FINNISH FIRST CONJUNCT AGREEMENT & THE DIRECTION OF AGREE[*][†]

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1 INTRODUCTION

Two central issues:

(i) What is the appropriate analysis of first conjunct agreement (FCA) in Finnish and similar languages?

(ii) In which direction does Agree operate?

Finnish FCA (van Koppen 2005) patterns similarly to FCA in a number of other languages, including Arabic (Aoun et al. 1994), Biblical Hebrew (Doron 2000), and Dutch (van Koppen 2005).

Multiple analyses of FCA are compatible with the facts of these other languages, but Finnish provides evidence in favor of a particular approach.

The analysis consistent with the Finnish data bears on a recent debate about the direction of Agreee (Adger 2003, Baker 2008, Zeijlstra 2010, Preminger 2013, Bjorkman and Zeijlstra 2014, Preminger and Polinsky 2015, Carstens 2015).

2 FIRST CONJUNCT AGREEMENT IN FINNISH

FCA is a phenomenon wherein a verb or other inflection-bearing element (e.g. a complementizer) realizes agreement with the first conjunct of a coordinated DP, rather than agreement with the full, conjoined DP ("full agreement").[1]

Colloquial Finnish demonstrates FCA with post-verbal subjects, but Finnish FCA has received little attention (although see van Koppen (2005)).

[1]FCA and similar phenomena are attested in at least Arabic (Aoun et al. 1994; 2010), Biblical Hebrew (Doron 2000), Brazilian Portuguese (Munn 1999), Dutch (van Koppen 2005; 2012), English (Munn 1999, Sobin 2014), Hindi-Urdu (Bhatt and Walkow 2013), Modern Greek (Doron 2000), Modern Irish (McCloskey 1986), Serbo-Croatian (Bošković 2009), Spanish (Doron 2000), and Tsez (Benmamoun et al. 2009).

2.1 CLAUSES WITH A SINGLE EXPONENT OF AGREEMENT

Pre-verbal subjects obligatorily trigger full agreement (1); FCA is unacceptable (2). Post-verbal subjects trigger full agreement (3) or FCA (4). [2]

(1) S V$_{\text{PL}}$

    a. **Minä ja rumpali-mme**   tul-**imme**   silloin.
       I   **and drummer-POSS.1PL** come-**PST.1PL** then

      "Then our drummer and I came."

    b. Ja **mä ja kaksi muu-ta**   **tyttö-ä**   ol-**emme** sitten.
       And **I** **and two** **other-PART girl-PART** be-**1PL**   then

      "And then there is me and two other girls."

(2) * S V$_{\text{FCA}}$

    a. * **Minä ja rumpali-mme**   tul-**in**   silloin.
       I   **and drummer-POSS.1PL** come-**PST.1SG** then

      "Then our drummer and I came."

    b. * Ja **mä ja kaksi muu-ta**   **tyttö-ä**   **oon**   sitten.
       And **I** **and two** **other-PART girl-PART** be.**1SG** then.

      "And then there is me and two other girls."

(3) V$_{\text{PL}}$ S

    a. Silloin tul-**imme**   **minä ja rumpali-mme**.
       then   come-**PST.1PL** **I**   **and drummer-POSS.1PL**

      "Then our drummer and I came."

    b. Ja   sitten ol-**emme mä ja kaksi muu-ta**   **tyttö-ä**.
       And then be-**1PL** **I** **and two** **other-PART girl-PART**

      "And then there is me and two other girls."

(4) V$_{\text{FCA}}$ S

    a. Silloin tul-**in**   **minä ja rumpali-mme**.   (Google)
       then   come-**PST.1SG** **I**   **and drummer-POSS.1PL**

      "Then our drummer and I came."

    b. Ja   sitten **oon**   **mä ja kaksi muu-ta**   **tyttö-ä**. (Suomi24)
       And then be.**1SG** **I** **and two** **other-PART girl-PART**

      "And then there is me and two other girls."

2.2 CLAUSES WITH MULTIPLE EXPONENTS OF AGREEMENT

In clauses containing auxiliaries and participles, the auxiliary precedes the participle. Both the auxiliary and participle agree with the subject, the participle in number only. Subjects may appear in one of three positions:

(i) Preceding the auxiliary and participle

(ii) Medially between the auxiliary and participle

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[2] Sentences in which FCA is realized were gathered from Google and a corpus of internet chat data, Suomi24. Sources are given for attested sentences below. Attested sentences were modified and acceptability of these modified sentences was judged by native speakers.

(iii) Following the auxiliary and participle

In case (i), full agreement must be realized on both the auxiliary and participle (5). Note that examples in (6) are unacceptable if *either* the auxiliary or participle realizes singular agreement.

(5) S Aux$_{PL}$ Ptc$_{PL}$

    a. **Minä ja ystävä-ni** ol-**emme** odotta-**neet** tätä jo kauan.
       I and friends-POSS.1SG be-**1PL** wait-**PTC.PL** this already long

       "My friends and I have already waited for this for a long time."

    b. **Sinä ja Kristi R.** ol-**ette** anta-**neet** vahv-oja ja erittäin
       You and Kristi R. be-**2PL** give-**PTC.PL** strong-PART.PL and very

       varma-ksi väit-etty-jä ennakkopäätö-ksiä.
       certain-TRANS allege-PTC-PART.PL precedent-PART.PL

       "You and Kristi R. have given strong and allegedly very certain precedents."

(6) * S Aux$_{FCA}$ Ptc$_{FCA}$ (unacceptable if either the auxiliary of participle realizes FCA)

    a. * **Minä ja ystävä-ni** ol-**en** odotta-**nut** tätä jo kauan.
       I and friends-POSS.1SG be-**1SG** wait-**PTC.SG** this already long

       "My friends and I have already waited for this for a long time."

    b. * **Sinä ja Kristi R.** ol-**et** anta-**nut** vahv-oja ja erittäin
       You and Kristi R. be-**2SG** give-**PTC.SG** strong-PART.PL and very

       varma-ksi väit-etty-jä ennakkopäätö-ksiä.
       certain-TRANS allege-PTC-PART.PL precedent-PART.PL

       "You and Kristi R. have given strong and allegedly very certain precedents."

In case (ii), full agreement (7) or FCA (8) may be realized on the auxiliary, but only full agreement may be realized on the participle (9).

(7) Aux$_{PL}$ S Ptc$_{PL}$

    a. Tätä ol-**emme minä ja ystävä-ni** odotta-**neet** jo kauan.
       This be-**1PL** **I and friends-POSS.1SG** wait-**PTC.PL** already long

       "My friends and I have already waited for this for a long time."

    b. Vahv-oja ja erittäin varma-ksi väit-etty-jä
       Strong-PART.PL and very certain-TRANS allege-PTC-PART.PL

       ennakkopäätö-ksiä ol-**ette sinä ja Kristi R.** anta-**neet**.
       precedent-PART.PL be-**2PL** **you and Kristi R.** give-**PTC.PL**

       "You and Kristi R. have given strong and allegedly very certain precedents."

(8) Aux$_{FCA}$ S Ptc$_{PL}$

    a. Tätä ol-**en minä ja ystävä-ni** odotta-**neet** jo kauan. (Google)
       This be-**1SG** **I and friends-POSS.1SG** wait-**PTC.PL** already long

       "My friends and I have already waited for this for a long time."

    b. Vahv-oja ja erittäin varma-ksi väit-etty-jä
       Strong-PART.PL and very certain-TRANS allege-PTC-PART.PL

       ennakkopäätö-ksiä ol-**et sinä ja Kristi R.** anta-**neet**.
       precedent-PART.PL be-**2SG** **you and Kristi R.** give-**PTC.PL**

       "You and Kristi R. have given strong and allegedly very certain precedents."

(9) * Aux$_{PL/FCA}$ S Ptc$_{FCA}$

a. * Tätä ol-**emme/-en minä ja ystävä-ni** odotta-**nut** jo kauan.
   This be-**1PL/-1SG I and friends-POSS.1SG** wait-**PTC.SG** already long

   "My friends and I have already waited for this for a long time."

b. * Vahv-oja ja erittäin varma-ksi väit-etty-jä
   Strong-PART.PL and very certain-TRANS allege-PTC-PART.PL

   ennakkopäätö-ksiä ol-**ette/-et sinä ja Kristi R.** anta-**nut**.
   precedent-PART.PL be-**2PL/-2SG you and Kristi R.** give-**PTC.SG**

   "You and Kristi R. have given strong and allegedly very certain precedents."

Finally, in case (iii), either full agreement (10) or FCA (11) may be realized on either the auxiliary and participle. However, the auxiliary and participle must *match*. That is, the auxiliary cannot realize FCA and the participle full agreement or vice versa (12), (13).

(10) Aux_{PL} Ptc_{PL} S

a. Tätä ol-**emme** odotta-**neet minä ja ystävä-ni** jo kauan.
   This be-**1PL** wait-**PTC.PL I and friends-POSS.1SG** already long

   "My friends and I have already waited for this for a long time."

b. Vahv-oja ja erittäin varma-ksi väit-etty-jä
   Strong-PART.PL and very certain-TRANS allege-PTC-PART.PL

   ennakkopäätö-ksiä ol-**ette** anta-**neet sinä ja Kristi R.**
   precedent-PART.PL be-**2PL** give-**PTC.PL you and Kristi R.**

   "You and Kristi R. have given strong and allegedly very certain precedents."

(11) Aux_{FCA} Ptc_{FCA} S

a. Tätä ol-**en** odotta-**nut minä ja ystävä-ni** jo kauan.
   This be-**1SG** wait-**PTC.SG I and friends-POSS.1SG** already long

   "My friends and I have already waited for this for a long time."

b. Vahv-oja ja erittäin varma-ksi väit-etty-jä
   Strong-PART.PL and very certain-TRANS allege-PTC-PART.PL

   ennakkopäätö-ksiä ol-**et** anta-**nut sinä ja Kristi R.** (Suomi24)
   precedent-PART.PL be-**2SG** give-**PTC.SG you and Kristi R.**

   "You and Kristi R. have given strong and allegedly very certain precedents."

(12) * Aux_{PL} Ptc_{FCA} S

a. * Tätä ol-**emme** odotta-**nut minä ja ystävä-ni** jo kauan.
   This be-**1PL** wait-**PTC.SG I and friends-POSS.1SG** already long

   "My friends and I have already waited for this for a long time."

b. * Vahv-oja ja erittäin varma-ksi väit-etty-jä
   Strong-PART.PL and very certain-TRANS allege-PTC-PART.PL

   ennakkopäätö-ksiä ol-**ette** anta-**nut sinä ja Kristi R.**
   precedent-PART.PL be-**2PL** give-**PTC.SG you and Kristi R.**

   "You and Kristi R. have given strong and allegedly very certain precedents."

(13) * Aux_{FCA} Ptc_{PL} S

a. * Tätä ol-**en** odotta-**neet minä ja ystävä-ni** jo kauan.
   This be-**1SG** wait-**PTC.PL I and friends-POSS.1SG** already long

   "My friends and I have already waited for this for a long time."

Word Order	Full Agreement	FCA
S V	✔	✗
V S	✔	✔

Figure 1: Agreement patterns in single-verb clauses.

Word Order	Full Agreement (auxiliary)	FCA (auxiliary)	Full Agreement (participle)	FCA (participle)
S Aux Ptc	✔	✗	✔	✗
Aux S Ptc	✔	✔	✔	✗
Aux Ptc S	✔	✔	✔	✔

Figure 2: Agreement patterns in clauses containing auxiliaries and participles. Note that in Aux Ptc S clauses, the auxiliary and participle must match.

    b. * Vahv-oja   ja erittäin varma-ksi   väit-etty-jä
           Strong-PART.PL and very   certain-TRANS allege-PTC-PART.PL
           ennakkopäätö-ksiä ol-**et**   anta-**neet**   **sinä ja**   **Kristi R.**
           precedent-PART.PL be-**2SG** give-**PTC.PL** **you** **and Kristi R.**
           "You and Kristi R. have given strong and allegedly very certain precedents."

Generalization about Finnish FCA (informal): An agreement-bearing element must realize full agreement if it follows the subject in linear order. It optionally realizes FCA if it precedes the subject. If multiple agreement-bearing elements appear in the same clause, they must match unless the subject intervenes between the two.

2.3 CLAUSE STRUCTURE

I assume a clause structure for finite clauses in Finnish based on Holmberg et al. (1993) and Holmberg and Nikanne (2002). In clauses containing a single verb, this verb occupies F (Finite), which is above T. Main verbs, auxiliaries, and (when present) negation raise to F. Subjects may occupy Spec, FP or may remain below F.[3]
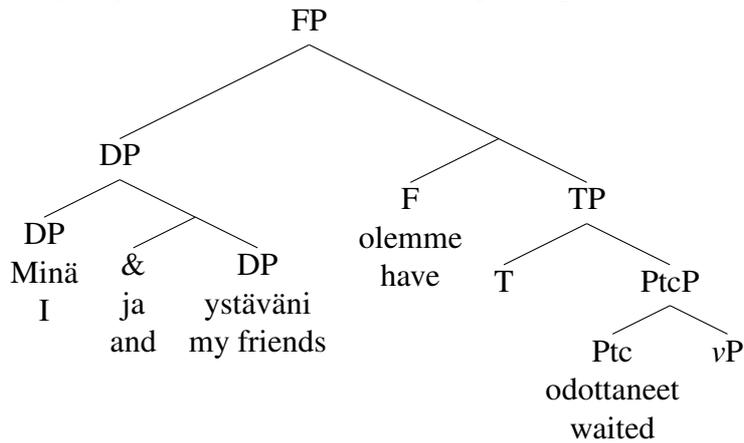
  (14)   a. Pre-verbal subject
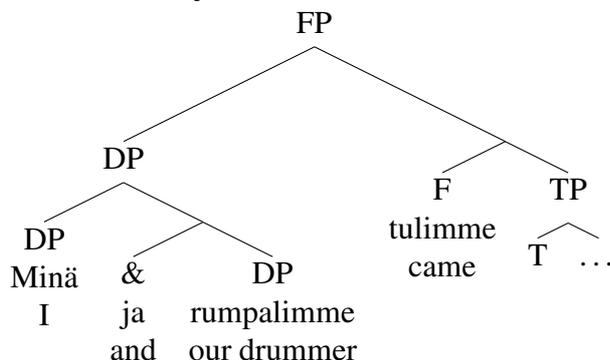
      b. Post-verbal subject

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[3]In (14b), I show the post-verbal subject in Spec, TP for the sake of concreteness. However, I remain non-commital about the position of subjects in these clauses. For the analyses below, it suffices that the subject is in a position c-commanded by F.

FP

AdvP
silloin
then

F
tulimme
came

TP

DP

DP
Minä
I

&
ja
and

DP
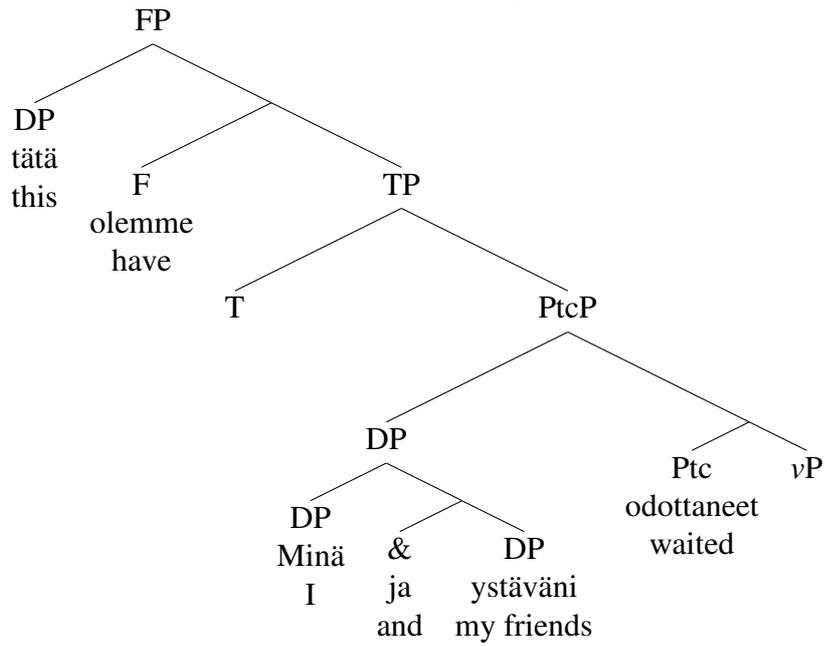rumpalimme
our drummer

T …
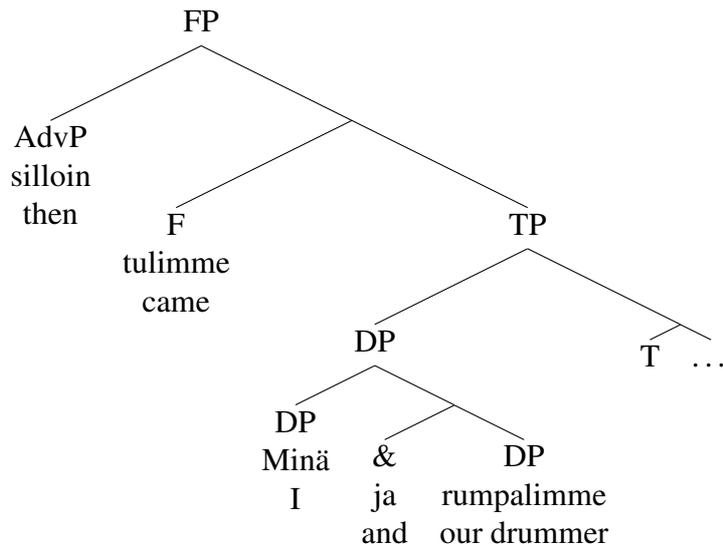
In clauses containing both auxiliaries and participles, the auxiliary occupies F and the participle occupies a Ptc head between *v* and T. Subjects may occupy Spec, FP, Spec, PtcP, or Spec, *v*P.
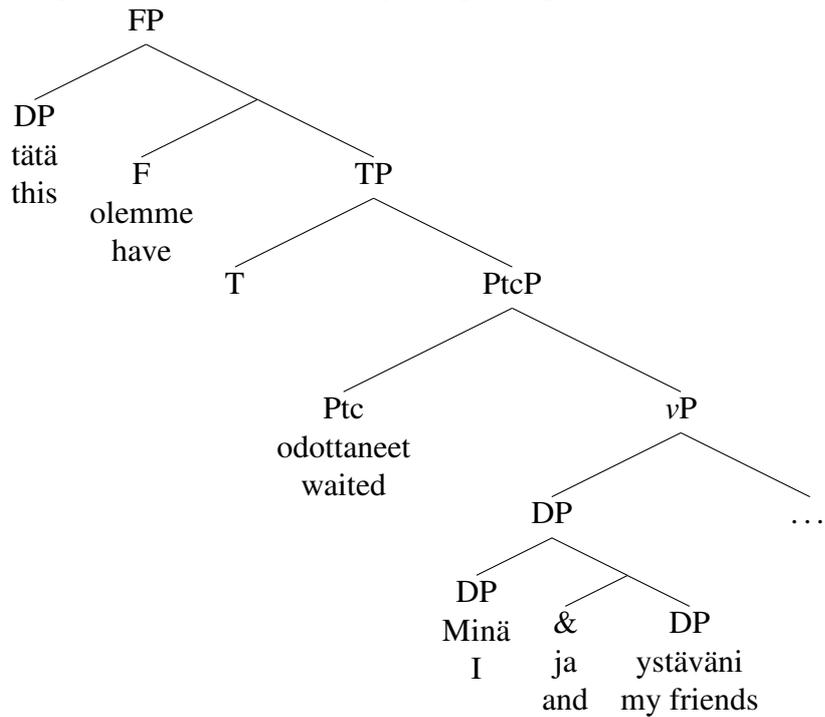
(15)   a. Subject precedes both auxiliary and participle

FP

DP

DP
Minä
I

&
ja
and

DP
ystäväni
my friends

F
olemme
have

TP

T

PtcP

Ptc
odottaneet
waited

*v*P

6

b. Subject appears between auxiliary and participle

```
                          FP
            ┌──────────────┴──────────────┐
          DP                             │
          tätä          ┌────────────────┴──────────┐
          this          F                           TP
                      olemme        ┌────────────────┴────────────┐
                      have          T                            PtcP
                                              ┌───────────────────┴──────────┐
                                             DP                          ┌───┴────┐
                                    ┌─────────┴──────┐                  Ptc      vP
                                   DP          ┌─────┴─────┐         odottaneet
                                   Minä        &          DP          waited
                                   I           ja         ystäväni
                                               and        my friends
```

c. Subject follows both auxiliary and participle

```
                          FP
            ┌──────────────┴──────────────┐
          DP                             │
          tätä          ┌────────────────┴──────────┐
          this          F                           TP
                      olemme        ┌────────────────┴────────────┐
                      have          T                            PtcP
                                              ┌───────────────────┴──────────┐
                                             Ptc                            vP
                                        odottaneet            ┌──────────────┴──────┐
                                          waited             DP                    ...
                                                      ┌───────┴──────┐
                                                     DP        ┌─────┴─────┐
                                                     Minä      &          DP
                                                     I         ja         ystäväni
                                                               and        my friends
```

3 Two Analyses of Finnish First Conjunct Agreement

These following analyses differ in two crucial aspects:

(i) Whether Agree operates downward only or can operate bidirectionally

(ii) Whether Agree feeds movement to specifier positions

Despite these differences, these analyses offer the same explanation of the possibility of FCA with post-verbal subjects. They differ only in their explanations of obligatory full agreement

with pre-verbal subjects.

Note that there are several alternative analyses of FCA that are not discussed here. Several recent proposals for Arabic FCA rely on post-cyclic, "late" syntactic operations (Soltan 2007, Larson (2013)). These analyses are empirically inadequate in the case of Finnish (see Appendix), as well as Arabic (Crone 2015).

Post-syntactic accounts of FCA cannot easily explain why last conjunct agreement (LCA) is not possible with pre-verbal subjects. Note that other languages, including Serbo-Croatian (Bošković 2009) and Hindi-Urdu (Bhatt and Walkow 2013), do exhibit both FCA and LCA. In these cases, a post-syntactic analysis is more appropriate.

3.1 ANALYSIS 1: CONSTRAINTS ON MOVEMENT

Several analyses of FCA in Biblical Hebrew (Doron 2000), Dutch (van Koppen 2012), and Arabic (Crone 2015) have derived the phenomenon from constraints on movement to specifier positions and the coordinate structure constraint (CSC; Ross 1967).

Subject-verb agreement is realized via downward Agree (Chomsky 2000, 2001):[4]

(16) A functional head P (the "probe") Agrees with a node G (the "goal") iff:
   a. P has unvalued, uninterpretable φ features ($u\varphi$ features).
   b. G has valued, interpretable φ features.
   c. P c-commands G.
   d. There is no node H such that P c-commands H, H asymmetrically c-commands G, and H has valued φ features.

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[4]I do not adopt the activity condition (Chomsky 2000, 2001), which requires both the probe and the goal to have unvalued, uninterpretable features. For subject-verb agreement, it is generally assumed that probes have unvalued φ features and valued Case features, whereas goals have valued φ features and unvalued Case features. Relaxing this assumption is necessary for my proposal, as I assume that a single goal may be Agreed with by multiple probes. Assuming the activity condition would require that the goal possess two types of unvalued features. See Nevins (2004), Bošković (2007), Pesetsky and Torrego (2007), Bobaljik (2008), Zeijlstra (2010), Merchant (2011) and Preminger (2014) for theories of agreement that do not assume the activity condition.
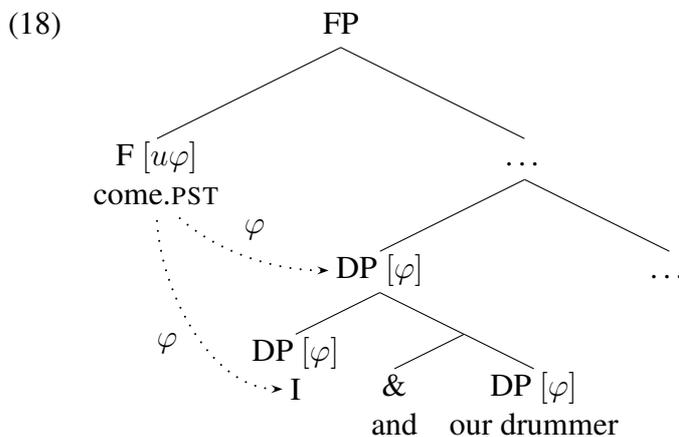
The activity condition is often employed to ensure a connection between agreement and case. Instead, I assume that agreement is case-discriminating in the sense of Preminger (2014) (cf. Bobaljik 2008). Case is determined syntactically and only nominative DP or functional heads are potential goals for Agree.

(17) a. PP
$\qquad$ P $[u\varphi]$ ... G $[\varphi]$ ...
$\qquad\qquad\qquad \varphi$

b. PP
$\qquad$ P $[u\varphi]$ H $[\varphi]$ G $[\varphi]$ ...
$\qquad\qquad \varphi \qquad \varphi$
$\qquad\qquad \times$
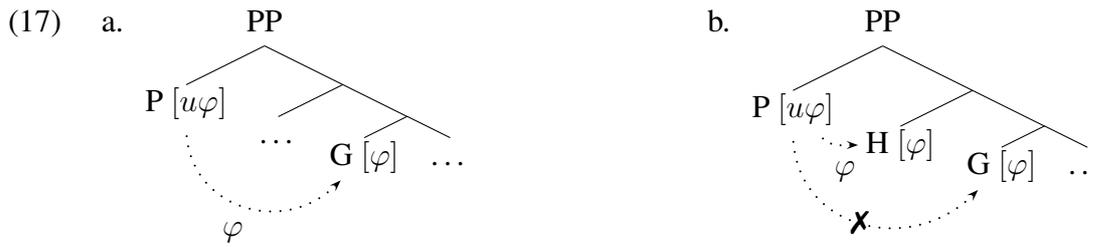
Since agreement-bearing elements appear in both F and Ptc in Finnish, I assume that both functional heads enter the derivation with $u\varphi$ features.

In addition, movement of DP to subject position Spec, XP requires Agree relationship between X and the moved DP (Chomsky 2000, 2001; Preminger 2014). In the case of Finnish, movement to either Spec, FP or Spec, PtcP requires an Agree relationship between F or Ptc and the moved DP.

In clauses with a single exponent of agreement, F probes its c-command domain to Agree.

(18) FP
$\qquad$ F $[u\varphi]$ ...
$\qquad$ come.PST $\qquad \varphi$
$\qquad\qquad\qquad$ DP $[\varphi]$ ...
$\qquad \varphi$
$\qquad\qquad$ DP $[\varphi]$ & DP $[\varphi]$
$\qquad\qquad$ I $\qquad$ and $\quad$ our drummer

Both the first conjunct and the full conjunction are potential goals for Agree:

(i) Neither asymmetrically c-commands the other.

(ii) Second conjunct is not potential goal, since it is asymmetrically c-commanded by the first conjunct.

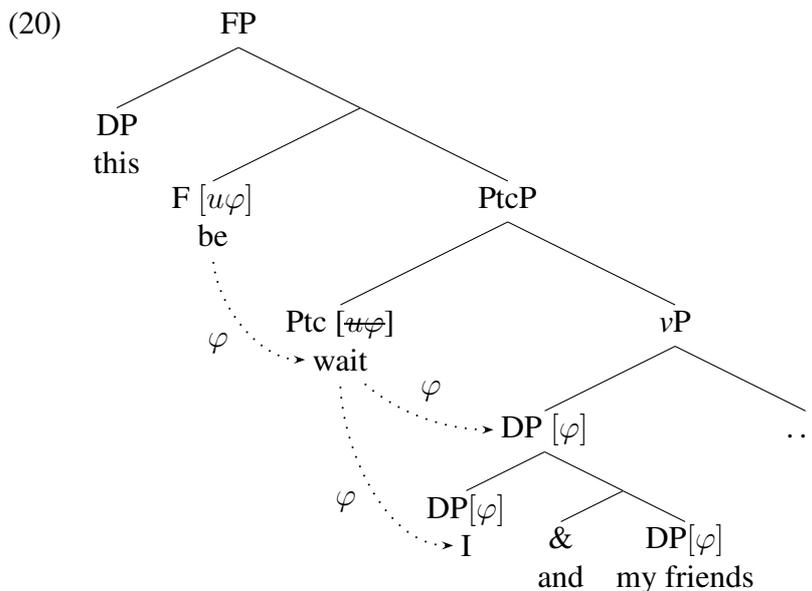Either FCA or full agreement is realized, depending on which DP T Agrees with.

If the subject must raise to Spec, FP, only full agreement is licit. Possible alternatives will violate some condition on movement:

(i) ✗ Agreement with first conjunct followed by movement of first conjunct alone will violate CSC.

(ii) ✗ Agreement with first conjunct followed by movement of full conjunction will violate requirement that agreement is with the moved-DP.

(iii) ✔ Agreement with full conjunction and movement of full conjunction does not violate either constraint.

9

(19)

FP
├─ DP
└─ F [uφ] come.PST ... ; DP [φ]; ...
   └─ DP[φ] I ; & and ; DP[φ] our drummer
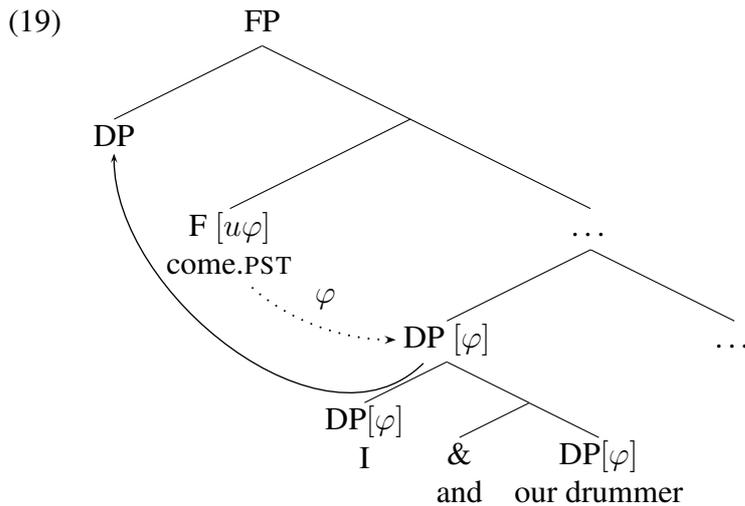
Reasoning in clauses with both auxiliaries and participles.

Note that Ptc Agress before F. If subject does not raise to Spec, PtcP, the most local node with φ features to F is Ptc. Therefore, F Agrees with Ptc, rather that the subject directly.

(20)

FP
├─ DP this
└─ F [uφ] be ; PtcP
   ├─ Ptc [u̶φ̶] wait
   └─ vP
      └─ DP [φ] ; ...
         └─ DP[φ] I ; & and ; DP[φ] my friends

This ensures that auxiliaries and participles match when subjects remain below Ptc (cf. Bhatt and Walkow (2013) on matching between auxiliaries and participles in Hindi-Urdu).

3.2 ANALYSIS 2: BIDIRECTIONAL AGREE

An alternative analysis leverages the idea that Agree may operation bidirectionally (Adger 2003, Baker 2008, Bjorkman and Zeijlstra 2014, Toosarvandani and van Urk 2014, Carstens 2015). In particular, Agree is defined as follows:[5]

(21) A functional head P (the "probe") Agrees with a node G (the "goal") iff:

   a. P has unvalued, uninterpretable φ features ($u\varphi$ features).

   b. G has valued, interpretable φ features.

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[5]Again, I do not assume the activity condition here. I again assume that Agree is case-discriminating in the sense of Preminger (2014).

    c. P c-commands G or G c-commands P.

    d. If P c-commands G, there is no node H such that P c-commands H, H asymmetrically c-commands G, and H has valued φ features.

    e. If G c-commands P, there is no node H such that H c-commands P, G asymmetrically c-commands H, and H has valued φ features.
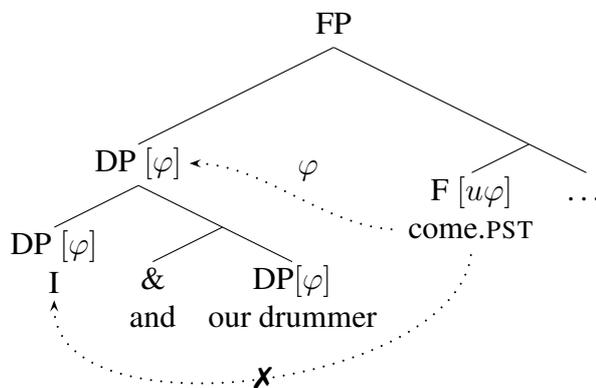
(22) Downward Agree
    a.
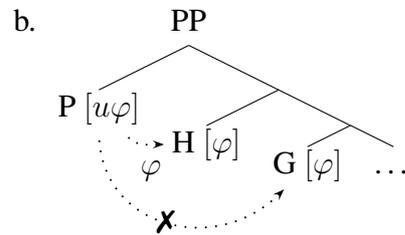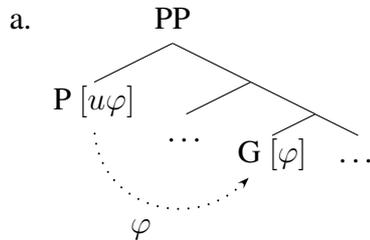
(23) Upward Agree
    a.
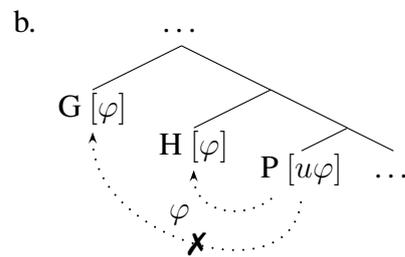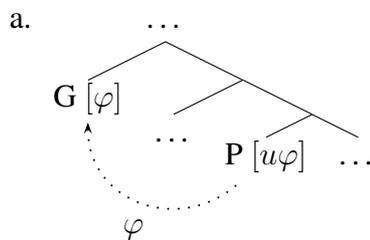
When subject remains below a probe, reasoning is the same as in §3.1. However, when subject is above a probe, probe now Agrees upward. Since only the full conjunction c-commands the probe, only full agreement is licit.

(24)

4 DECIDING BETWEEN ANALYSES 1 & 2

Both analyses capture the core facts of Finnish FCA that we have seen so far, as well as the core facts about FCA in other languages (Arabic, Biblical Hebrew, Dutch). However, additional empirical evidence from Finnish recommends Analysis 2.

4.1 PRE-VERBAL SUBJECTS ABOVE SPEC, FP

Analysis 1 is based upon the assumption that subjects preceding agreeing elements in linear order occupy the specifier position of a phrase with which the subject Agreed.

There are several cases in which subjects precede agreeing elements in linear order, but occupy a higher position in the clause structure that the specifier position of the phrase headed by the probe.

FCA and full agreement are possible when a subject follows a verb and the expletive *sitä* precedes the verb (van Koppen 2005).

(25) a. Sitä ol-**emme minä ja sinä** käy-**neet** Pariisi-ssa.
EXPL be-**1PL I and you** visit-**PTC.PL** Paris-INE
"You and I have visited Paris."

b. Sitä ol-**en minä ja sinä** käy-**neet** Pariisi-ssa.
EXPL be-**1SG I and you** visit-**PTC.PL** Paris-INE
"You and I have visited Paris."

The subject can be topicalized to a position that precedes *sitä* in linear order. In this case, only full agreement may be realized on the verb.

(26) a. **Minä ja sinä** sitä ol-**emme** käy-**neet** Pariisi-ssa.
I and you EXPL be-**1PL** visit-**PTC.PL** Paris-INE
"You and I are the ones who have visited to Paris."

b. * **Minä ja sinä** sitä ol-**en** käy-**neet** Pariisi-ssa.
I and you EXPL be-**1SG** visit-**PTC.PL** Paris-INE
"You and I are the ones who have visited to Paris."

I assume *sitä* occupies Spec, FP and the topicalized subjects in (26) occupy a higher position in the left periphery (Holmberg and Nikanne 2002).

On Analysis 1, nothing prevents F from Agreeing with the first conjunct and the entire conjunction moving to a higher position.

(27)
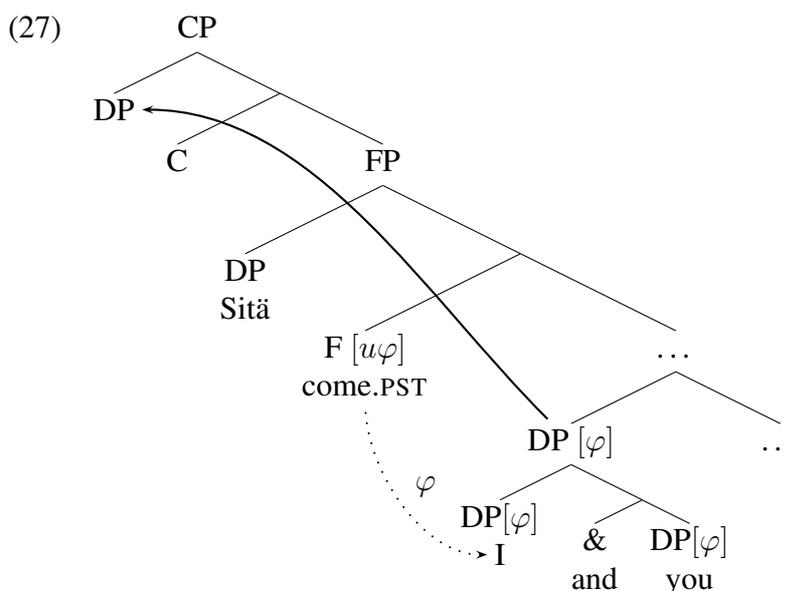
Analysis 2 does not suffer from this problem. If the subject occupies a position above Spec, FP, it is still only the full conjunction that c-commands F. Thus, F may only Agree with the full conjunction.

12

Similar arguments come from cases in which the subject appears pre-verbally and appears with either the question particle *ko/kö*. In these cases, Spec, FP may be occupied by another constituent, but full agreement is nonetheless obligatory.[6]

(28) a. **Sinä ja psykologi-ko** tämä-n kirja-n kirjo-**ititte**?
       You and psychologist-Q this-ACC book-ACC write-**PST.2PL**

       "Was it you and a psychologist who wrote this book?"

   b. * **Sinä ja psykologi-ko** tämä-n kirja-n kirjo-**itit**?
        You and psychologist-Q this-ACC book-ACC write-**PST.2SG**

        "Was it you and a psychologist who wrote this book?"

Again, on Analysis 1, there is nothing preventing the verb from Agreeing with the first conjunct, followed by movement of the full conjunction to a position above Spec, FP.

4.2 AGREE DOES NOT FEED MOVEMENT TO SPEC, FP

Analysis 1 also crucially relies on the assumption that movement to Spec, FP requires an Agree relation between F and the moved element. However, in Finnish, Spec, FP can be occupied by non-subject DPs, as well as locative and temporal adverbs (Holmberg and Nikanne 2002).

(29) a. Tämä-n kirja-n on kirjoitta-nut Graham Greene.
       This-ACC book-ACC be.3SG write-PTC.SG Graham Green

       "Graham Green has written this book."

   b. Tänään leikki-i lapsi-a kadu-lla.
      Today play-3SG child-PART.PL stree-ADE

      "Today children are playing in the street."

To explain these facts, we must relax the condition that movement to Spec, FP requires an Agree relation between the moved element and F. However, if we relax this assumption, we again predict the possibility of F Agreeing with the first conjunct, followed by movement of the full conjunction to Spec, FP.

Again, Analysis 2 does not suffer from this problem because it does not rely on any assumption connecting movement and agreement.

On the basis of the arguments presented in this section, we can conclude that Analysis 2 is superior in accounting for the Finnish FCA data.

5 CONCLUSION

(i) Colloquial Finnish demonstrates FCA that can be characterized as follows: Agreement-bearing elements must realize full agreement if they follow the subject in linear order. They optionally realize FCA if they follow the subject. If multiple agreement-bearing elements appear in the same clause, they must either both realize FCA or both realize full agreement, unless the subject intervenes between them.

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[6]We could assume that the examples in 28 to be derived by raising the verb to F and raising the object DP to Spec, FP. Alternatively, we could the approach to OV proposed in Holmberg (2000). In this case, the full VP *tämän kirjan kirjoititte* occupies Spec, FP. Regardless of our choice, the subject DP does not occupy Spec, FP in the syntactic derivation.

(ii) Analysis 1: Agree operates downward. Both first conjunct and full conjunction are accessible to a c-commanding probe. However, if subject must raise to specifier position, only full agreement is licit due to CSC and requirement that moved element Agrees.

(iii) Analysis 2: Agree operates upward and downward. Both first conjunct and full conjunction are accessible when probe c-commands goal. Only full conjunction is accessible when goal c-commands probe, since only full conjunction c-commands probe.

(iv) Empirical evidence from Finnish favors Analysis 2.

Proposals similar to Analysis 1 have been offered for Biblical Hebrew (Doron 2000), Dutch (van Koppen 2012), and Arabic (Crone 2015). However, if we wish to have a unified analysis of FCA in these languages, the Finnish data suggests we should pursue Analysis 2.

Note that on Analysis 2, Agree operates on the syntactic structure post-movement. Therefore, this proposal requires that Agree happen later than is usually assumed and precludes the possibility of agreement feeding movement (Chomsky 2000; 2001, Preminger 2014).

Preminger (2014) argues that Agree must feed movement on the basis of defective intervention effects. If Analysis 2 is correct, then we must adopt an alternative account of defective intervention (Bruening 2014).

APPENDIX: LATE OPERATIONS ANALYSES

Soltan (2007) and Larson (2013) offer similar analyses of FCA in Standard Arabic and non-standard spoken varieties of Arabic. The basic patterns of FCA in non-standard Arabic closely parallel those in Finnish summarized in Tables 1 & 2.

Late operations analyses are summarized as follows:

(i) Agree is assumed to operate downward and to occur as soon as possible, along the lines of the definition in (16).

(ii) FCA and full agreement result from agreement with different structures of the subject DP.

(iii) Some operation O converts a structure from one that triggers FCA to one that triggers full agreement.

(iv) O may occur "late," i.e. post-cyclically, in a syntactic derivation. If O occurs before Agree, full agreement is obligatory. If O occurs after Agree, FCA is obligatory.

I argue against these approaches on the following grounds:

(i) These approaches require additional theoretical assumptions about O.

(ii) Data suggest that the realization of FCA or full agreement depends on the position of the subject in the clause structure. In contrast, late operations approaches attribute these agreement patterns to different structures of the conjoined subject.

(iii) These approaches fail to easily account for mixed agreement. In mixed agreement cases, full agreement appears lower in the structure, which is incompatible with operation that converts a structure yielding FCA to one yielding full agreement.

Empirically, Soltan's and Larson's approaches fail on the Finnish data because they assume that O is a necessary condition for full agreement and that once O occurs, full agreement is obligatory. This predicts the impossibility of mixed agreement cases, such as (8), repeated below in (30).

(30) Aux$_{\text{FCA}}$ S Ptc$_{\text{PL}}$

    a. Tätä ol-**en** **minä ja** **ystävä-ni** odotta-**neet** jo kauan. (Google)
       This be-**1SG** **I** **and friends-POSS.1SG** wait-**PTC.PL** already long

       "My friends and I have already waited for this for a long time."

    b. Vahv-oja ja erittäin varma-ksi väit-etty-jä
       Strong-**PART.PL** and very certain-**TRANS** allege-**PTC-PART.PL**

       ennakkopäätö-ksiä ol-**et** **sinä ja** **Kristi R.** anta-**neet**.
       precedent-**PART.PL** be-**2SG** **you and Kristi R.** give-**PTC.PL**

       "You and Kristi R. have given strong and allegedly very certain precedents."

Since Agree operates downward and occurs early, the participle Agrees with the subject before the auxiliary. Since the participle realizes full agreement in these cases, O must have already occurred. But this predicts that the auxiliary must also realize full agreement, since full agreement is obligatory after O occurs. Therefore, late operations analyses are incompatible with the Finnish data.

Note that similar arguments can be made on the basis of Arabic data (Crone 2015).

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