in Makhuwa direct and indirect objects as well as adjuncts can occur in IAV position. Subjects, however, cannot occur immediately after a CJ verb form. What may superficially look like a CJ verb form followed by a subject, is actually a copular construction (pseudocleft, (713)). The following explanation was published earlier in Van der Wal 2008. The “conjoint” verb form is formally equal to a relative participle, which is translated as a headless relative clause, “what comes out” in (713). The postverbal logical subject undergoes PL, just like after a CJ verb form, but now functions as a nominal predicate (“it is ashes”). I first discuss the form of the relative verb and then explain the nominal predication in Makhuwa in order to see how the interpretation as a pseudocleft falls out.

- (713) e-n-khúma ettuurá (H11.39)
 9-PRES-exit.REL 9.ashes.PL
 ‘what comes out is ashes’

In Makhuwa relative clauses the CJ/DJ distinction is absent, but the relative verb is in the affirmative and negative formally equal to the CJ verb form, as illustrated in

(714b) and (714c) (see Katupha 1983, van der Wal to appear and chapter 2, section 2.6.6 in this thesis). No special relative morphology, such as a relative complementiser or a prefix on the verb, is used to form a subject relative clause in Makhuwa.

- (714) a. DJ nlópwána oo-thípa
 1.man 1.PERF.DJ-dig
 ‘the man dug’
- b. CJ nlópwána o-thip-alé nlittí
 1.man 1-dig-PERF 5.hole
 ‘the man dug a hole’
- c. REL nlópwána o-thip-alé
 1.man 1-dig-PERF.REL
 ‘the man who dug’

A headless relative is formed by simply omitting the head noun. This is illustrated in the headless subject relative in (715c), which only differs from the relative in (715b) in the absence vs. presence of the head noun of the relative, *mwanámwáne* ‘child’. What looks exactly like a CJ verb form may thus also be a headless relative verb.

- (715) a. DJ mwanámwáne o-hoó-khwa
 1.child 1-PERF.DJ-die
 ‘a/the child died’
- b. REL mwanámwáne o-khwa-alé o-rí owáani
 1.child 1-die-PERF.REL 1-be17.home
 ‘the child who died is at home’
- c. REL o-khwa-alé o-rí owáani
 1-die-PERF.REL 1-be17.home
 ‘the one who died is at home’

The tonal process called Predicative Lowering, as discussed above, is applied to the object after a CJ form. However, it is also used to change a noun into a nominal predicate (716; see also chapter 2, section 2.6.4 and van der Wal 2006b).

- (716) mwanámwáne ‘child’ (LHHL)
 mwanamwáne ‘it is a child’ (LLHL)

Considering these properties of relativisation and predication in Makhuwa, the combination of a verb that resembles a CJ form and a following (tonally lowered) “subject” is interpreted as a pseudocleft, as illustrated in (717). The syntactic construction is copular, consisting of a headless relative clause and a predicative noun.

- (717) “CJ” o-khw-aalé mwanamwáne
 1-die-PERF.REL 1.child.PL
 ‘the one who died is a/the child’

Further evidence for the copular construction analysis comes from the use of a copula in the predicate. Most nouns take the PL form when used predicatively, which is the same tonal form they take when appearing after a CJ verb form. However, nouns which require a copula to function as a predicate, such as question words and pronouns, may undergo PL, but do not take this copula after a CJ form (718). The fact that they do take a copula in sentences like (719) shows that the logical subject is predicative, and the construction must be analysed as a copular construction.

- (718) CJ mwi-n-tthar-alé páni?
 2PL-1-follow-PERF.CJ 1.who
 ‘who did you follow?’

- (719) a. o-wa-alé ti páni?
 1-come-PERF.REL COP 1.who
 ‘who came?’, lit. ‘the one who came is who?’

- b. o-wa-alé t’ uúle
 1-come-PERF.REL COP 1.DEM.III
 ‘he is the one who came’, lit. ‘the one who came is that one’

Yet another argument is found in the scope of negation with a quantified noun. If this were a construction with the logical subject in the IAV position, that subject would have to remain in a position lower than the verb in the syntactic structure. This implies that it should fall under the scope of negation in case the verb is negative. If the “subject” is modified by “all”, the reading should be “not all”. The example in (720) shows that this is not the case: the quantified noun takes scope over the negation, and the reading is “all>not”. This shows that the logical subject cannot be in the IAV position and must be in another position. In the same way, the negative verb in (721a) takes scope over the noun modified by “only”, and the reading is “only not”. The reading “not only” is obtained when using a DJ form (721b), see also chapter 3, section 3.4.2. The ungrammaticality of the negative polarity item in (722) also shows that the noun is not c-commanded by the verb, and that this construction cannot be analysed as a CJ verb form

with a following subject. An analysis as copular construction predicts the correct readings in (720)-(722).

- (720) CJ tsi-hi-tsiv-álé epoolu ts-ootéene
 10-NEG-be.sweet-PERF.REL 10.cakes.PL 10-all
 ‘all the cakes were not tasty’
- (721) a. CJ e-hi-ki-moñr-é ekaneta paáhi
 9-NEG-1SG-fall-PERF.REL 9.pen only
 (tsoo-kí-móra éthhú ts-íncééne)
 10.PERF.DJ-fall 10.things 10-many
 ‘what I didn’t drop was just the pen (I dropped other things)’
- b. DJ khi-ki-mór-ále ekanétá paáhi
 NEG.9-1SG-fall-PERF.DJ 9.pen only
 (n’ iíthhú tsi-kíná tsoo-kí-móra)
 (and 10.things 10-other 10.PERF.DJ-1SG-fall)
 ‘I didn’t drop just my pen (other things fell, too)’
- (722) CJ * o-hi-wa-álé ne ntthú
 1-NEG-come-PERF.CJ not.even 1.person.PL
 int. ‘nobody came’

In conclusion, the VS order with a CJ verb form is a pseudocleft. One might think that a normal SVO sentence with a CJ verb form can also be interpreted as a pseudocleft. In an SVO sentence with a CJ verb form the object has a PL form. However, it is clear that sentences like (723a) cannot be pseudoclefts. First, if the verb is relative, the prefix on the verb is in the same class as the predicative noun, as in (723b), where the prefix and the predicative noun are in class 5. Second, in an object pseudocleft, the subject is expressed on the verb as a possessive (-*aaka* in (723b)).

- (723) a. ki-m-phéélá noocé
 1SG-PRES.CJ-want 5.egg
 ‘I want an egg’
- b. ni-m-phéél-ááká noocé
 5-PRES-want.REL-POSS.1SG 5.egg.PL
 ‘what I want is an egg’

In conclusion, the subject cannot occur in the IAV position. For elements that can occur lower than the verb, this position immediately following a CJ verb form appears to be special, in that it is used for elements associated with focus. In the next section the correlation between focus and the CJ and DJ verb forms is examined.

5.3 Focus hypotheses

The difference in meaning between the CJ and DJ verb form is not in the TAM semantics, so there must be some other interpretational difference. It was suggested that there is a relation between the IAV position and focus. The term “focus” in the previous section and the first part of this section is used in a broad sense, not specifically as exclusive. It was already shown that a *wh*-element can only occur immediately after a CJ verb form. Examples (724)-(726) further show that any question word, whether argument or adjunct, is ungrammatical after a DJ form (see also section 2.3.9 of chapter 2).

- | | | | |
|-------|----|----|--|
| (724) | a. | CJ | o-n-c' éshéeni? |
| | | | 2SG-PRES.CJ-eat 9.what |
| | | | ‘what are you eating?’ |
| | b. | DJ | * o-náá-ca eshéeni? |
| | | | 2SG-PRES.DJ-eat 9.what |
| (725) | a. | CJ | waa-khum-álé vayi? |
| | | | 2SG.PAST-exit-PERF.CJ where |
| | | | ‘(from) where did you leave?’ |
| | b. | DJ | * waahí-khúma vayi? |
| | | | 2SG.PAST.PERF.DJ-exit where |
| (726) | a. | CJ | ni-n-iípá tsayi? |
| | | | 1PL-PRES.CJ-sing how |
| | | | ‘how do we sing?’ |
| | b. | DJ | * ni-ná-mwiipa tsayi? ⁴⁰ |
| | | | 1PL-PRES.DJ-sing how |

A second characteristic is that answers to these *wh*-questions also take a CJ verb form; a DJ verb form is not appropriate in an answer to an object question (727). Question-answer pairs are an oft-used test to locate the focus of a sentence. The part of

⁴⁰ This could be grammatical in the rhetorical interpretation “how is it possible that we sing?” (if our main singer is not here, for example).

the answer that differs from the question, or that replaces the question word, is taken to contain new information and thus be focused, in a broad sense. Since *wh*-words are also assumed to have an inherent focus, this suggests a relation of focus with the CJ/DJ alternation.

- (727) a. CJ o-lomw' éshéeni?
 1-fish.PERF.CJ 9.what
 'what did he catch?'
- b. CJ o-lomwé ehópá
 1-fish.PERF.CJ 9.fish
 'he caught fish'
- c. DJ # oo-lówá ehópa
 1.PERF.DJ-fish 9.fish

After his brief description of the choice between the weak (CJ) and strong (DJ) form of the verb, Katupha (1983:126) explains the difference in meaning as follows:

Thus, the difference between strong and weak is that of focusing. A strong [disjoint] conjugation focuses on the action/event itself, while weak [conjoint] conjugations focus on the object or the circumstances under which the event takes place (the adjunct).

This characterisation can actually be split up into two separate hypotheses, which are formulated in Buell (2006:16) as the "Verb Focus Hypothesis" and the "Postverbal Term Focus Hypothesis". Both are discussed in turn below.

(728) Verb Focus Hypothesis:

The verb appearing in a disjoint form is in focus, while a verb appearing in a conjoint form is not.

(729) Postverbal Term Focus Hypothesis:

The element following a conjoint form is in focus, while the element following a disjoint form is not in focus.

5.3.1 Verb Focus Hypothesis

The two most evident contexts in which the verb has some kind of focus, or is at least very salient, are when the lexical verb is contrasted (730), and when the tense of the verb is contrasted (731). In these situations the DJ form is used in Makhuwa. The CJ form is ungrammatical in these contexts, or yields a different interpretation (to which I come back in section 5.3.5).

- (730) nki-ń-rúpa nkaláwá-ni ki-náá-lówá (nkaláwáni)
 NEG.1SG-PRES.DJ-sleep 18.boat-LOC 1SG-PRES.DJ-fish
 ‘I don’t sleep on the boat, I fish (there)’

- (731) epúr’ íyo n-náá-hítá áú moo-híta?
 9.goat 9.DEM.II 2PL-PRES.DJ-kill or 2PL.PERF.DJ-kill
 ‘that goat, are you killing it or have you killed it?’

In (730) and (731) the verb is interpreted as very salient, but it is also sentence-final (see the discussion in chapter 4, section 4.4.2). In both examples the speakers made sure that the salient verb is sentence-final: in (730) the first clause contains the negative verb, and the contrasted verb is sentence-final; in (731) the verb is sentence-final by left-dislocation of the object. McCormack (2006) notices a similar effect in Tswana. The correlation between the DJ verb form and focus is not necessarily so strong and direct, since the position of the focused verb relative to an object also seems to play a role.

Furthermore, the Verb Focus Hypothesis does not give the correct prediction for examples like (732)-(733) where the verb is not the element with the focus function, but it still has a DJ form. Makhuwa uses a VS order inthetic utterances, where a situation (732) or referent is presented (733); see also chapter 4, section 4.3.2. Verb and subject are equally salient in such a construction, and the “focus” in these sentences is the whole proposition.

- (732) DJ e-náá-ki-weréyá erétta (H12.51)
 9-PRES.DJ-1SG-hurt 9.disease
 ‘I have a disease’

- (733) DJ o-hoó-wá khutsúpa (H5.8)
 1-PERF.DJ-come 1.hyena
 ‘there came Hyena’

Similarly, it is not very plausible that a DJ verb form with an object following is in focus, at least not in examples like (734). The narrator is simply giving an account of what the old woman in the story does in the preparations for the girl’s visit. Although it is remarkable that a dog is being dressed up, the headscarf, the cloth and the blouse (and in the next sentence the earrings and lipstick as well) are just as salient as the verb “dress up” is. The whole predicate functions as the comment, and the verb does not have a focal interpretation.

- (734) DJ o-ń-wár-íhá mwalápw’ ááwé nlésó ekúwó epulútsa
 1.PERF.DJ-1-wear-CAUS 1.dog 1.POSS.1 shawl 9.cloth 9.blouse
 ‘she dressed her dog in a headscarf, a cloth, a blouse...’ (H2.29)

Taking these examples and their interpretation into consideration, it can be concluded that the first part of the Verb Focus Hypothesis, which claims that the DJ verb form is in focus, does not account for the Makhuwa data in a principled way. The second part, which claims that the CJ verb is not in focus, does not hold either. When the VP is in focus, as in (735b), the verb is part of the focus, and the CJ verb form is used.

- (735) a. CJ Mariámú iir-alé-ní?
 1.Mariamú 1.do-PERF.CJ-what
 ‘what did Mariamu do?’
- b. CJ Mariámú o-puputth-alé ehopá
 1.Mariamú 1-scale-PERF.CJ 9.fish
 ‘Mariamu scaled fish’

5.3.2 *Postverbal Term Focus Hypothesis*

Examples with *wh*-words and answers following a CJ verb form, like (724)-(727), form a clear argument in favour of the Postverbal Term Focus Hypothesis. However, depending on the definition of focus, the sentence in (736) could be seen as a counterargument. The story from which the sentence is taken tells us that the protagonist killed a goat. The goat and the killing are both new to the story, but the verb is in its DJ form. Apparently, being new to the discourse is not sufficient to count as the focus of the sentence and appear after a CJ form. This thought is taken up in the next subsection.

- (736) DJ ólé nlópwán’ oolé wa-hal-aly-ááwé
 1.DEM.III 1.man 1.DEM.III 16-stay-PERF.REL-POSS.1
 oh-i’vv’ épúri (H3.51)
 1.PERF.DJ-kill 9.goat
 ‘that man, when he stayed behind, killed a goat’

Another possibly problematic case mentioned for the other hypothesis is a sentence with wide VP-focus, which takes a CJ form in Makhuwa. One could take that to mean that the VP is in focus and not the object. When the VP is questioned, the answer can only be CJ in order to be felicitous (737), and the same is true for a reaction to a why question, where the focus is also on the VP (738). Not only the element following the CJ form is in focus, but the whole VP including the verb. This can be explained by focus projection, as shown in the next section.

- (737) a. CJ o-n-iír’ ésheeni?
 1-PRES.CJ-do 9.what
 ‘what does he do?’

- b. CJ o-n-túmih' epolashá
1-PRES.CJ-sell 10.cookies
'he sells cookies'
- c. DJ # o-náá-túmih' epolásha
1-PRES.DJ-sell 10.cookies
- (738) a. CJ a-n-uú-wére-elá-ní esheeni matát' áu?
6-PRES.CJ-2PL-hurt-APPL-PLA 9.what 6.hands 6.POSS.2SG
'why do your hands hurt?'
- b. CJ kaa-shílá ekutté
1SG.IMPF.CJ-grind 10.beans
'I have been grinding beans'
- c. DJ # kaánáa-shílá ekútte
1SG.IMPF.DJ-grind 10.beans

Summarising, the Verb Focus Hypothesis cannot be kept, and the Postverbal Term Focus Hypothesis may hold in Makhuwa, but the conditions under which it is true need to be studied. This is the topic of the next subsection.

5.3.3 *Exclusivity*

The possibility of having a DJ form with new information on the object (736) requires a narrower definition of focus, if we want to keep (some version of) the Postverbal Term Focus Hypothesis. As mentioned in chapter 3, what seems to be relevant for focus in Makhuwa is not new information, but exclusivity. This is what is encoded by the CJ/DJ alternation. Specifically, it turns out that what immediately follows a CJ form has an exclusive interpretation. By "exclusive" I mean that a referent is selected to the exclusion of some alternative. My notion of exclusivity is consistent with the basic idea of alternative semantics, as in Rooth (1996), where a focused referent has a focus value by comparison with a set of alternatives. The referent of the element marked as exclusive is identified as the referent for which the proposition holds, and there is at least *some* other referent for which it does not hold. It can be the case that *all* other referents are excluded, which would be an exhaustive reading, but I cannot prove that this is always the case. For this reason I use "exclusive" and not "exhaustive". Furthermore, I use the term "contrast" to refer to a contrast made explicit in the context, and not to the contrast of the identified referent with the alternative set. The examples illustrating the exclusive interpretation often also have an exhaustive or contrastive interpretation, but this is not the unifying interpretation in all cases (whereas exclusivity is). The referent of the element immediately following the CJ verb form is thus characterised by an exclusive interpretation. There are several arguments for this claim.

The clearest arguments are in the use of focus particles “only” and “even”. Although their implications are quite different, both particles are analysed as focus particles: they require a focus constituent in their environment and do not have an influence on the propositional content of the sentence (König 1991, Rooth 1992, among many others). While in other languages the two particles may behave the same in terms of the linguistic expression (e.g. the interaction with stress), in Makhuwa the two function as opposites. When the object is modified with *paáhi* “only”, the CJ verb form must be used, and DJ is ungrammatical (739a,b). The object now gets an exclusive reading, which is confirmed and reinforced by the spontaneous adding of a negative clause by the informant (739c). The situation in (739c) was explained as somebody looking for octopus and getting this answer at the fish market.

- (739) a. CJ o-lomw-é ehopa paáhi
 1-fish-PERF.CJ 10.fish only
 ‘he caught only fish’
- b. DJ # oo-lówá ehópá paáhi⁴¹
 1.PERF.DJ-fish 10.fish only
 int. ‘he caught only fish’
- c. CJ ki-low-alé ehopa paáhi
 1SG-fish-PERF.CJ 10.fish only
 nki-var-ál’ éphwétsa
 NEG.1SG-grab-PERF.DJ 9.octopus
 ‘I caught only fish, I didn’t catch octopus’

Second, when the object is modified by the focus particle *hatá* “even”, the CJ form is ungrammatical (740a), and only the DJ form can be used (740b). Moreover, the sentence with the CJ form was corrected to (740c), with the exclusive focus particle “only”. Since the particle “even” implies that there have been many more instances of the same event with other objects, it is incompatible with an exclusive reading.

- (740) a. CJ * ki-n-thotol-alé hatá Láúra/Laurá
 1SG-1-visit-PERF.CJ even 1.Laura
 int. ‘I visited even Laura’
- b. DJ ko-ń-thótólá hatá Láúra
 1SG.PERF.DJ-1-visit even 1.Laura
 ‘I visited even Laura’

⁴¹ This sentence is in fact possible when the particle is simply added at the end; the interpretation is then better represented in the translation “I caught fish, and that’s it”.

- c. CJ ki-n-thotol-alé Laura paáhi
 1SG-1-visit-PERF.CJ 1.Laura only
 ‘I visited only Laura’

The ungrammaticality of (740a) cannot be due to the fact that the modifier *hata* ‘even’ occurs before the noun, opposite to *paahi* ‘only’, which follows it, because another prenominal modifier is also allowed after a CJ verb form. The example in (739a) could also be formulated as in (741), with the modifier *so* ‘only’, which is borrowed from Portuguese. This borrowing and use is probably specific for Makhuwa-Enahara and cannot be generalised to other variants of Makhuwa. Nevertheless, the example shows that it is the exclusive interpretation rather than the internal make-up of the DP which determines the form of the verb.

- (741) CJ o-lomw-e so ehopa
 1-fish-PERF.CJ only 9.fish
 ‘he caught only fish’

Third, an object quantified by *kata* ‘every’ is ungrammatical following a CJ verb form (742), unless it is restricted by a relative clause. “Every” is not exclusive, but with a restrictive relative clause it is possible to form a reference set, and hence to exclude alternative objects. Indeed the implication of (743) is that Casimo did not watch any movie other than the ones bought by his brother.

- (742) a. CJ *o-lawih-alé kat’ epoólu/epoolú
 1-taste-PERF.CJ every 9.cake
 int. ‘he tasted every cake’

- b. DJ oo-láwihá kat’ epoólu
 1.PERF.DJ-taste every 9.cake
 ‘he tasted every cake’

- (743) CJ Kaásimú oon-alé kút’ éfiílimé
 1.Casimo 1.see-PERF.CJ every 9.film
 e-thum-iy-é n’ itáát’ ááwe
 9-buy-PASS-PERF.REL by 1.brother 1.POSS.1
 ‘Casimo watched every film bought by his brother’

Fourth, when establishing an overt contrast between two objects, the CJ form is preferably used, for example in alternative questions (744). In (745) it is shown that the DJ form is ungrammatical in a negative alternative question. The same is illustrated in (746): the questions come from the same story, but the DJ form is used in the neutral

yes/no-question in (746a), whereas the CJ form is used when the question offers alternatives (746b).

- (744) CJ o-m-phéélá ekáfé o-m-phéélá eshá?
 2SG-PRES.CJ-want 9.coffee 2SG-PRES.CJ-want 9.tea
 ‘do you want tea or coffee?’
- (745) a. CJ Kanélá o-hi-thum-álé eshá óú ekáfé?
 1.Canela 1-NEG -buy-PERF.CJ 9.tea or 9.coffee
- b. DJ ?? Kanélá kha-thum-álé ésha óú ekáfé?
 1.Canela NEG.1-buy-PERF.DJ 9.tea or 9.coffee
 ‘didn’t Canela buy tea or coffee?’
- (746) a. DJ n-náá-phéélá o-ń-thélá? (H2.15)
 2PL-PRES.DJ-want 15-1-marry
 ‘do you want to marry her?’
- b. CJ mwi-m-phéélá o-n-thelá mwi-m-phéél’ oshupishú?
 2.PL-PRES.CJ-want 15-1-marry 2PL-PRES.CJ-want 15.bother
 ‘do you want to marry her, or do you want to bother?’ (H2.17)

Fifth, the CJ form is used when correcting the element following the verb. When someone states that a certain woman ate beans, as in (747a), a possible reaction can be the one in (747b), correcting the information given before. Since the contrastive and corrective interpretations in these situations necessarily have an element of exclusion, I conclude that exclusivity is the property that unites these occurrences and interpretations of the CJ verb form.

- (747) a. nthíyáná o-ho-ń-cá fízyáu
 1.woman 1-PERF.DJ-1-eat 1.beans
 ‘the woman ate beans’
- b. kha-n-cá-ále fízyáu o-ca-alé nramá
 NEG.1-1-eat-PERF.DJ 1.beans 1-eat-PERF.CJ 3.rice
 ‘she didn’t eat beans, she ate rice’

A sixth argument is found in the interpretation of the object following the CJ verb form as compared to a cleft or copular construction. I presented the following situation to my informants: you have caught three types of fish, and you say one of the sentences in (748). All three of the sentences were found illogical in that situation, and the informants explained that apparently you want to keep it a secret that you have also

caught other types of fish, and people are not allowed to buy those fish. By using the CJ verb form in (748a) you indicate that *ntare* is the only type of fish that you caught, and the implication is thus that the object is exclusive after a CJ verb form. The cleft sentence in (748b) and the copular construction in (748c) have the same implication of exclusivity of the type of fish caught, just like in English (É. Kiss 1998).

- (748) a. ki-low-alé enttaaré
 1SG-fish-PERF.CJ 9.ntare
 'I caught ntare'
- b. enttaaré e-low-aly-áaka
 9.ntare.PL 9-fish-PERF.REL-POSS.1SG
 'it is ntare that I caught'
- c. enttaaré t' í-lów-aly-áaka
 9.ntare COP 9-fish-PERF.REL-POSS.1SG
 'ntare is what I caught'

A final example of exclusivity is found in the comparison of the examples given earlier in (699), and repeated here. The normal way to ask somebody whether he or she knows how to speak Portuguese is the habitual form given in (749a). When replacing the habitual (DJ) conjugation with a present tense CJ verb form, as in (749b), the interpretation is exclusive, and the sentence "as opposed to writing" was spontaneously added when discussing this sentence with my informants.

- (749) a. ekúnyá o-ńńi-tsúwéla olávúla?
 9.Portuguese 2SG-HAB-know 15.speak
 'Portuguese, do you know how to speak it?'
- b. ekúnyá o-n-tsúwél' olavulá?
 9.Portuguese 2SG-PRES.CJ-know 15.speak
 (olépá khu-ń-tsúwéla)
 15.write NEG.2SG-PRES-know.DJ
 'Portuguese, do you know how to *speak* it? (writing you don't know)'

On the basis of these data I conclude that exclusivity is the (most) relevant notion in Makhuwa for the interpretation and use of the CJ verb form in the IAV position. Exclusivity can be weak or strong. Weak exclusivity entails that there is *some* other referent for which the proposition does not hold, whereas strong exclusivity (more commonly named exhaustivity) entails that the proposition does not hold for *all* other referents. In Makhuwa the position immediately after the CJ verb form at least indicates exclusivity and may also indicate exhaustivity. Sometimes the exhaustive reading is

caused by a particle “only”, or it is reinforced by adding a negative sentence “and nothing else” (750), but in general it is difficult to confirm such an exhaustive interpretation. For example, the answer “tea” in (751b) excludes the alternative “coffee” given in the question in (751a), but it is unknown whether the answer entails that the speaker wants nothing else but tea.

- (750) eshima paáhi e-ca-aly-áaka
 9.shima only 9-eat-PERF-POSS.1SG
 etthw’ íi-kíná naáta
 9.thing 9-other no
 ‘I ate only shima, and nothing else’
- (751) a. CJ o-m-phéélá ekafé o-m-phéélá eshá?
 2SG-PRES.CJ-want 9.coffee 2SG-PRES.CJ-want 9.tea
 ‘do you want tea of coffee?’
- b. CJ ki-m-phéélá eshá
 1SG-pres.CJ-want 9.tea
 ‘I want tea’

Tests to check an exhaustive reading like those used by É. Kiss (1998) turned out to be of little use in my fieldwork situation. In one of the tests the exhaustivity of an object is checked by adding a sentence which contains another object, for example: *Mary bought a hat. And she also bought a scarf*. If the second sentence is logically possible after the first, the object in the first sentence is not interpreted as exhaustive. However, it can be hard to explain (for the researcher) and understand (for the informant) the distinction between grammaticality or logic, and the real world. “Of course Mary could have bought something else after she bought a hat”, the informant reasons, “if she had enough money she could have gone back to the market”. Nevertheless, the example of the three types of fish in (748) did work out well, and indicates at least (weak) exclusivity, and probably even exhaustivity.

Taking exclusivity as the relevant property and interpretation for the element in IAV position implies that *wh*-words and answers to those questions are also interpreted as exclusive. This is in accordance with the Gricean maxims of quantity and manner: “make your contribution to the conversation as informative as necessary” and “avoid ambiguity” (Grice 1975). When someone asks about an object, he or she wants to have a complete answer. Since the Makhuwa grammar provides a means to encode the completeness of the answer, namely, the *CJ/DJ* alternation, this should be used in order to comply with the rules for good conversation.

Apart from the semantic requirement that what follows the *CJ* verb form is interpreted as exclusive, the syntactic requirement that the *CJ* verb form should not be sentence-final is also at work. Examples are the *CJ* verb form followed by a cognate

object, or light verbs like in (752), where the interpretation as exclusive is not primary, but the presence of the object *ntekó* ‘work’ is necessary and sufficient to use the CJ verb form.

- (752) o-m-vára ntekó
 1-PRES.CJ-grab 3.work
 ‘he is working’

5.3.4 Focus projection

As mentioned in section 5.3.2, VP focus could be viewed as a possible counterargument for the Postverbal Term Focus Hypothesis, whether based on new information or on exclusivity. It is not only the element after the verb, but the whole VP which is focused. Still, the hypothesis only states that the element following the CJ verb form is in focus, not that everything else is not in focus. The fact that in an answer to a VP question (“what did he do?”) the whole VP can be interpreted as exclusive, is not as such a counterargument for the hypothesis. After all, post-CJ element is also still part of the focus.

This idea that the postverbal term only needs to be *part of* the focus, could be implemented in two different ways. One is by means of focus projection. Selkirk (1995:555) proposes a rule of focus projection as in (753) to explain the phenomenon that sentence stress on one word can mark focus on a unit larger than that word (at least in English). When part of a phrase is focused (F-marked), then the focus can project up and the whole phrase can be in focus, while the prosodic marking is still the same.⁴² For example, in (754) the main stress is always on “apple” (indicated by bold face), while the preceding questions indicate that the focus differs in scope in the three sentences.

- (753) Focus Projection
 a. F-marking of the head of a phrase licenses F-marking of the phrase
 b. F-marking of an internal argument of a head licenses the F-marking of the head
- (754) a. (what kind of juice did Little Tiger drink?)
 He drank [**apple**]_F juice.
- b. (what did Little Tiger drink?)
 He drank [**apple** juice]_F.

⁴² While Selkirk’s focus projection rule only mentions heads and phrases, Büring (2006) shows for English that it is not only the head of a phrase which can project focus, but basically any accented element within the phrase.

- c. (what did Little Tiger do?)
He [drank **apple** juice]_F.

In Makhuwa this could work as well. If one assumes that the element in IAV position is F-marked (it has a focus interpretation), then the next phrase up can also be F-marked. In the case of VP focus: if the object is in focus, the VP can also be in focus. In English, F-marking is realised phonologically as stress, and every F-marked constituent must contain that element in the sentence with the main stress. In Makhuwa, the primary indicator of focus is not stress. Moreover, the audible marking of focus is realised not only on the (lower) F-marked element (as predicative lowering), but on the verb as well (as a CJ or DJ verb form). Nevertheless, if one takes predicative lowering and the CJ form of the verb to be the encoding of F-marking in Makhuwa, the principle of focus projection would explain why the grammar marks different scopes of focus by the same means.

The second part of the focus projection principle (753b) predicts that DP focus and VP focus are expressed the same way, but also that the focus is on a unit *smaller* than the DP can have the same marking on the verb and the following element. In my definition of focus (being interpreted as exclusive), it is still the whole DP which functions as the focus, but a unit smaller than the DP, such as the possessive in (755b) or the adjective in (756b), may be contrasted. The encoding remains the same: the DP is preceded by a CJ verb form. The various scopes of focus and contrast are not distinguished morphologically, but can be inferred from the context.

- (755) a. CJ o-m-phéélá ekaarw' aáká mí
 2SG-PRES.CJ-want 9.car 9.POSS.1SG 1SG.PRO

 o-m-phéélá ekaarw' ááw' óole?
 2SG-PRES.CJ-want 9.car 9.POSS.1 1.DEM.III
 'do you like my car or his car?'
- b. CJ ki-m-phéélá ekaarw' áu
 1SG-PRES.CJ-want 9.car 9.POSS.2SG
 'I like your car'
- (756) a. nthiyána o-nú-mw-áapé-élá nrámá
 1.woman 1-PERF.PERS-1-cook-APPL 3.rice

 mwanámwáne mwánkhaáni
 1.child 1.small
 'the woman cooked rice for the little child'

- b. CJ naáta o-mw-aape-el-alé mwanamwane m-uúlúpale
 no 1-1-cook-APPL-PERF.CJ 1.child 1-big
 ‘no, she cooked (it) for the big child’

Another way of implementing the ambiguity in the expression of focus on the post-CJ element or the VP is suggested by Costa (1998). English and Portuguese only mark the rightward boundary of a focused element by (nuclear) stress, so what has been called “focus projection” is just the effect of ambiguity of these rightward boundaries which fall together, Costa explains. He thus concludes that focus projection “does not need to be postulated. [...] The effects of projection are a consequence of coincidence of rightmost borders of constituents (NP, VP, IP)” (Costa 1998:204). Likewise, focus on the VP and focus on an object DP or an adjunct can be expressed in the same way in Makhuwa, namely, by a CJ verb form and predicative lowering on the following element. This is what creates the ambiguity in the scope of focus in an SVO sentence with a CJ verb form. The Postverbal Term Focus Hypothesis could then hold in a slightly modified version, as in (729’). The grammar marks the set of referents which possibly have the focus function (the focus set), which in Makhuwa always contains the element following the CJ verb form. This element in IAV position can thus be called the nucleus of the focus set. The context decides which referent is the actual focus of the sentence (see also Reinhart 2006).

- (729’) The element following a conjoint form is the nucleus of the focus set, while the element following a disjoint form is not in focus.

In summary, a version of the Postverbal Term Focus Hypothesis which is based on an exclusive interpretation and which allows focus projection in some way, covers the CJ/DJ data found in Makhuwa-Enahara and looks promising. Apart from the Verb Focus Hypothesis and the Postverbal Term Focus Hypothesis discussed so far, there is a third analysis of the CJ/DJ alternation, which was developed by Buell (2006).

5.3.5 Constituency

Buell (2006) proposes an analysis where the CJ/DJ alternation in Zulu is dependent on constituency: the CJ form is used when the verb is not the last element in a constituent, and the DJ form is used when the verb appears constituent-finally. The relevant constituent could be IP or (little) VP. Although an analysis in terms of constituency may work well for Zulu, the arguments in favour of it cannot simply be replicated for Makhuwa. There are syntactic, prosodic and interpretational arguments that do not directly support an analysis in terms of constituency for Makhuwa.

One argument in favour of the constituency analysis is found in Zulu object marking. The object marker in Zulu functions as a pronoun, and hence the object must be dislocated in the presence of an OM. The OM *-yi-* in (757a) indicates that the object has moved outside the relevant constituent, leaving the verb constituent-final.

Consequently, the DJ form must be chosen, and the CJ form is ungrammatical (757b). The ungrammaticality of a CJ verb form with an OM (757c) is explained by reference to principle B of the Binding Theory: as a pronoun, the OM *-si-* cannot be in the same domain with the full object. Since the CJ form indicates that verb and object are in the same domain, the CJ verb form cannot contain an OM.

Zulu (Buell 2006, 2005, adapted)

- (757) a. DJ abafana [ba-ya-yi-cu:la] ingo:ma
 2.boys 2-PRES.DJ-9-sing 9.song
 ‘the boys are singing a song’
- b. DJ * abafana [ba-ya-cu:la] ingo:ma
 2.boys 2-PRES.DJ-sing 9.song
- c. CJ * abafana [ba-si-hlupha isaluka:zi]
 2.boys 2-7-annoy 7.old.woman
 int. ‘the boys are annoying the old woman’

As shown in section 2.4.4 of chapter 2, object marking in Makhuwa-Enahara must be present whenever the object is in class 1 or 2, independent of animacy (758) or definiteness: the object marker must even be present with an indefinite non-specific object (760), which cannot possibly be dislocated. The OM occurs with both CJ and DJ verb forms (759). Since the object after a CJ verb form is always within the same domain as the verb, the object marker cannot be pronominal, but must be a grammatical agreement marker here. Object marking in Makhuwa is thus not always pronominal. As such, it does not indicate dislocation, it has no relation with the CJ/DJ alternation, and does not tell us anything about constituency.

Makhuwa

- (758) CJ ki-ni-m-wéha Hamísi / namarokoló / nancoólo
 1SG-PRES.CJ-1-look 1.Hamisi / 1.hare / 1.fish.hook
 ‘I see Hamisi / the hare / the fish hook’
- (759) DJ ki-ná-m-wéha Hamísi / namarokólo / nańcóólo
 1SG-PRES.DJ-1-look 1.Hamisi / 1.hare / 1.fish.hook
 ‘I see Hamisi / the hare / the fish hook’
- (760) nki-m-wéh-áleńtthu
 NEG.1SG-1-look-PERF.DJ 1.person
 ‘I didn’t see anyone’

Constituency in Zulu is also indicated phonologically, by automatic lengthening of the penultimate syllable of a phonological phrase (penultimate lengthening, Van der Spuy 1993). This lengthening, signalled by [:], indicates the right boundary of a phonological phrase. It does occur on a DJ verb form, but is impossible on a CJ form. In (761a) both the DJ verb form and the object have penultimate lengthening, whereas in (761b) the penultimate lengthening is only present on the object. This implies that the verb and object are in two separate phonological phrases when a DJ form is used, but in one and the same phrase when the CJ form is chosen. Assuming that there is a mapping of the right boundaries of phonological and syntactic phrasing, this phonological evidence also shows that the DJ verb form is VP-final and the CJ verb form is not. The indication of phonological phrases by penultimate lengthening is also known for other Bantu languages and is well described for Makwe (Devos 2004), but it is not present in Makhuwa.

Zulu (Buell 2005:64,66)

- (761) a. DJ abafana [ba-ya-si-hlu:pha] isaluka:zi.
 2.boys 2-PRES.DJ-7-annoy 7.old.woman
- b. CJ abafana [ba-hlupha isaluka:zi]
 2.boys 2-annoy 7.old.woman
 'the boys are annoying the old woman'

Makhuwa-Enahara does often mark the relation between the CJ verb and the following element by predicative lowering. This could be an indication of the non-dislocated position of the object after a CJ form, but it cannot be used as evidence that the object after a DJ form is dislocated. After all, the object of an infinitive does not have predicative lowering either, but does not necessarily mean that the object is dislocated. Other prosodic markers of constituency in Makhuwa could be pauses and changes in the tone pattern. If pauses indicate a constituent boundary, and if constituency is the determining factor in the alternation between CJ and DJ verb forms, one might expect to find a pause between a DJ verb form and the following element, but not after a CJ verb form. This prediction is not borne out in Makhuwa-Enahara: a pause is not necessary after a DJ verb form, and a DJ verb form and following object are easily pronounced without. Although the tone patterns at the edges of prosodic phrases have not been examined in detail, there does not seem to be any consistent difference between the CJ and DJ verb form in terms of tone or intonation.

To continue the comparison of the CJ/DJ alternation in Makhuwa and Zulu, the interpretation of the elements following a CJ verb form seems to differ in the two languages, as well. Buell (2006) states that "elements remaining within the relevant constituent [i.e., following a CJ verb form *JW*] are non-topical, and focus is one of a range of interpretations they can receive". In Makhuwa, however, any element immediately following a CJ verb form gets the focused, exclusive reading illustrated in

the previous section. Even adverbs, which in the majority of the occurrences appear after a DJ verb form, have this interpretation when used with a CJ verb form. In (762), for example, the sentence with the DJ verb form is used as a greeting in the morning, while the question with the CJ form implies that you didn't sleep well before, with all the noise and mosquitos, and the one asking wants to know whether you actually slept *well* this night. The focal interpretation of a post-CJ adverb is also illustrated in (763), where *ntsáná* 'yesterday' and *elélo* 'today' are contrasted.

Makhuwa

- (762) a. DJ moo-rúpá saláama?
2PL.PERF.DJ-sleep peaceful
'did you sleep well?'
- b. CJ mu-rup-alé saláám' elélo?
2PL-sleep-PERF.CJ peaceful today
'did you sleep *well* today?'
- (763) nki-low-álé ntsáná ki-low-alé elélo⁴³
NEG.1SG-fish-PERF.DJ yesterday 1SG-fish-PERF.CJ today
'I didn't fish yesterday, I fished today'

Normally, yes/no questions take a DJ form (764a), but there are examples where the CJ form is grammatical. The interpretation and context are different, though. The example in (764b) can in fact be grammatical in the context of a room which has an electrical lamp, but instead someone lit the small oil lamp. Then another person comes in, is very surprised and says the sentence in (765). The CJ form is used, and the element immediately following it gets a exclusive reading.

- (764) a. DJ woo-várhélá ekanttíyéro?
2SG.PERF.DJ-light 9.oil.lamp
'did you light the oil lamp?'
- b. CJ # o-vari-hel-alé ekanttiyeró?
2SG-light-PERF.CJ 9.oil.lamp

⁴³ One might have expected the negative verb form to be CJ as well in this example. I do not know why the DJ form is used here and I can only speculate that the negative CJ form is not used much anyway, as also mentioned in section 5.2.1. The same remark can be made with respect to example (747).

- (765) o-varihel-alé ekanttiyeró?
 2SG-light-PERF.CJ 9.oil.lamp
- o-ttip-ih-é o-m-párihel-é lámát' ooyó!
 2SG-put.out-CAUS-OPT 2SG-1-light-OPT 1.lamp 1.DEM.II
 'Did you light the *oil lamp*? Put it out, switch on that (electrical) light!'

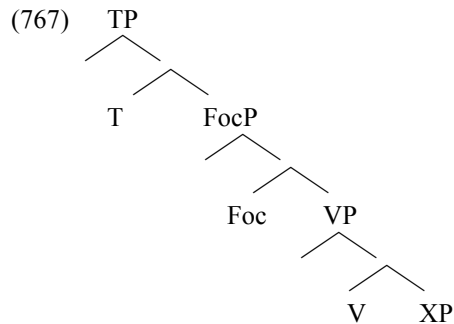
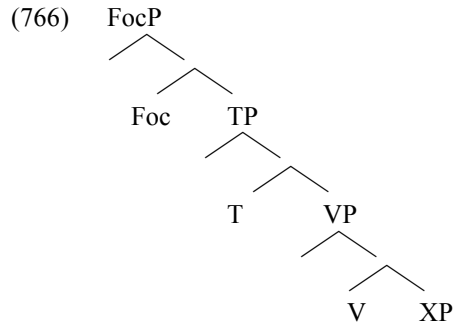
Summing up, the syntactic, prosodic and interpretative evidence found in Zulu for a strong connection between the constituency and the distribution of the CJ or DJ verb form is not as obvious in Makhuwa. There might still be a connection with constituency, but it will be difficult to prove it directly. The connection between the CJ form and an exclusive interpretation of the elements in the IAV position is a strong one, although there is ambiguity in the marking of DP and VP focus. The interpretational effects and syntactic requirements of the CJ and DJ verb forms are modeled in the next section.

5.4 A model for the conjoint/disjoint alternation

In chapter 3 two models were presented which both combined IS and syntax. The first, the cartographic model, uses a Focus Projection (FocP) and corresponding features. It was shown that the model faces problems with respect to the origin of the syntactic IS features and the encoding of relational notions. Nevertheless, a possible cartographic account for the CJ/DJ alternation is discussed in this section. The arguments against a low FocP put forward in recent literature are shown to be inapplicable in Makhuwa, which implies that such an analysis may still be possible for Makhuwa. However, considering the general objections against the cartographic model, and the fact that the cartographic analysis does not account for the CJ/DJ data in Zulu, the configurational interface model as presented in chapter 3 is also discussed. This model, and specifically the interface rule on the CJ verb form, is shown to account for the CJ/DJ data, as well.

5.4.1 Cartographic model

As explained in chapter 3, cartographic accounts assume that a focused element is marked with a focus feature F. All uninterpretable syntactic features must be checked or valued in an appropriate projection, and so must the focus feature. Therefore, the F-marked element must move to the specifier of a focus projection (FocP) in order to check its feature and get a focused interpretation. Such a FocP could be in various positions. Rizzi (1997) proposes a unique FocP in the extended CP domain (766). Positioning FocP in this domain corresponds to the high position in which a focused element is interpreted in the semantic component, and also matches the high preverbal position where focus appears in Italian. For languages where focus is realised postverbally or "in situ", a similar FocP has been proposed in a *low* position in the syntactic tree, i.e., just above the verb phrase ((767), Ndayiragije 1999, Belletti 2004, Aboh 2007b, Sabel and Zeller 2006, Van der Wal 2006a).



The IAV effect can be explained if the FocP is positioned directly under the projection in which the verb stem ends up. A focused element can only be interpreted as focused if it moves to the specifier of the FocP, which immediately follows the verb. Hyman and Polinsky (to appear) argue that such a low focus projection does not work for Aghem, and Cheng and Downing (2006) and Buell (2007a) replicate and extend the arguments to Zulu. The various arguments against a low FocP are discussed below, in order to see whether they can also be applied to Makhuwa, and if so, whether they still hold for this language.

A first possible argument against a low FocP analysis is the structural and linear position of the verb. Since the focused element appears immediately after the verb the FocP should follow the verb in a syntactic tree. If one assumes no V-to-T movement, and if the FocP is positioned right above vP, the verb would not precede a low FocP. However, the fact that there is no evidence for movement of the verb to T does not mean that the verb remains in-situ. It could very well be moved to a projection slightly higher than vP. Buell (2005), Aboh (2007b) and Hyman and Polinsky (2006) propose a structure where the verb stem ends up under TP, but above vP (and FocP), which could be an aspect projection (AspP). (See also chapter 3, section 3.4.2.) Independent of the focus interpretation of the postverbal element, Julien (2002) comes to the same conclusion on the position of the verb stem in Bantu languages.

Second, an element in IAV position should always have a focused interpretation, if it is in a FocP. Hyman and Polinsky (to appear) and Buell (2007a) claim that in Aghem and Zulu this is not always the case, since a sentence with a CJ verb form can be ambiguous between narrow focus on the element in IAV position and broad focus on the VP or sentence. Another way of looking at this prediction is described in section 5.3.4: the element following the CJ verb form does in fact always have a focus interpretation, at least in Makhuwa. The broader focus can be accounted for by assuming the projection of focus from the head to the phrase and to a next higher phrase, or by accepting the ambiguity of focus marking for different scopes of focus.

Third, Buell (2007a) shows that the focus interpretation can depend on the category of the element in IAV position. In Zulu, the adverb *kahle* ‘well’ must occur in IAV position, but does not necessarily get a focus interpretation. In (768) the adverb is in IAV position and is expected to be focused, but it is clear from the contrast between the two phrases that it is the verb which is focused here. The non-focal interpretation of the element in IAV can be seen as an argument against a FocP analysis but can also be seen as an idiosyncratic requirement of the adverb *kahle*, which prohibits the occurrence of the adverb after a DJ verb form. Although the projection requires a focal interpretation, in this particular case the syntactic requirements win out, and the adverb can never occur after a DJ form. There is no alternation, and both interpretations (focal and non-focal) are expressed in the same way. In Makhuwa the adverb *saána* ‘well’ has the opposite requirement: it is prohibited after a CJ verb form, independent of its interpretation (769, repeated from section 5.2.2). Other adverbs are allowed after a CJ form. Further research may find a relation between the meaning of the words and their behaviour in these languages. For now I take them to be exceptions with very specific syntactic requirements, which are independent of the generalisations on the use and interpretations of the CJ verb form and the element in IAV position.

Zulu (Buell 2007a)

- (768) a-ngi-dansi kahle kodwa ngi-cula kahle
 NEG-1SG-dance well but 1SG-sing well
 ‘I don’t dance well, but I sing well’

Makhuwa

- (769) a. CJ o-n-tthává tsayi?
 1-PRES.CJ-plait how
 ‘how does she plait?’
- b. CJ * o-n-tthává saána
 1-PRES.CJ-plait well
- c. DJ o-náá-tthává saána
 1-PRES.DJ-plait well

Fourth, if there is a unique IAV position for focus in the form of a low FocP, and if a focused DP must be in the specifier of that FocP one would not expect the possibility of two focused phrases. Any focused element must occur in the specifier of a FocP, and the only FocP is postulated to explain the IAV position. Two focused phrases do occur in multiple *wh*-questions, which are grammatical in Zulu and Aghem, as shown in (770) and (771). These data argue against a unique low FocP in these languages.

Zulu (Buell 2007a)

- (770) u-zo-nika bani ini?
 2SG-FUT-give 1.who 9.what
 ‘who will you give what?’

Aghem (Hyman and Polinsky 2007:22)

- (771) à mɔ zì ndúghɔ kwɔ̀-kɔ̀ zìn?
 ES P1 eat who what when
 ‘who ate what when?’
 ‘when did who eat and what?’

However, in Makhuwa the prediction is borne out: multiple *wh*-questions are ungrammatical, as shown in chapter 2, section 2.3.9. This is also illustrated in (772): the only possibility for inquiring after both the direct and the indirect object is to pose two separate questions. The separation of the questions is indicated by the pause (|), and special falling intonation on *pánî* ‘who’. Sentences with more than one element modified by the focus particle “only” are also ungrammatical (773). This suggests that in Makhuwa there is indeed only one position for focus, which is compatible with a low FocP analysis.

Makhuwa

- (772) CJ o-m-vah-alé pánî | eshééni?
 2SG-1-give-perf.CJ 1.who 9.what
 ‘to whom did you give it? what?’
- (773) CJ * Maria o-m-vah-ale ekamitsa paahi Aputaala paahi
 1.Maria 1-1-give-PERF.CJ 9.shirt only 1.Abdallha only
 int. ‘Maria gave only Abdallah only a shirt’

Fifth, if there is a dedicated focus position, any focused element should be able to move there, independent of the function or position of other elements which do not have a focus feature. Buell (2007a) shows that there is a “no-crossing” constraint in Zulu: a focused element cannot move across an overt non-focal element to reach the IAV position. Instead, the non-focal element must be dislocated. In Zulu, an object can only be dislocated if it is object-marked on the verb, which is the case in (774b). In addition

to moving the focal object *kudla kuni* to the FocP, as is expected to be possible in a cartographic analysis, the non-focal object *ubaba* is moved out of the IAV position.

Zulu (Buell 2007a)

- (774) a. * u-phek-el [kudla kuni]_i ubaba t_i?
 2SG-cook-APPL 15.food 15.what.kind 1.father
 int. 'what kind of food are you cooking for father?'
- b. u-m-phek-ela t_i kudla kuni ubaba_i?
 2SG-1-cook-APPL 15.food 15.what.kind 1.father
 'what kind of food are you cooking for father?'

Since in Makhuwa neither object marking nor penultimate lengthening is used to indicate the position of the object, one cannot tell whether a post-focal object is dislocated or not. Postverbal elements can be arranged in different orders in Makhuwa, without a pause between them (775).⁴⁴ It could still be the case that the second postverbal element is dislocated in some way, but, as mentioned in section 5.3.5, there is no direct evidence for such a dislocation. The no-crossing constraint does not seem to hold in Makhuwa, and hence this argument cannot be made for Makhuwa.

Makhuwa

- (775) a. nlópwáná o-ni-m-váha niphaawá nthiyána
 1.man 1-pres.CJ-1-give 5.spoon 1.woman
 'the man gives the/a woman the/a spoon'
- b. nlópwáná o-m-vah-alé nthiyána nipháawa
 1.man 1-1-give-perf.CJ 1.woman 5.spoon
 'the man gave the/a woman the/a spoon'

In summary, the objections against a FocP analysis of the IAV position and the CJ/DJ alternation raised by Hyman and Polinsky (2007) and Buell (2007) are valid for Aghem and Zulu, but for Makhuwa-Enahara they are either not true or inapplicable. Nevertheless, an interface model can also account for these facts. A possible analysis in such a model is presented next.

5.4.2 Interface model

In an interface analysis, focus is not a part of the narrow syntax, but it is a relation defined in the interface between syntax and pragmatics. In the configurational model proposed by Slioussar (2007) and explained in chapter 3, elements are not marked for topic or focus, but only the *relative* accessibility and salience of the elements with

⁴⁴ The information structure is presumably not the same in the different orders.

respect to each other are encoded. In chapter 3 Slioussar's interpretation rule for Russian was presented. This rule was modified in chapter 4, as in (666), and applied to Makhuwa to account for the distribution of pre- and postverbal elements.

(776) *Accessibility rule*

Only the referents corresponding to the elements merged higher than the verb are interpreted as more accessible and less salient than the verb (and the referents corresponding to the elements lower than the verb).

In order to account for the interpretations of CJ and DJ verb forms, which fit under the Postverbal Term Focus Hypothesis, a second rule is needed. However, an interface rule making use of only accessibility and/or salience would not work. As can be seen in earlier examples, different elements with various values of accessibility can occur after a CJ verb form. Elements corresponding to referents with a very low accessibility, such as *wh*-words, are found in IAV position, as are highly accessible referents, like a proper name which has been activated in the previous question, as in (777b). Apparently, accessibility is not the most important notion in the CJ/DJ alternation.

- (777) a. o-m-man-alé Coaó o-m-man-alé Peeturú?
 2SG-1-hit-PERF.CJ 1.João 2SG-1-hit-PERF.CJ 1.Pedro
 'did you hit João or Pedro?'
 b. ki-m-man-alé Péeturú
 1SG-1-hit-PERF.CJ 1.Pedro
 'I hit Pedro'

An interface rule making use of the notion of salience could be posed as in (778). Yet, there are also problems when referring to salience. For example, in case the verb is just as salient and accessible as the object, there is no "most salient referent".

- (778) The referent corresponding to the element immediately following a CJ verb form is interpreted as the most salient referent.

Apart from that, as demonstrated in the sections above, the interpretation of the element in IAV position is not just that it is the most salient but that it is exclusive. Otherwise, a focus particle like "even" should be allowed in IAV position, since it is very salient. The fact that it is ungrammatical after a CJ verb form, points to the relevance of exclusivity in the determination of the form of the verb. Since it is a matter of interpretation, which happens at the interface, it should be encoded as such in the interface rules. The interface rule which ensures the right interpretation and the right verb form is given in (779).

(779) *Exclusivity rule*

Only the referent corresponding to the highest element c-commanded by a conjoint verb form, or a constituent which contains that element, is interpreted as exclusive.

This second rule accounts for the exclusive interpretation of the referent corresponding to the element in the position immediately following the CJ verb form, the IAV position. The rule checks the compatibility of the configuration with the interpretation as given in the exclusivity rule. The highest overt element in the domain c-commanded by the verb is the element which occurs directly after the verb, in terms of linearisation. Yet, it is necessary to define this position hierarchically in order to make the right predictions with respect to subject focus, for example. In languages like Sotho a focused logical subject can appear after a CJ verb form. There is evidence that this subject is in-situ in the verb phrase, c-commanded by the (moved) verb. In Makhuwa the subject can linearly occur after the verb in a VS construction, but hierarchically it is probably in a higher position, where it is not c-commanded by the verb. Hence, in Makhuwa the verb cannot be in a CJ conjugation in VS order (and the subject cannot be exclusive), as is also shown in chapter 4. The rule must also refer to a hierarchical position in order to capture the ambiguity between focus on the element in IAV position and focus on the VP, which cannot be stated in linear terms.

The reason to refer to the element in IAV position as the “highest element c-commanded” is that this refers to any element in any position lower than the verb. That is, it may be an indirect object in the specifier of vP, a left-adjoined adverb, or an object in the complement position. These diverse structural positions would not be captured in a definition in terms of government or asymmetric c-command, for example. In the rule as it is posed here, no matter how low an element is in the structure, it can still be interpreted as exclusive, as long as it is the highest lower than the verb.

By the “element” referred to in the rule I mean DPs, PPs and adverbials. It is difficult to capture these under one term, while at the same time excluding the VP node, which is also c-commanded by the moved verb. This VP may be focused by projection, but it is not the nucleus of the focus set, which is the DP or adverb a level lower. Note, however, that DPs, PPs and adverbs are also the only categories that can be clefted.

The rule thus singles out one element under the CJ verb form which is the core of the focus. What precedes the verb, what follows a DJ verb form, and what does not *immediately* follow the CJ verb form cannot be interpreted as exclusive. Still, exclusivity is not a relative notion, but a binary notion. Either an element is exclusive or it is not; X cannot be “more exclusive” than Y, unless maybe when talking about *haute couture*. The checking of the exclusive interpretation in this way is reminiscent of a focus feature. However, the difference is that exclusivity in the interface model only concerns a semantic/pragmatic interpretation: it is only relevant after narrow syntax, at the interface, and is not used as a syntactic feature (and thus does not violate Inclusiveness). One could thus also implement the notion of exclusivity by a semantic feature, in this model.

In principle, the exclusivity rule functions independently of the accessibility rule. Nevertheless, an element that is both more accessible than the verb and interpreted as exclusive must occur in the IAV position (and not preverbally, as predicted by the accessibility rule). There are two ways to view the interaction between the two rules. One is to assume that the exclusivity rule is ranked higher than the accessibility rule (in an OT implementation) or to have the accessibility rule apply before the exclusivity rule (more derivationally), so that the exclusivity is always encoded and not altered by the accessibility rule. The other way is to assume that the element interpreted as exclusive is always highly salient or even the most salient element. This has implicitly been assumed in many theories about focus and exhaustivity, and the data tell us that there is indeed such a link. The fundamental question remains why focus and salience should be linked to an exhaustive or exclusive interpretation, or the other way around. I do not have an answer to this general question, but observe that the element in IAV position is interpreted as exclusive, independent of its accessibility status, and maybe independent of its salience.

The exclusivity rule explains the use of the CJ or DJ verb form in a number of word orders and constructions and accounts for their interpretations. First, in the canonical word order $SV_{C/O}$ the object is indeed interpreted as exclusive (and in $V_{D/O}$ it is not). According to the rule, even when the object is more accessible (but not less salient) than the verb, it can still be interpreted as exclusive, as illustrated in (780). In this example the protagonist has set out to find a specific woman, and when he finally finds her and hears more about her, he decides this is the woman he wants to marry. The girl has been under discussion in the sentences before this one, and is highly active, which is also visible in the demonstrative form used to refer to her, *yóoyo*. Since she is the only one chosen for marriage, she should be interpreted as exclusive, hence the CJ verb form.

- (780) CJ hwiira paáhi ki-ni-ń-théla yó-oyo (H3.34)
 NARR-do enough 1SG-PRES.CJ-1-marry 1.E-1.DEM.II
 ‘and he said: “okay, I’ll marry this one.”’

The exclusivity rule also accounts for the focal reading of adverbs in IAV position, which was illustrated in (762). The question-answer pair in (781) also shows that an adverb in IAV position is interpreted as the focus, and the CJ form is used.

- (781) a. anámwáne a-n-cá vákhaani vákháani
 2.children 2-PRES.CJ-eat 16.slow RED
 a-n-cá y-aakúv-íh-ats-aka?
 2-PRES.CJ-eat 2-do.quickly-CAUS-PLUR-DUR
 ‘do the children eat slowly or quickly?’

- b. a-n-cá vákhaani vákháani
 2-PRES.CJ-eat 16.slow RED
 ‘the children eat slowly’

As the exclusivity rule checks the compatibility of the element in IAV position with an exclusive reading, the data with the focus particles “even” and “only” are also explained. An element modified by “even” cannot be interpreted as exclusive, and hence is filtered out as ungrammatical after a CJ form (782), whereas an element modified by “only” must follow the CJ form (783). With the DJ verb form the opposite judgements hold.

- (782) a. CJ * áshííná a-ni-ń-khúúrá hatá mwálápwa
 2.Chinese 2-PRES.CJ-1-eat even 1.dog
 int. ‘the Chinese eat even dogs’
- b. DJ áshííná a-ná-ń-khúúrá hatá mwálápwa
 2.Chinese 2-PRES.DJ-1-eateven 1.dog
- (783) a. CJ ki-n-thúm’ étomati paáhi
 1SG-PRES.CJ-buy 10.tomatoes only
 ‘I only buy tomatoes’
- b. DJ * ki-náá-thúma etomátí paáhi
 1SG-PRES.DJ-buy 10.tomatoes only

The exclusivity rule also ensures that the focus does not occur in a preverbal position, although the accessibility rule (666) already prohibits the occurrence of less accessible and more salient elements before the verb. Furthermore, the exclusivity rule filters out all sentences where an exclusive element occurs in any position other than immediately following a CJ verb form. The rule states that *only* the element after a CJ verb form is interpreted as exclusive, so after a DJ form it may not get that interpretation. Sentences containing an exclusive element following a DJ verb form are thus infelicitous (784).⁴⁵ The rule also filters out sentences where another element intervenes between the CJ verb form and the exclusive constituent, since it is only the element immediately following the CJ form which gets the interpretation (“highest element c-commanded by the verb”). In (785) the adverb *ohíyu* ‘evening’ is not allowed to come between the verb and the *wh*-word *eshéeni* ‘what’.

⁴⁵ This implies that the DJ verb form is used when there is no exclusive focus (“elsewhere”), which is indeed the case.

- (784) a. CJ o-lomw-é ehopa paáhi
 1-fish-PERF.CJ 9.fish only
 ‘he caught only fish’
- b. DJ # oo-lówá ehópá paáhi
 1.PERF.DJ-fish 9.fish only
 int. ‘he caught only fish’
- (785) a. CJ o-loh-al’ éshéeni ohíyu?
 2SG-dream-PERF.CJ 9.what 17.evening
 ‘what did you dream at night?’
- b. CJ * o-loh-alé ohíyú eshéeni?
 2SG-dream-PERF.CJ 17.night 9.what

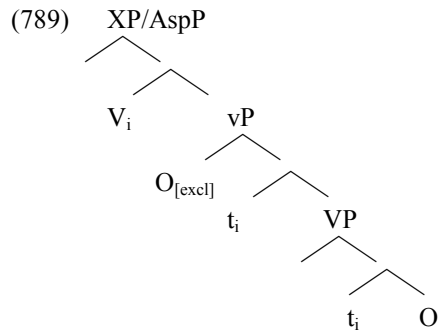
By allowing ambiguity of focus marking on the DP or VP in the exclusivity rule (“or a constituent which contains that element”), the element in IAV position is identified as the nucleus of the focus set: the referent of that element is always interpreted as exclusive, but depending on the context the higher nodes may also be interpreted as exclusive (“focus projection”). Hence, in the answer in (786b), repeated from (737), the verb has a CJ form and the object is the nucleus of the focus, but the whole VP has a focus function: the encoding of focus on the object DP or on the VP is identical.

- (786) a. CJ o-n-iír’ ésheeni?
 1-PRES.CJ-do 9.what
 ‘what does he do?’
- b. CJ o-n-túmih’ epolashá
 1-PRES.CJ-sell 10.cookies
 ‘he sells cookies’

In a double object construction, either the first object or the whole VP (meaning the verb plus both objects) can receive an exclusive interpretation. The first is illustrated in (787a), where the focus is on the shima, as indicated in the translation. The exclusivity rule correctly predicts the reading in which the first object is interpreted as exclusive. The more neutral way to ask this yes/no question is given in (787b), where the verb has a DJ form. The reading with VP focus is visible in the answer in (788b). This reading is also predicted: the whole phrase [VOO] can be in focus, since the constituent which contains the verb necessarily contains the first object, which is the nucleus of the focus set, as well as the second object.

- (787) a. CJ Atíica aa-vanh-e [eshima]anámwáne?
 1.Hadija 1.PAST-give-PERF.CJ 9.shima 2.children
 ‘did Hadija give *shima* to the children?’
- b. DJ Atíica o-h-aá-váha eshímá anámwáne?
 1.Hadija 1-PERF.DJ-2-give 9.shima 2.children?
 ‘did Hadija give shima to the children?’
- (788) a. CJ Zainálé o-n-iírá-ni?
 1.Zainal 1-PRES.CJ-do-what
 ‘what is Zainal doing?’
- b. CJ Zainálé [o-n-áá-tóónyihér’ énopá anámáthúma]
 1.Zainal 1-PRES.CJ-2-show 9.house 2.buyers
 ‘Zainal shows the house to the buyers’

However, the exclusivity rule also predicts that an intermediate constituent can be in focus, containing both of the objects, but not the verb. According to the rule, any constituent containing the first (exclusive) object can be interpreted as exclusive. By moving the verb out of the verb phrase, a maximal projection is left which contains only the first and second object. This constituent, vP in the structure in (789), should also have the possibility to be interpreted as exclusive, but such a reading is unavailable.



It is hard to establish what exactly the interpretation of such a scope would be. Would focus on the constituent containing both objects have the same interpretation as focus on the two objects, i.e., multiple focus? Multiple focus is ungrammatical in Makhuwa, as shown earlier in (772) and (773). Multiple *wh*-questions are not allowed and as a consequence there is no easily construable pragmatic context which would facilitate a focus reading of the two objects, or of the constituent which contains them. For instance, the sentence “he gave Irene a shirt”, with focus on both objects but not the verb, could

be felicitous in the context “what did he give to whom?”. Neither the question nor the answer can be formulated in a single sentence in Makhuwa.

In fact, it seems that this higher constituent containing only the objects can not be focused at all. When trying to modify it with “only”, it is just the first object which is interpreted as exclusive, not the constituent with both objects. This is also true in English. In (790a) the interpretation is that “only” modifies “Irene”, and not “Irene a shirt”. The constituent with two objects cannot be preposed (790b), neither can it constituent be clefted (790c).⁴⁶ Modifying the first object in Makhuwa also entails an exclusive reading of that object, not of both objects. The informant’s explanation of the situation with example (791) is that everybody received several things, say, two pairs of trousers, two hats, and only Abdallah also got a shirt. Putting the modifier to the right of the whole constituent, as in (791b), is simply ungrammatical. I conclude that there is a more general syntactic condition which makes it impossible to focus the constituent containing only the two objects of a double object construction.

(Leston Buell, p.c.)

- (790) a. he gave only Irene a shirt
 b. * [only Irene a shirt] did he give
 c. * it is [only Irene a shirt] that he gave
- (791) a. CJ Maríyá o-m-vanh-é [Apútáálá paáhi] ekamitsa
 1.Maria 1-1-give-PERF.CJ 1.Abdallah only 9.shirt
 ‘Maria gave only Abdallah a shirt’
- b. CJ * Maríyá o-m-vanh-é [ekamitsá Apútáálá paáhi]
 1.Maria 1-1-give-PERF.CJ 9.shirt 1.Abdallah only
 int. ‘Maria gave only Abdallah a shirt’

Another case of ambiguity in focus marking is mentioned in section 5.3.4. When only part of a DP is contrasted, for example a possessive or adjectival modifier, this DP is still the element which immediately follows the CJ verb form. The rule predicts that the (whole) DP is interpreted as exclusive, not just the contrasted modifier. In fact, this is true: only a referent or event can be interpreted as exclusive, and in this case it is indeed the referent of the DP which gets that exclusive interpretation. The fact that the modifier has a contrastive reading is fully dependent on the context. In (792b) the speaker wants black clothes, but it is the clothes that she (exclusively) wants, not the colour. The highest element c-commanded by the CJ verb is the object DP “black clothes”, which is interpreted as exclusive, as predicted by the interface rule, and the contrast on the adjectival modifier is induced by the context of the question in (792a).

⁴⁶ Thanks to Leston Buell for this idea and these examples.

- (792) a. CJ o-m-phéélá ekuwo ts-oórípá ts-oóttéela?
 2SG-PRES.CJ-want 10.clothes 10-dark 10-light
 ‘do you want black or white clothes?’
- b. CJ ki-m-phéélá ekuwo ts-oórípá
 1SG-PRES.CJ-want 10.clothes 10-dark
 ‘I want black clothes’

The exclusivity rule thus accounts for the occurrences of post-CJ adverbs and objects, their interpretations, and the ambiguity in the marking of DP and VP focus. However, the subject may not occur in a position lower than the CJ verb form in a mono-clausal sentence. The subject marker on the verb always agrees with the subject in Makhuwa, and hence the subject always moves to a position higher than the verb: out of the domain c-commanded by the (CJ) verb. Yet the exclusivity rule requires the subject to occur lower than the verb if the subject is to be interpreted as exclusive. The only possible way to have the subject directly follow a CJ form and not get into trouble for subject agreement is to use a cleft or copular construction. The exclusive subject then follows a copula (793b) or is made predicative by predicative lowering (PL, (794)) and is in the predicate of the first clause. The verb is now in a relative clause which follows the predicative clause. In a cleft the subject can thus be interpreted as exclusive at the interface.

- (793) a. * aahi-phiya pani?
 1.PAST.PERF.DJ-arrive 1.who
 int. ‘who arrived?’
- b. ti pani aa-phiy-ale?
 COP who 1.PAST-arrive-PERF.REL
 ‘who is the one that arrived?’
- (794) nlopwáná o-ni-ń-kákhá nthíyána
 1.man.PL 1-PRES-1-push.REL 1.woman
 ‘it is the man who pushes the woman’

For exclusive objects the (easier and more economical) possibility already exists to remain in the VP and follow a CJ verb form, but objects can occur in a cleft construction as well. I suggest that this is because the function of a cleft is twofold: it not only singles out one argument or adjunct, but also backgrounds the rest of the proposition. The order V_{CJ} O is still ambiguous between an interpretation of the object as the element with the most salient and exclusive referent, and an interpretation in which the verb and the object are equally salient and there is VP-focus. In order to disambiguate (if the context is not clear enough), a cleft can be used. In an object cleft

the object is the only element interpreted as exclusive and it is much more salient than the verb, which is backgrounded in a relative clause. In (795), for example, Hare has just explained why he is calling the other people names, after which they indignantly ask whether this is the reason for insulting them. The insulting is given and backgrounded, but the reason (*iitthu*) is the focus of the attention.

- (795) p' iitthu e-n-ní-rúwan-el-áu? (H5.34)
 COP 9.thing 9-PRES-1PL-insult-APPL.REL-POSS.2SG
 'is this why you are insulting us?'

Exclusive elements can also occur in a copular construction. There are two copular constructions, both linking a referential DP to a predicative DP. In a specificational copular construction the predicative DP precedes the copula and the referential DP follows it, as in (796). This type of copular clause has a "fixed topic-focus structure" (Mikkelsen 2005:162): the first DP always has a topic function and the second DP functions as the focus. If the copula in nominal predication acts as the verb in verbal predication, this specificational structure obeys the exclusivity rule by ensuring that the exclusive (focus) element follows the copula. The exclusive interpretation of the post-copular referential DP is visible in (797a), where the focus particle "only" is used.

- (796) o-n-ca-alé ti Selemáni
 1-PRES-eat-PERF.REL COP 1.Suleiman
 lit. 'the one who ate (it) was Suleiman'
- (797) a. o-wa-alé Maninya paáhi
 1-come-PERF.REL 1.Maninha.PL only
 'only Maninha came' / 'the only one who came was Maninha'
 lit. 'who came was only Maninha'

In a predication copular clause (reverse pseudocleft) the referential DP and the predicative DP are inverted and the IS is more flexible: the DP before the copula can have a topic function, but also a focus function. The element with exclusive interpretation can hence also appear in a pre-copular position, as in (797b). This is unaccounted for by the exclusivity rule.

- (797) b. Manínyá paáhi t' á-wá-alé
 1.Maninha only COP 1-come-PERF.REL
 'only Maninha came' / 'Maninha was the only one who came'
 lit. 'only Maninha was (the one) who came'

The focus function of the referential part is also illustrated in (798). The context indicates that "Joana" is in focus and both constructions are felicitous as an answer.

(798) X: “Who is sleeping inside? Abdul?”

Y: “No, it’s not Abdul, ...

- a. o-n-rúpá ti Coána
 1-PRES-sleep.REL COP 1.Joana
 lit. ‘... the one who sleeps is Joana’
- b. Coána t’ í-ń-rupa
 1.Joana COP 1-PRES-sleep.REL
 lit. ‘... Joana is the one who sleeps’

Mikkelsen’s (2005) reasoning is that there are two preferences which may be competing. The first is that the most referential DP should occur in the pre-copular position (as in the predicative copular clause) and the second is that the topic should be in the pre-copular position (as in the specificational copular clause). Only when the predicative part has a clear topic function can it precede the copula and hence this type of copular clause has a fixed IS. Since IS has great influence on word order in sentences with verbal predication in Makhuwa, it could be expected that the same applies to nominal predication. However, in sentences like (797b) and (798b) this is not the case. The copular clauses and their IS are discussed as an issue for further research in the conclusion.

In summary, although non-verbal predication deserves more detailed study, the interface rule in (779) about exclusivity accounts for the CJ/DJ alternation and the corresponding interpretation in most word orders and constructions in Makhuwa-Enahara.

5.5 Conclusion

In this chapter the formal and interpretational properties of the CJ/DJ alternation were discussed for Makhuwa-Enahara. The alternation is visible in the sentence-final distribution, the form of the inflectional markers, and the tone pattern on the element directly following the verb. The difference in interpretation between the two forms is not in the TAM semantics and not in the focus on the verb either. The CJ form was shown to be closely connected with the element in the position directly following the verb, which is known as the Immediate After Verb position. While the CJ/DJ alternation and/or the IAV position is associated with constituency or a general focus reading in other Bantu languages, an exclusive reading of the element in IAV turns out to be the relevant property for Makhuwa. The cartographic model can account for the IAV position and the exclusive reading after the CJ form in Makhuwa, but it is inapplicable for Aghem and Zulu and also faces general problems. Therefore, the configurational interface model proposed in chapter 3 is applied and an interface rule making reference to the IAV (c-

commanded by the verb) and the exclusive reading was shown to correctly predict the interpretations of various word orders and the use of the CJ and DJ verb forms.