

STRUCTURING INFORMATION IN BLACKFOOT: AGAINST THE A'-AGREEMENT ANALYSIS OF CROSS-CLAUSAL AGREEMENT*

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1. Introduction

In Blackfoot, as in other Algonquian languages, a matrix verb may optionally agree with either the subject or the object of a complement clause. This phenomenon, known as CROSS-CLAUSAL AGREEMENT (or CCA) is illustrated in (1) and (2) below.

No CCA¹:

- (1) *Nitsíkssta ana Leo ninááhksspomowahsi*
nit-ikssta an-wa Leo nin-aahk-sspommo-a-hsi
1-want.AI DEM-PROX Leo 1-MOD-help.TA-1:3-CONJ
'I want to help Leo'

CCA:

- (2) *Nitsíksstaata ana Leo ninááhksspommowahsi*
nit-iksstaata an-wa Leo nin-aahk-sspommo-a-hsi
1-want.TA-1:3 DEM-PROX Leo 1-MOD-help.TA-1:3-CONJ
'I want to help Leo'

In (1), there is no cross-clausal agreement. The matrix verb is intransitive (i.e. AI, or Animate Intransitive) and shows no agreement with a subordinate DP. In (2), on the other hand, there is cross-clausal agreement. The matrix verb is transitive (i.e. TA, or Transitive Animate), and the direct theme suffix *-a* indicates that a first person object is acting on a third person object. In this example, the third person controlling matrix object agreement is the subordinate object *ana Leo*.

*. Many thanks to Beatrice Bullshields and Rachel Ermineskin for sharing their language with me. *Nitsikohtahsi'taki*. I also wish to express my gratitude towards Martina Wiltschko, Michael Barrie, members of the Blackfoot research group, and the audience at CLA 2008 for insightful suggestions and feedback.

¹ Blackfoot is a Plains Algonquian language spoken in Southern Alberta and Northwestern Montana. All data are from the author's fieldwork on the Siksiká and Kainaa dialects. Abbreviations are as follows: 1/2/3/4: 1st/2nd/3rd/4th (obviative) person; AI = animate intransitive; CONJ(unct order); DEM(onstrative); DUR(ative); FUT(ure); INV(erse theme); INVIS(ible); MOD(al); OBV(iative); PROX(imate); PL(ural); TA = transitive inanimate.

Various analyses of Algonquian CCA have been proposed, and all can be grouped into two basic categories. One type of analysis is that CCA verbs are control verbs (e.g. Dahlstrom 1995). Under this account, the goal of CCA is merged in the matrix clause and binds a null PRO in the subordinate clause. As such, agreement is not cross-clausal, but indeed local, but binding takes place cross-clausally.

The alternative analysis is that CCA verbs are raising verbs (e.g. Massam 1985; Bruening 2001). Under this account, the goal of CCA is merged in the subordinate clause, and raises to check uninterpretable features on the matrix verb. Most recently, Branigan and MacKenzie (2002) have argued for a raising-type analysis of CCA in Innu-aimûn. Specifically, they claim that CCA is an instance of long distance A'-agreement resulting from topicalization of the CCA controller within the subordinate clause.

The goal of this paper is to explore whether Branigan and MacKenzie's (2002) account of CCA in Innu-aimûn can be applied to the same phenomenon in Blackfoot. Indeed, I will argue that it cannot. I will demonstrate that the A'-agreement analysis incorrectly predicts that only the highest argument in the subordinate CP can control CCA. Additionally, I will demonstrate that CCA in Blackfoot marks contrastive focus, and not topic, as in Innu-aimûn. Consequently, the information structural effects of Blackfoot CCA support a control-type analysis, in which a focused DP in the matrix clause is coreferential with a subordinate DP.

This paper will proceed as follows. In §2, I provide more details on Branigan and MacKenzie's long distance A'-agreement analysis of CCA in Innu-aimûn, and in §3, I demonstrate that this account is not tenable for Blackfoot. In §4, I provide evidence for the claim that CCA in Blackfoot marks contrastive focus, and in §5, I sketch out the beginnings of an analysis that builds on the information structural properties of Blackfoot CCA. Finally, in §6 is the conclusion.

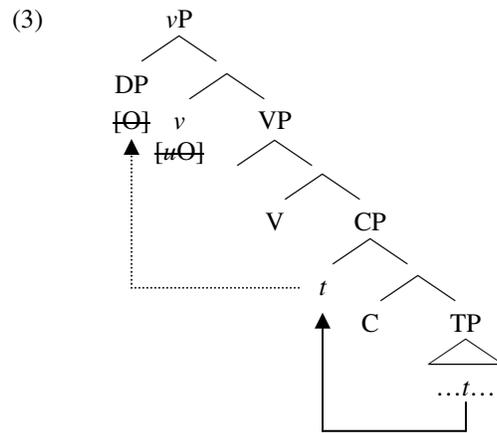
2. CCA as Long Distance A'-Agreement

As noted, Branigan and MacKenzie (2002) propose that CCA in Innu-aimûn is an instance of long distance A'-agreement (or LDA). Under this analysis, CCA, like any other type of agreement, is the reflex of a basic probe-goal relation.

The probe is matrix ν , which bears an uninterpretable A' feature. Branigan and MacKenzie refer to this feature as the "O feature." The matrix probe seeks the closest DP with a matching interpretable feature.

The goal is the subordinate subject or object, which bears an unchecked O-feature. This DP undergoes LF raising to the Specifier of matrix ν to satisfy the checking requirement.

Important to Branigan and MacKenzie's analysis is the observation that in Innu-aimûn, the goal of CCA is a discourse topic². They assume that this DP is topicalized, and that as a result, it appears at the left edge of the subordinate CP phase, where it is visible to matrix probe. In essence, the topicalization structure in the subordinate clause enables the probe-goal relation between matrix *v* and the subordinate DP. The checking and movement mechanisms of the LDA analysis are schematized in (3) below.



3. Is Blackfoot CCA also A'-Agreement?

Under the LDA analysis, the leftmost DP in the subordinate clause is targeted for CCA. However, in Blackfoot, the CCA controller need not be clause-initial:

- (4) [Ana Rosie kitáísstaak [anisk John kiistóyi kitááhkoksisawaatahsi]]
 ana R. kit-a-isstaat-ok anisk J. kiistoyi kit-aahk-oksisawaat-a-hsi
 DEM R. 2-DUR-want.TA-INV DEM J. 2SG 2-MOD-visit.TA-2:3-CONJ
 'Rosie wants you to visit John'

- (5) [Ana Rosie áísstaatsi [niistóyi anisk Leo ninááhkoksisawaatahsi]]
 ana R. a-isstaat-yii niistoyi anisk L. nit-aahk-oksisawaat-a-hsi
 DEM R. DUR-want.TA-3:4 1SG DEM L. 1-MOD-visit.TA-2:3-CONJ
 'Rosie wants me to visit Leo'

In (4) and (5), the matrix verb agrees with a non-leftmost DP. As in Innu-aimûn, the leftmost DP refers to previously established, or topical, information. However, at least in these examples, CCA does not target the topicalized DP, but the topicalized DP intervenes between the matrix probe and its subordinate

² In Innu, *wh*-phrases can also be targeted for CCA. Branigan and MacKenzie draw a distinction between this type (in which the beacon is a *wh*-feature) and the other (in which the beacon is a TOPIC feature).

goal. For the LDA account to be plausible, we must consider how the probe-goal relation can be maintained when there is an intervening DP. Two options are discussed in the following section.

3.1. The Structure of the Left Periphery

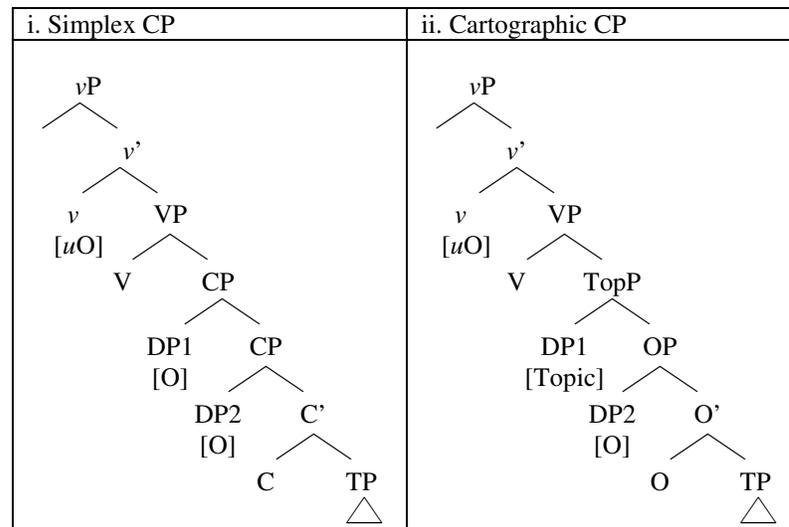
Because the CCA goal and the topic can be two different DPs, it is necessary to consider the articulated structure of the left clausal periphery. Specifically regarding the problematic examples above, the question is: where are the preverbal DPs in the subordinate clauses of (4) and (5) located in the clausal structure? Current theory allows for two options.

The first option is to represent the CP layer as a simplex structure, with a single C head. Under this proposal, both preverbal DPs occupy Specifier positions of a single CP, and both bear the same A' feature (e.g. the "O-feature, in Branigan and MacKenzie's terms).

The second option is to represent the CP layer cartographically, following Rizzi 1997 (and others). Under this proposal, the leftmost DP appears in Spec, TopP and bears a [topic] feature. The other DP is in a lower CP projection, and bears a different feature (which can be referred to as the O-feature).

Both options are represented schematically in (6) below.

(6) Two options for representing subordinate clauses



In fact, neither structure accounts for the word order in (4) and (5), in which a topicalized DP precedes the CCA controller.

Under the simplex CP proposal, both DP1 and DP2 are candidate goals for A'-agreement. However, as seen in (4) and (5), it is not the highest DP that

checks the *uO* feature, and this is a violation of Chomsky’s (2000) Minimal Link Condition.

Alternatively, under the cartographic CP proposal, only DP2 bears the highest matching feature. However, because DP2 is not at a phase edge³, it is not visible to matrix *v*. This checking relation violates the Phase Impenetrability Condition.

One possibility is that DP1 and DP2 are equidistant from the probe (i.e. both are eligible goals for CCA). This hypothesis predicts that the reversed word order (in which the CCA goal precedes a preverbal topicalized DP) should also be possible. However, this word order pattern is unattested in my data, suggesting that equidistance is unlikely.

In sum, the long distance A’-agreement analysis proposed by Branigan and MacKenzie for Innu-aimûn cannot account for CCA in Blackfoot.

4. Blackfoot CCA Marks Contrastive Focus

Comparing Innu-aimûn and Blackfoot, variation in the syntax of CCA corresponds with variation in the information structural properties of CCA controllers. Branigan and MacKenzie claim that CCA in Innu-aimûn marks topic. In this section, I demonstrate that CCA in Blackfoot marks contrastive focus.

Contrastive Focus singles out one member of a contrast set and eliminates other alternatives (Gundel 1999; Rooth 1985). Three observations about Blackfoot CCA suggest that it marks contrastive focus. First, it yields an “only” interpretation. Second, it forces a referential reading. And third, it affects truth values. Each of these will be considered in turn.

4.1. CCA Yields an “only” Interpretation

The comments of my consultant, Beatrice Bullshields, strongly suggest that the role of CCA is to single out a particular DP, much in the manner of contrastive focus. Consider the examples below.⁴

- (7) *Ana Rosie nitáísstaak ninááhksspommowahsi ani Leo*
 ana R. nit-a-isstaa(t)-ok nin-aahk-sspommo-a-hsi ani Leo
 DEM R. 1-DUR-want.TA-INV 1-MOD-help.TA-1:3-CONJ DEM Leo
 ‘Rosie wants ME to help Leo.’
 → BB: “Nobody else but me, *nitaisstaak*”

- (8) *Nitáísstaata ana Leo kitááhksinooyissi*
 nit-a-isstaat-a an-wa L. kit-aahk-inoo-yissi
 1-DUR-want.TA-1:3 DEM-PROX L. 2-MOD-see INV.CONJ

³ This is assuming that the edge of the CP layer corresponds with the edge of a phase (Chomsky, to appear).

⁴ Comments are introduced with an arrow (→) and the consultant’s initials.

'I want LEO to see you'

→ BB: 'It's important. You only want Leo; you're picking him out'

- (9) *Nitssksinowa áákihpiyi anahk Leo apinákosi*
 nit-ssksino-a aak-ihpiyi an-wa-hk L. apinakosi
 1-know.TA-1:3 FUT-dance.AI DEM-PROX-INVIS L. tomorrow

'I know Leo will dance tomorrow'

→ BB: 'You know for sure that LEO will dance tomorrow; you're not sure about the others'

What (7) through (9) illustrate is that, when asked to comment on the differences between sentences with and without CCA, my consultant identifies the CCA clause as singling out a referent. This description is consistent with that of contrastive focus.

4.2. CCA Forces a Referential Reading

As mentioned, contrastive focus is the identification of a unique referent from amongst a contrast set. In this way, contrastive focus is referential (Gundel 1999).

In Blackfoot, non-referential expressions cannot control CCA. In the examples that follow, a series of constructions, all of which translate into English with a non-referential DP (e.g. someone) are shown to be ungrammatical with CCA.

existential verb

- (10) *Nitátssta(*ata) omááhkitstssi mátapi áhpiyi*
 nit-a-issstaa(t-a) om-aahk-itstsi-hsi matapi a-ihpiyi
 1-DUR-want.(TA-1:3) 3-MOD-exist-CONJ person DUR-dance

'I want someone to dance'

Lit: 'I want there to be a person who dances'

unspecified subject construction

- (11) *Nitsíkssta(*ata) ámo sí'kaan ááhkokaahkanahsi*
 nit-iksstaa(t-a) amo sí'kaan aahk-ok-(w)aahkan(i)-a-hsi
 1-want.(TA-1:3) DEM blanket MOD-?-sew.TA-3:4-CONJ

'I want someone to sew this blanket'

bare noun

- (12) *Nitátssta(*ata) mátapi ninááhksspomoyissi*
 nit-a-issstaa(t-a) matapi nin-aahk-sspomo-yissi
 1-DUR-want.(TA-1:3) person 1-MOD-help.TA-INV.CONJ

'I want someone to help me'

Lit: 'I want some person to help me'

In addition to the constructions in (10) through (12), bare plurals also yield a non-referential interpretation. CCA is grammatical with bare plurals, but it changes the interpretation from non-referential to referential. Consider (13) (without CCA) and (14) (with CCA) below.

- (13) *Nitáíssta mátapiksi ninááhksspomoyissi*
 nit-a-isstaa matapi-iksi nin-aahk-sspomo-yissi
 1-DUR-want.AI person-PL 1-MOD-help.TA-INV.CONJ
 ‘I want people to help me’
 → BB: ‘I just need help from anyone’
- (14) *Nitáísstaatayi mátapiksi ninááhksspomoyissi*
 nit-a-isstaat-a-yi matapi-iksi nin-aahk-sspomo-yissi
 1-DUR-want.TA-1:3-3PL person-PL 1-MOD-help.TA-INV.CONJ
 ‘I want certain people to help me’
 → BB: ‘You have specific people in mind’

In sum, the observation that CCA forces a referential interpretation is consistent with the hypothesis that the CCA controller is contrastively focused.

4.3. CCA Affects Truth Values

In languages like English, contrastive focus can affect truth values (Szendrői 2004). Consider the example in (15).

- (15) **Context:** John gave a book and a pen to Sue. He gave nothing else to anybody.
- a. John (only) gave a book to SUE TRUE
 b. John (only) gave a BOOK to Sue. FALSE

In (15), the placement of focal stress changes the truth value of the sentence. In Blackfoot, CCA can affect truth values in the same way. Consider the following:

- (16) **Context:** I want to see many dancers dance at the gathering.
- a. *Nitsíkssta ana John omááhkitsspiyissi omi itohkanao’pi*
 ‘I want John to dance at our gathering’ NO CCA, TRUE
- b. *Nitsíkstaata ana John omááhkitsspiyissi omi itohkanao’pi*
 ‘I want JOHN to dance at our gathering’ CCA, FALSE

CCA has the same pragmatic effect as focal stress does in English. In (16a), there is no CCA, and as such, none of the DPs are focused. However, in (16b), there is CCA with the DP *ana John*. This form of agreement has the effect of singling out the referent John and eliminating other alternatives. As such, the

implicature is that the speaker wants to see *only* John, and no other dancers. This is false in the context of (16).

4.4. Summary

In sum, I have demonstrated that the goal of CCA in Blackfoot meets the criteria for contrastive focus. It yields an ‘only’ interpretation, it must be used with referential DPs, and it affects truth values. In the following section, I explore the consequences of this claim for the syntax of Blackfoot CCA.

5. Towards a New Analysis: The Syntax of Focus

In this section, I consider the implications of the contrastive focus hypothesis for the syntax of Blackfoot CCA, and I sketch out the beginnings of an analysis that builds on the information structural properties of CCA.

Many researchers distinguish contrastive focus from other types of focus constructions by identifying contrastive focus as the locus of focus-sensitive operators, such as *only* (Gundel 1999, Kiss 1998; Rooth 1985, etc.). The hypothesis that I explore in this section is that the presence of a (null) focus operator effectively triggers CCA.

5.1. A Proposal for Blackfoot CCA

What is the role of the focus operator in the clause? Semantically, focus operators are said to “associate” with focused constituents (Rooth 1985). For example, in the sentence *I only want LEO to dance*, the operator *only* associates with the DP *Leo*. Syntactically, the focus operator is thought to merge with a focused DP to form a syntactic constituent (Kiss 1998).

My proposal for Blackfoot CCA is as follows. Suppose there is a focus-sensitive operator in the matrix clause of CCA constructions. This operator licenses a null DP (PRO), which is overtly realized in the matrix clause only via verb agreement. The focused DP PRO is coreferential with a full DP in the subordinate clause.

As noted by Branigan and MacKenzie (2002), a binding relation between a matrix PRO and an overt subordinate DP should constitute a classic Condition C violation. However, this problem is obviated if we assume that Condition C is not active in Blackfoot. This proposal has been put forth for other Algonquian languages (e.g. Russell and Reinholtz 1997 for Swampy Cree; Bruening 2005 for Passamaquoddy), but it is yet unclear whether Blackfoot behaves in a similar fashion with respect to Condition C. However, if Condition C is found to be inactive in Blackfoot, then the hypothesis that a null PRO is merged in the matrix clause along with the focus operator and binds a full DP in the subordinate clause is a feasible account.

5.2. Prediction: Overt Focus Operators

In the previous section, it was assumed that the focus operator in CCA constructions is null. However, there is an overt focus operator in Blackfoot, as well, as shown in (17) below.

- (17) *ikak-* ‘only, even, just’
(Frantz and Russell 1989)

The hypothesis that CCA marks contrastive focus allows us to make certain predictions about the distribution of *ikak-*. The first of these predictions is that if the presence of a focus operator triggers CCA, then *ikak-* should be possible with CCA verbs, but not with non-CCA verbs. This prediction appears to be borne out.⁵

- (18) *Nitsikaksstaata* *ana* *Leo* *omahkihpiyi’si*
nit-**ikak**-sstaat-a an-wa L. om-aahk-ihpiyi-hsi
1-**only**-want.TA-1:3 DEM-PROX L 3-MOD-dance-CONJ
‘I only want LEO to dance’

- (19) **Nitsikakssta* *ana* *Leo* *omahkihpiyi’si*
nit-**ikak**-ssta an-wa L. om-aahk-ihpiyi-hsi
1-**only**-want.AI DEM-PROX L. 3-MOD-dance-CONJ
intended: ‘I only want LEO to dance’

The second prediction is that if the focused constituent is merged in matrix clause, then *ikak-* should be possible on matrix, but not subordinate, verbs. This prediction also appears to be borne out.

- (20) **Nitsikstaata* *ana* *Leo* *omahkikakihpiyi’si*
nit-ikstaat-a an-wa L. om-aahk-**ikak**-ihpiyi-hsi
1-want.TA-1:3 DEM-PROX L 3-MOD-**only**-dance-CONJ
intended: ‘I want only LEO to dance’

In sum, the distribution of *ikak-* ‘only’ is consistent with the hypothesis that there is a focus operator in CCA matrix clauses. Under this analysis, the presence of the focus operator effectively triggers CCA because of its association with a null pronominal argument, which controls object agreement on the matrix verb.

⁵ Data presented in this section of the handout are preliminary, and need to be verified again with my consultant(s).

6. Conclusion

In this paper, I have shown that a long distance A'-agreement analysis, such as that proposed by Branigan and MacKenzie (2002) for Innu-aimûn, is not tenable for Blackfoot. This analysis incorrectly predicts that only the highest argument in the subordinate clause should be able to control CCA. I demonstrate that, in Blackfoot, the goal of CCA is contrastively focused, and is not necessarily the highest argument in the subordinate clause. Building on this observation, I propose an analysis of Blackfoot CCA that assumes that a focus operator in the matrix clause licenses a focused constituent which controls agreement. Under this analysis, CCA is the reflex of an operator-argument relation in the matrix clause.

To conclude, it is interesting to note that CCA in both Innu-aimûn and Blackfoot serves an information structural role, but that the languages vary with respect to what CCA signals. In Innu-aimûn, it appears to mark topic, but in Blackfoot it marks focus. That this information structural difference between the two languages corresponds to a syntactic difference is a fascinating source of cross-Algonquian variation.

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