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First conjunct complementiser agreement and the structure of coordination

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A recurring question in relation to first conjunct agreement concerns the underlying structure of the coordination: Is first conjunct agreement the result of agreement with the first conjunct of a nominal coordination, or is it the result of agreement with the subject of a clausal first conjunct, that undergoes ellipsis and movement to make it look like a nominal conjunct? In this paper, I argue that several instances of first conjunct complementiser agreement should be analysed as resulting from clausal coordination and Right Node Raising. I show that this approach accounts for the following observations. In Frisian, the complementiser can show first conjunct agreement, but the verb cannot. Also in Frisian, first conjunct complementiser agreement triggers a two-event reading of the sentence. In Polish, last conjunct agreement on the verb is possible only in the context of first conjunct agreement on the complementiser. These observations cannot be accounted for under approaches that assume only nominal coordination, or resolution of agreement at PF. I also discuss coordinator agreement in Tegelen Dutch, and show that it provides further support for the existence of clausal coordination as an underlying structure of a superficial coordination of nouns. The analysis means that first conjunct agreement can be the result of different underlying syntactic structures, that should be distinguished empirically and theoretically.

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1 Introduction

Many languages have first conjunct agreement (FCA): a verb that precedes a coordinated subject shows agreement with the first conjunct of that subject, rather than with the whole coordination. Some examples are given in (1) and (2). In (1), the verb shows singular masculine agreement, instead of plural agreement, and in (2), the verb shows first person singular agreement instead of plural agreement.

- (1) *Moroccan Arabic* (Aoun & Benmamoun & Sportiche 1994: 207)

Mša **ʕumar** w ʕali.
left.3SG.M Omar and Ali
'Omar and Ali left.'

- (2) *Finnish* (Crone 2016: 17)

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

One of the questions that have been raised in relation to FCA concerns the underlying structure of coordination: is FCA the result of agreement with one conjunct of a nominal coordination, or is it the result of a coordination of clauses that undergo conjunction reduction to give the appearance of a coordination of nouns? The nominal coordination approach is assumed by most current analyses of FCA (see e.g. van Koppen (2005); Bošković (2009); Bhatt & Walkow (2013); Larson (2013); Marušič & Nevins & Badecker (2015); Murphy & Puškar (2018), and many others, and Nevins & Weissler (2019) for a recent overview of theoretical approaches to closest conjunct agreement).

This paper argues that we need the clausal coordination analysis of FCA for several cases of first conjunct complementiser agreement (FCCA). An example with FCCA is given in (3); in this example, the complementiser shows 2SG agreement, i.e. it expresses the features of the first conjunct only.

- (3) *Frisian* (van Koppen 2006: 126)

dat-st **do** en Marie dit wykein yn Rome west ha.
that-2SG you and Marie this weekend in Rome been have.PL
'that you and Marie have been to Rome this weekend.'

I demonstrate that three special properties of FCCA in Frisian and Polish result from clausal coordination and the mechanisms involved in reducing the conjuncts, specifically ATB movement and Right Node Raising. In Frisian, there is a verb-complementiser asymmetry when it comes to

FCA: complementisers can agree with the first conjunct of a coordinated subject, but verbs cannot. I argue that this asymmetry is the result of requirements on ATB movement. Furthermore, in Frisian, FCCA has an effect on interpretation, which can be understood as an effect of coordination level. Finally, in Polish, there is a dependency of last conjunct agreement on the verb on first conjunct agreement on the complementiser, which I relate to agreement resolution in Right Node Raising structures. I show that these properties of FCCA in Frisian and Polish cannot be accounted for under the nominal coordination analysis of FCA, nor under approaches that argue that FCA obtains under linear adjacency. I also discuss coordination agreement in Tegelen Dutch (van Koppen & Cremers 2008), and show that this phenomenon provides further support for the idea that apparently nominal conjuncts can be underlyingly clausal.

The structure of the paper is as follows: in section 2, I discuss the nominal and clausal analyses of FCA in more detail. I show that the problems that have been raised for the clausal analysis of FCA do not apply to FCCA. I then discuss FCCA in Frisian (section 3) and Polish (section 4), and show how the properties of FCCA in these languages fall out if we adopt the clausal analysis of FCA combined with language-specific resolution rules under Right Node Raising. In section 5, I discuss an alternative analysis in terms of linearity and show that it does not work. Section 6 extends the analysis to coordinator agreement in Tegelen Dutch. Section 7 concludes with the implications for FCA and the syntax of coordination more generally.

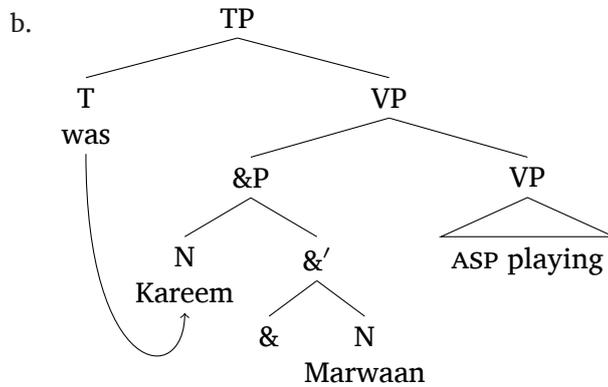
2 Two analyses of first conjunct agreement

In this section, I introduce the nominal and the clausal analysis of FCA as formulated to account for FCA on verbs. I show why the clausal analysis fell out of fashion, and that the arguments against it do not apply when the agreeing element is a complementiser.

According to the nominal coordination analysis of verbal FCA, agreement takes place between the verb and the first conjunct of a coordination of nouns (for recent work adopting this analysis, see Marušič & Nevins & Badecker (2015); Citko (2018); Murphy & Puškar (2018); Al Khalaf (2022)). The configuration is illustrated in (4). Example (4a) shows that the auxiliary shows singular agreement, i.e. agreement with the first conjunct only. The structure in (4b) shows the analysis using nominal coordination: *Kareem* and *Marwaan* are the conjuncts of a nominal coordination. The auxiliary agrees with the highest conjunct *Kareem*, resulting in singular agreement.

(4) *Lebanese Arabic* (Aoun & Benmamoun & Sportiche 1994: 208)

- a. Keen Kariim w Marwaan ?am yil?abo.
was.3SG.M Kareem and Marwaan ASP playing.PL
'Kareem and Marwaam were playing.'



There are several opinions on what the exact properties of the nominal coordination are (for example, is it a phrasal structure as in (4), as argued by e.g. Aoun & Benmamoun & Sportiche (1994); Johannessen (1996); van Koppen (2005); Marušič & Nevins & Badecker (2015), or an adjunction structure, see Munn (1993); Larson (2013)?). What is crucial for the current purposes is that the coordination consists of nominal conjuncts, and that there is agreement with the first conjunct.

According to the clausal analysis of FCA, the conjuncts of the coordination are not nouns, but full clauses (Aoun & Benmamoun & Sportiche 1994; 1999). The clauses undergo conjunction reduction to give the appearance of nominal coordination. To illustrate the analysis, consider again example (4a), repeated as (5). According to the clausal coordination analysis of FCA, the underlying structure of (5) is something like (6). Importantly, the conjuncts in (6) are full clauses.

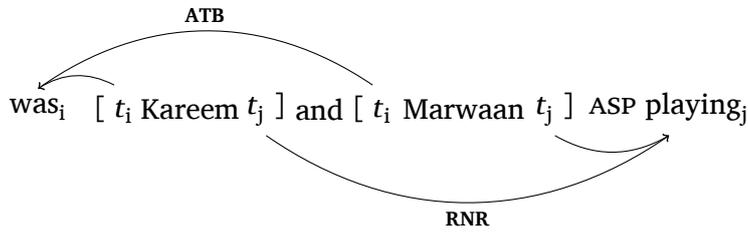
- (5) *Lebanese Arabic* (Aoun & Benmamoun & Sportiche 1994: 208)
 Keen Kariim w Marwaan ?am yil?abo.
 was.3SG.M Kareem and Marwaan ASP playing.PL
 ‘Kareem and Marwaam were playing.’

- (6) [was Kareem ASP playing] and [was Marwaan ASP playing].

In order to get from (6) to (5), the conjuncts undergo reduction. The agreeing auxiliary undergoes Across-the-Board (ATB) movement out of the conjuncts, and expresses singular agreement. The remaining material in the conjuncts, except for the subjects, undergoes Right Node Raising (RNR).¹

¹ I represent ATB movement and Right Node Raising as actual instances of movement from both extraction sites purely for expository purposes in this paper. There are a number of different approaches to ATB movement and RNR (see Hein & Murphy (2020) and Citko (2017) for recent overviews), many of which do not involve movement from both extraction sites. The claims in this paper are independent of the analysis of ATB movement and RNR.

(7)



The clausal analysis was introduced by Aoun & Benmamoun & Sportiche (1994) to account for the observation that in varieties of Arabic, FCA is not allowed when a sentence contains a ‘number sensitive’ item, such as a collective predicate. This is illustrated in (8); FCA is out when the sentence contains the collective predicate ‘meet’ (8a). Only resolved agreement is possible here (8b). Aoun & Benmamoun & Sportiche’s account is that a number sensitive item can only be used when the sentence contains a plural subject. A clausal coordination structure contains two clauses with singular subjects, and therefore number sensitive items cannot be used, resulting in the ungrammaticality of (8a). Instead, a coordination of nouns must be used (which behaves like a plural subject), and this gives rise to resolved agreement (8b).

(8) *Lebanese Arabic* (Aoun & Benmamoun & Sportiche 1994: 213)

- a. *Lta²a Kariim w Marwaan.
 met.3SG.M Kareem and Marwaan.
- b. Lta²o Kariim w Marwaan.
 met.PL Kareem and Marwaan.
 ‘Kareem and Marwaan met.’

The clausal analysis of verbal FCA has been criticised on several points. Munn (1999) provides a number of counterexamples to the observation that number sensitive items cannot be used in clauses with FCA, showing that these elements might not be a good diagnostic for coordination level (see however Aoun & Benmamoun & Sportiche (1999) for a critical evaluation of Munn’s examples). Moreover, Munn shows that the verb can show FCA even if the first conjunct binds a pronoun in the second conjunct, see (9).

(9) *Lebanese Arabic* (Munn 1999: 653)

- ṛəyit kəll mara w ṛəbna ṛəṣṣa
 read.3SG.F each woman and child.her story
 ‘Each woman and her child read a story.’

Since this binding relation between the conjuncts requires that the first conjunct c-commands the second conjunct, the only possible structure for (9) involves a coordination of nouns. In a coordination of clauses, the first conjunct cannot bind into the second conjunct, as illustrated for English in (10).

(10) *English* (Munn 1999: 653)

*Each woman_i read a story and her_i child read a story.

In conclusion, Munn (1999) shows us that nominal coordination has to be underlying to at least some examples of FCA. However, this does not mean that we should completely rule out the clausal analysis of FCA; clausal coordination may still be the correct analysis for sentences with FCA that do not involve, for example, binding between the first and second conjunct. Furthermore, the expectation is that an underlyingly clausal coordination receives a different interpretation than a nominal coordination because it contains two separate clauses. Specifically, a sentence with clausal coordination should be preferentially interpreted as distributive or expressing two events (cf. Nevins & Weisser 2019; Arsenijević et al. 2020).

A second point of critique comes from Citko (2004). Citko (2004) observes that the clausal analysis of FCA makes the prediction that FCA is excluded when the verbs in the conjuncts have different forms, because of the identity requirement on ATB movement: non-identical verbs cannot undergo ATB movement, ruling out FCA. However, this prediction is not correct. For instance, Citko shows that FCA is fine in example (11a) from Polish, even though the underlying clausal structure would contain verbs of a distinct form, as in (11b). The identity requirement on ATB movement makes it impossible that (11a) is derived from (11b). The clausal analysis of FCA is thus too restrictive to derive all cases of FCA on verbs.²

(11) *Polish* (Citko 2004: 94)

a. Do pokoju weszła Maria i Jan.
to room entered.F Maria and Jan.
'Into the room walked Maria and Jan.'

b. Do pokoju weszła Maria i do pokoju wszedł Jan.
to room entered.F Maria and to room entered.M Jan
'Maria walked into the room and Jan walked into the room.'

However, Citko's argument only applies to elements that have to undergo ATB movement in order to appear to the left of the coordination; when the agreeing element is external to the conjuncts, no ATB movement takes place, and clausal coordination should be a possible underlying structure for coordination.

In this paper, I argue that complementiser agreement with a coordinated subject provides such a context. An example with FCA on a complementiser is given in (12).

² It has been demonstrated that in some cases, non-identical verbs can undergo ATB movement (see e.g. An (2006); Salzmann (2012)), potentially weakening Citko (2004)'s argument; all relevant examples in the literature seem to involve auxiliary verbs, however, so it is not clear whether the same holds for ATB movement of lexical verbs as would be required in (11b).

- (12) *Frisian* (van Koppen 2006: 126)
 dat-st **do** en Marie dit wykein yn Rome west ha.
 that-2SG you and Marie this weekend in Rome been have.PL
 ‘that you and Marie have been to Rome this weekend.’

If the conjuncts are TPs and the complementiser is in C, the complementiser is external to the coordination of TPs and does not undergo ATB movement. This structure therefore never requires ATB movement of non-identical agreeing elements to derive FCA. The abstract structure is given in (13).

- (13) $[_{CP} C [_{\&P} TP_1 [_{\&} \& TP_2]]]$

In the remainder of this paper, I argue that some cases of FCCA have to be analysed as resulting from clausal coordination.³ I argue that this analysis accounts for an asymmetry between verbs and complementiser regarding FCA in Frisian, an interpretative effect of FCA in Frisian, as well as the dependency of verbal last conjunct agreement on FCCA in Polish.

3 First conjunct complementiser agreement in Frisian

The first language I consider is Frisian, a minority language spoken in the north-west of the Netherlands. Frisian allows for FCCA, as illustrated in (14) (throughout the paper, I focus on Frisian coordinations where the first conjunct is a 2SG pronoun, because complementiser agreement in Frisian is restricted to 2SG).

- (14) *Frisian* (van Koppen 2006: 126)
 dat-st **do** en Marie dit wykein yn Rome west ha.
 that-2SG you and Marie this weekend in Rome been have.PL
 ‘that you and Marie have been to Rome this weekend.’

In contrast to complementisers, verbs cannot agree with the first conjunct of a coordinated subject; only resolved verbal agreement is possible, see (15).

- (15) *Frisian* (van Koppen 2006: 128)
 a. ***Hast** **do** en Marie dit wykein yn Rome west?
 have.2SG you and Marie this weekend in Rome been
 b. Ha **do** en Marie dit wykein yn Rome west?
 have.PL you and Marie this weekend in Rome been
 ‘Have you and Marie been in Rome this weekend?’

³ I will not go into the debate on the nature of complementiser agreement, but I assume that it is triggered by Agree (Carstens 2003; van Koppen 2005; Haegeman & van Koppen 2012; van Alem 2023); for alternative proposals, see Ackema & Neeleman (2004); Zwart (2006); Fuß (2008; 2014); Weisser (2019).

The verb-complementiser (V-C) asymmetry regarding FCA is surprising under a nominal coordination analysis of FCA. Under any analysis of the clause structure of West Germanic asymmetric V2 languages, the verb in verb-subject word orders and the complementiser are in the same structural position (i.e. C) in (14) and (15), as this assumption accounts for the absence of V2 in clauses that are introduced by a complementiser in these languages; the verb cannot move to its high position in C when this position is filled by a complementiser (cf. den Besten 1989; Zwart 1997).⁴ We therefore cannot connect the difference between verbs and complementisers to a difference in structure; both the verb and the complementiser spell out C agreement. Furthermore, verbal agreement in verb-subject word orders and complementiser agreement show the same adjacency requirement to 2SG subjects in Frisian: if the verb or the complementiser are not adjacent to a 2SG subject, the structure becomes ungrammatical, as illustrated in (16) for verbs, and (17) for complementisers.

(16) *Frisian* (de Haan 2010: 226, 227)

- a. Miskien moatst do Pyt helpe.
perhaps have.2SG you Pyt help
'Perhaps you have to help Pyt.'
- b. *Miskien moatst sels do Pyt helpe.
perhaps have.2SG even you Pyt help

(17) *Frisian* (de Haan 2010: 226, 227)

- a. dat-st do Pyt helpe moatst.
that-2SG you Pyt help have.2SG
'that you have to help Pyt.'
- b. *dat-st sels do Pyt helpe moatst.
that-2SG even you Pyt help have.2SG

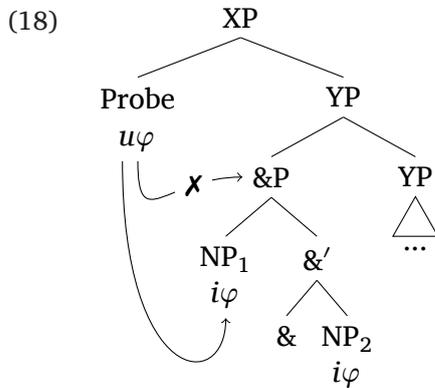
Given the parallel syntax and parallel behaviour of complementiser agreement and verbal agreement in the verb-subject word order in Frisian, there appears to be no straightforward reason why the complementiser can agree with the first conjunct of a coordinated subject, but the verb in the verb-subject word order cannot.⁵

⁴ A limited set of embedded clauses introduced by a complementiser allow for V2 in Frisian. However, de Haan (2001) gives a number of arguments that these embedded V2 clauses are embedded root clauses, and they are therefore not counterexamples to the complementary distribution of V2 and complementisers.

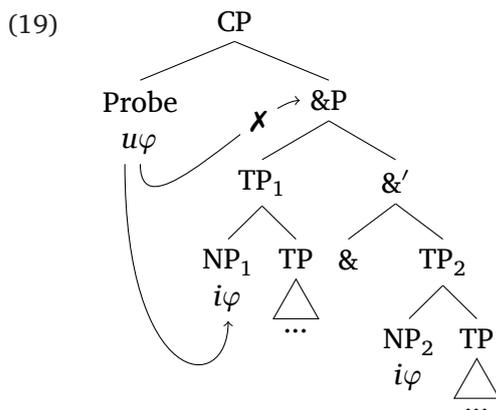
⁵ Though see van Koppen (2006) for a proposal to this effect; she argues that the verb obligatorily shows resolved agreement, because verbal agreement is determined in T, and T has to agree with the whole coordinated subject in order to assign nominative case to it. The verb subsequently moves to C, but spells out the features from T. However, some West Germanic languages (e.g. Bavarian, Fuß (2014)) do allow FCA on verbs in the verb-subject word order. If it is correct that T must agree with the whole coordination, then FCA on verbs must result from spelling out C's agreement features, which shows that this is a possibility. Since it is then not clear how to prevent the verb from spelling out the features from C in Frisian, I will not consider an analysis along those lines. Under the analysis presented in this paper, Bavarian can be treated in the same way as Polish, see section 4.

I argue that the V-C asymmetry regarding FCA in Frisian falls out naturally if we adopt the clausal coordination analysis of FCA, in addition to the nominal coordination analysis. Specifically, I argue that the example with FCCA in (13) involves clausal coordination, and that the absence of verbal FCA in (15) is the result of the coordination being obligatorily nominal, when the element preceding the coordinated subject is a verb.

Let me start by spelling out my assumptions regarding FCA. Following Bošković (2009); Bhatt & Walkow (2013), and others, I assume that the source of FCA is a φ -deficient coordination phrase (&P): the &P misses some or all φ -features. Instead of agreeing with the φ -deficient &P, the agreement Probe continues searching for a φ -complete Goal to Agree with. In case of a nominal coordination with a φ -deficient &P, the Probe will find the first conjunct and Agree with it (cf. van Koppen 2005; Bošković 2009). The structural configuration is given in (18).



When the coordination is clausal and has a φ -deficient &P, the first φ -complete Goal that the Probe finds is the subject of the first clausal conjunct. The Probe will therefore Agree with the subject of the first clause, as illustrated in (19).⁶



⁶ For simplicity's sake, I represent the subjects of the clausal conjuncts as NPs.

I assume that a clausal coordination &P is always φ -deficient, because a coordination of this type behaves like a TP, not like a nominal phrase, and a TP is not specified for φ -features. This means that a clausal coordination will always give rise to FCA. ϕ -deficiency of the nominal coordination &P is subject to parametric variation. In some languages (e.g. Frisian), a nominal &P is always φ -complete; in these languages, a nominal coordination gives rise to resolved agreement (agreement with the &P). In other languages (e.g. Polish), a nominal &P can be φ -deficient; in these languages, FCA with a nominal coordination is allowed. The full range of variables and outcomes is schematised in **Table 1**.

	ϕ -complete &P	ϕ -deficient &P
Nominal coordination	Resolved agreement	FCA
Clausal coordination	N/A	FCA

Table 1: Possible combinations of φ -completeness and coordination type.

With these assumptions in place, we can return to Frisian. Recall that I argue that some cases of coordination can be derived by either nominal coordination or clausal coordination, leading to different patterns of agreement. In Frisian, this plays out as follows. I propose that the ungrammaticality of FCA on verbs (cf. (15), repeated as (20)) indicates that the nominal coordination &P is φ -complete in Frisian.

(20) *Frisian* (van Koppen 2006: 128)

- a. ***Hast** **do** en Marie dit wykein yn Rome west?
 have.2SG you and Marie this weekend in Rome been
- b. Ha **do** en Marie dit wykein yn Rome west?
 have.PL you and Marie this weekend in Rome been
 ‘Have you and Marie been in Rome this weekend?’

As I showed in section 2, clausal coordination is not a possible derivation when the verb is the agreeing element that is realised to the left of the coordination, because this would require ATB movement of non-identical elements (Citko 2004). To illustrate the problem in Frisian, consider the structure corresponding to (20a) in (21). In this example, the verbs *hast* and *hat* have to undergo ATB movement (indicated with strike throughs) in order to derive the surface order, but this is excluded because these forms are not identical.

(21) *Hast [_{&P} [_{TP} ~~hast~~ do ___] and [_{TP} ~~hat~~ Marie ___]] dit wykein
 have.2SG have.2SG you and have.3SG Marie this weekend
 yn Rome west?
 in Rome been

What this means is that the only possible derivation of (20) involves nominal coordination. Because FCA is not allowed on verbs in Frisian, the nominal &P must be φ -complete (φ -com) and trigger resolved agreement. The corresponding structure is given in (22).

- (22) Ha [_{&P- φ -com} [_{NP} do] en [_{NP} Marie]] dit wykein yn Rome west?
 have.PL you and Marie this weekend in Rome been?

In contrast to verbs, complementisers can show FCA in Frisian, see (14), repeated as (23).

- (23) *Frisian* (van Koppen 2006: 126)
 dat-st do en Marie dit wykein yn Rome west ha.
 that-2SG you and Marie this weekend in Rome been have.PL
 ‘that you and Marie have been to Rome this weekend.’

Because the nominal &P in Frisian is φ -complete, FCCA cannot be the result of a structure that contains a nominal coordination. Instead, I propose that the underlying structure to FCCA in Frisian involves clausal coordination. The structure corresponding to (23) is given in (24).

- (24) dat-st [_{&P} [_{TP} do _] and [_{TP} Marie _]] dit wykein yn Rome west ha.
 that-2SG you and Marie this weekend in Rome been have.PL

In this structure, the agreeing complementiser is external to the conjuncts; therefore, this structure does not require ATB movement of non-identical elements. Furthermore, as I argued above, a clausal &P is inherently φ -deficient. The complementiser will therefore agree with the first φ -complete Goal inside the coordination, i.e. the subject of the first clausal conjunct. Finally, all material except for the subjects undergoes RNR from the conjuncts, giving the appearance of a coordination of nouns.⁷

What I have demonstrated so far is that adopting clausal coordination as being underlying to FCA in Frisian captures the V-C asymmetry regarding FCA: the only configuration in which FCA obtains is clausal coordination, but clausal coordination is restricted to cases where the complementiser is the agreeing element; because of the identity condition on ATB movement, there is no possible derivation involving clausal coordination where the verb is the agreeing element, resulting in the absence of FCA on verbs. Instead, agreeing verbs always involve nominal coordination, which trigger resolved agreement in Frisian.

Even though clausal coordination is a possible underlying derivation to sentences with a coordinated subject and an agreeing complementiser, it is not the only derivation; these sentences can also involve simple nominal coordination. Because the nominal &P is φ -complete in Frisian, the

⁷ Throughout the paper, the RNR gap is indicated with a line and the Right Node Raised material is in italics.

prediction is that FCCA is optional. As the examples in (25) demonstrate, this prediction is borne out; the complementiser can agree with the first conjunct, or do not show complementiser agreement at all. Because Frisian only has complementiser agreement for 2SG, the absence of complementiser agreement corresponds to resolved agreement. The underlying structure to (25a) is given in (26).

- (25) *Frisian* (van Alem 2020: 6)
- a. Ik tink dat do en Jan de wedstriden winne sille.
 I think that you and Jan the games win will.PL
 ‘I think that you and Jan will win the games.’
 One-event reading preferred: you and Jan are a team.
- b. I think dat-st do en Jan de wedstriden winne sille.
 I think that-2SG you and Jan the games win will.PL
 ‘I think that you and Jan will win the games.’
 Two-event reading preferred: you and Jan are each playing their own games.

- (26) dat [_{&P- ϕ -com} [_{NP} do] en [_{NP} Jan]] de wedstriden winnen sille.
 that you and Jan the games win will.PL

Because the examples in (25) correspond to different underlying structures according to my analysis, an additional prediction is that they should have different interpretations (e.g. Nevins & Weisser 2019): the structure involving clausal coordination (with FCCA) is predicted to correspond to a distributive or two-event reading. As indicated in (25), this prediction is borne out: a two-event reading is preferred for example (25b). The two-event reading of (25b) follows straightforwardly under the current analysis, according to which the derivation of (25b) involves coordination of two clauses. On the other hand, under an analysis that assumes both examples in (25) to have the same underlying structure, the interpretative effect is harder to account for. According to my analysis, (25a) involves a nominal coordination, which does not make predictions about interpretation. I propose that the preferred one-event reading for this clause is the result of Gricean reasoning: because the sentence with FCCA in (25b) only has a two-event reading, this sentence will be used whenever the two-event interpretation is intended; as a result, the sentence without FCCA will only be used when a one-event reading is intended.

The interpretative effect of FCCA is further illustrated in example (27). In (27) (provided by a reviewer), the context expresses a contrast between two groups: mum and dad, and you and Marie. In this context, it is very unlikely that you and Marie perform the described event separately. In this sentence, FCCA is ungrammatical. This is expected, because FCCA would trigger a two-event reading of the predicate ‘have been to Rome this weekend’.⁸

⁸ A reviewer suggests two further contexts to test the interpretative effect of FCCA. First, the reviewer asks if a coordination that consists of three conjuncts, e.g. *you and Jan and Paul*, is expected to have a three-event reading when it triggers FCCA. According to my analysis, the three-event reading should be a possible reading. However, when there

(27) *Frisian*

Ik wit net oft heit en mem dit wykein yn Parys west ha, mar wol
 I know not if dad and mum this weekend in Paris been have.PL but PTCL
dat do en Marie dit wykein yn Rome wiene.

that you and Marie this weekend in Rome were.PL

‘I don’t know if dad and mum have been in Paris this weekend, but I do know that you and Marie were in Rome this weekend.’

A question that I have not addressed so far concerns the resolution of verbal agreement in the context of FCCA. When the Frisian complementiser shows FCA, the verb is part of the material that undergoes RNR from the conjuncts (cf. (24)). It has been observed that languages vary in how agreement is resolved under RNR (Grosz 2015; Shen 2019): in some languages, the RNR’ed element shows agreement with the subject of both conjuncts (summative agreement), and in other languages, the element that has been Right Node Raised agrees with the subject of the last conjunct (distributive agreement). The options are illustrated in (28).

(28) *English* (Shen 2019: 15)

a. Summative agreement:

[Sue’s proud that **Bill** __] and [Mary’s glad that **John** __] **have** traveled to Cameroon.

b. Distributive agreement:

[Sue’s proud that **Bill** __] and [Mary’s glad that **John** __] **has** traveled to Cameroon.

In Frisian, the verb shows summative agreement when it undergoes RNR. This is illustrated in (29), where the presence of the second complementiser forces a derivation involving clausal coordination (sentence provided by a native speaker).

(29) *Frisian*

Ik tink [dat-st-o __] en [dat Jan __] de wedstriden winne **sille**
 I think that-2SG-you and that Jan the game win will.PL

‘I think that you and that Jan are going to win the game.’

are more than two conjuncts, there are multiple ways to parse the coordination. For example, *you*, *Jan*, and *Paul* each could be subjects of their own clausal conjuncts, but it is also possible that two members of the coordination (e.g. *Jan* and *Paul*) are part of a nominal coordination that is the subject of a clausal conjunct, with *you* being the subject of the other clausal conjunct. Each of these parses makes different predictions about interpretation, and I will leave testing of these predictions for future research.

Second, FCCA is predicted to be out with collective predicates like ‘meet’. Surprisingly, initial data show that this prediction is not borne out, consider (i). I currently do not have an explanation for this.

(i) *Frisian*

Ik hearde dat-st-o en Mark inoar troffen hawwe.

I heard that-2SG-you and Mark each.other met have

‘I heard that you and Mark met each other.’

Because the verb undergoes RNR in the structure with FCCA, the prediction is that the verb expresses summative or plural agreement when the complementiser expresses FCCA. As examples (14) and (25b) demonstrate, this prediction is correct. Because of the cross-linguistic variation in agreement resolution under RNR, an interesting consequence is that in a language with distributive agreement under RNR, an underlyingly clausal coordination should be identifiable through agreement on the verb. In the next section, I show that Polish is such a language.

4 First conjunct complementiser agreement in Polish

In Polish, the conditional complementiser shows obligatory agreement with the subject, illustrated in (30) (cf. Citko 2018).⁹

- (30) *Polish* (Migdalski 2006: 252)
 Chcę, że-by-ś przestał mi przeszkadzać.
 want.1SG that-COND-2SG stop.M.SG I.DAT disturb
 ‘I want you to stop disturbing me.’

Citko (2018) shows, based on corpus data, that when the subject is a coordination, there are three possible combinations of complementiser agreement and verbal agreement in Polish. The first option is that both the verb and the complementiser agree with the whole coordination (31a). In the second option, the complementiser agrees with the first conjunct (FCCA), but the verb agrees with the whole coordination (31b). The final option is that the complementiser agrees with the first conjunct, and the verb agrees with the last conjunct of the coordinated subject (31c); this is also referred to as ‘sandwiched’ agreement. The fourth logical possibility, in which the complementiser agrees with the whole coordination, but the verb agrees with the last conjunct, is ungrammatical.¹⁰ In other words, last conjunct agreement on the verb is dependent on first conjunct agreement on the complementiser.

- (31) *Polish* (Citko 2018: 3–5)
 a. Maria chce, żebyśmy ja i mój sąsiad wyszli.
 Maria wants that.COND.1PL I and my neighbor.M.SG left.VIR.PL
 ‘Maria wants me and my neighbor to leave.’

⁹ As Citko (2018) points out, it is likely that the conditional complementiser *żeby* consists of multiple elements, and that the agreeing element (-by) realises a head below C, but above T (e.g. Mod, cf. Migdalski (2006)). Because the exact locus of agreement is not relevant for the purposes of this paper (except that it is higher than TP), I will continue to refer to agreement on *żeby* as ‘complementiser agreement’ and represent it as C agreement.

¹⁰ A reviewer points out that this pattern is grammatical in similar contexts in varieties of Arabic, see Al Khalaf (2022) on agreement on auxiliaries and main verbs in Jordanian Arabic, and Akkuş (2021) on agreement on complementisers and verbs in Sason Arabic. I will return to this pattern at the end of this section.

- b. Maria chce, żebym ja i mój sąsiad wyszli.
 Maria wants that.COND.1SG I and my neighbor.M.SG left.VIR.PL
 ‘Maria wants me and my neighbor to leave.’
- c. Maria chce, żebym ja i mój sąsiad wyszedł.
 Maria wants that.COND.1SG I and my neighbor.M.SG left.M.SG
 ‘Maria wants me (F) and my neighbor to leave.’

The interaction between verbal agreement and complementiser agreement in Polish can be straightforwardly understood if we adopt the clausal coordination analysis in addition to nominal coordination. Let us focus first on the properties of nominal coordination. In contrast to Frisian, I argue that the Polish nominal &P can be φ -deficient. This means that a Probe can Agree with the first conjunct of a nominal coordination. The first piece of evidence for the φ -deficiency of the nominal &P has already been discussed in section 2: Polish allows for FCA on verbs (32), and this cannot be derived from clausal coordination, because movement of the verb out of the conjuncts would violate the identity requirement on ATB movement.

- (32) *Polish* (Citko 2004: 94)
 Do pokoju weszła Maria i Jan.
 to room entered.F Maria and Jan.
 ‘Into the room walked Maria and Jan.’

The second piece of evidence that the Polish nominal &P can be φ -deficient, and that agreement with the first conjunct of a nominal coordination is therefore possible, comes from Mendes & Ruda (2019). Mendes & Ruda show that FCA is possible on verbal fragment answers, such as polarity reversal responses (33).

- (33) *Polish* (Mendes & Ruda 2019: 1)
- a. A: Tam na plaży nie leżała Maria i Jan.
 there on beach not lay.F.SG Maria and Jan
 ‘Maria and Jan did not lay there on the beach.’
- b. B: Leżała
 lay.F.SG
 ‘Yes, they did.’

Mendes & Ruda show that when we assume that the underlying structure of (33b) contains clausal conjuncts, every possible derivation violates constraints on ellipsis or islands. The structure is given in (34a). When the verb stays in-situ (or conjunct internal), the part of the sentence that is elided inevitably crosses a constituent boundary, as the verb in the first conjunct is not deleted, but the head of the coordination (*and*) is; see (34b). When the verb of the first

conjunct moves out, as in (34c), the whole &P constituent can be deleted, but this movement violates the coordinate subject constraint. Because there is no possible clausal derivation for (33b), the underlying structure has to be nominal, e.g. as in (35). This implies that first conjunct agreement with a nominal coordination is possible in Polish.

(34) cf. Mendes & Ruda (2019)

- a. [_{&P} [_{TP} tam na plaży leżała Maria] [_& i [_{TP} tam na plaży leżał Jan]]]
 there on beach lay.F.SG Maria and there on beach lay.M.SG Jan
- b. [_{&P} [_{TP} tam na plaży leżała Maria] [_& i [_{TP} tam na plaży leżał Jan]]]
 there on beach lay.F.SG Maria and there on beach lay.M.SG Jan
- c. leżała [_{&P} [_{TP} tam na plaży t Maria] [_& i [_{TP} tam na plaży leżał Jan]]]
 lay.F.SG there on beach Maria and there on beach lay.M.SG Jan

(35) cf. Mendes & Ruda (2019)

- leżała [_{TP} tam na plaży t [_{&P} Maria i Jan]]
 lay.F.SG there on beach Maria i Jan

In conclusion, a nominal &P in Polish can be φ -deficient, in which case agreement will be with the first conjunct of the coordination. However, FCA is optional in Polish. For example, (36) shows that in addition to first conjunct agreement (36a), the verb can also express resolved agreement (36b). In order to derive resolved agreement in (36b), the nominal &P must be φ -complete. This means that (at least in Polish) φ -deficiency of the nominal &P is optional; a φ -deficient &P leads to FCA, while a φ -complete &P leads to resolved agreement (see also again **Table 1**).

(36) *Polish* (Citko 2004: 91,94)

- a. Do pokoju weszła Maria i Jan.
 to room entered.F Maria and Jan.
 ‘Into the room walked Maria and Jan.’
- b. Do pokoju weszli kobieta i chłopiec.
 to room entered.PL woman and boy
 ‘Into the room walked a woman and boy.’

With this background in place, we can return to the pattern of complementiser agreement and verbal agreement in Polish (cf. (31)). In sentences that contain a coordinated subject in the embedded clause, there are three different ways of determining agreement on the complementiser. When the subject of the embedded clause is a nominal coordination, there are two options. First, the nominal coordination can be φ -complete, as in Frisian. In this case, the complementiser shows resolved agreement. This is illustrated in (37).

- (37) Maria chce, żebyśmy [&P _{φ -com} [NP ja] i [NP mój sąsiad]] wyszli.
 Maria wants that.COND.1PL I and my neighbor.M.SG left.VIR.PL

The second option for a nominal coordinated subject is that the &P is φ -deficient (φ -def). In that case, the complementiser will agree with the first conjunct and express first conjunct agreement, as illustrated in (38).

- (38) Maria chce, **żebym** [&P _{φ -def} [NP ja] i [NP mój sąsiad]] wyszli.
 Maria wants that.COND.1SG I and my neighbor.M.SG left.VIR.PL

The third option is that the complementiser does not select a clause with a coordinated subject, but that it combines with a coordination of clauses directly. When all the material of the coordinated clauses, except for the subjects of the clausal conjuncts, undergoes RNR, the surface realisation of the sentence looks as if it contains a coordinated subject. A clausal &P is always φ -deficient. The complementiser will therefore agree with the first φ -complete Goal inside the &P, which is the subject of the first clausal conjunct. This structure is illustrated in (39).

- (39) Maria chce, **żebym** [&P [TP ja ___] i [TP mój sąsiad ___]] wyszedł.
 Maria wants that.COND.1SG I and my neighbor.M.SG left.M.SG

In short, when the complementiser expresses resolved agreement, the structure contains a φ -complete coordination of NPs. When the complementiser expresses FCA, the structure either contains a φ -deficient coordination of NPs, or a coordination of clauses. In Polish, these two structures can be disambiguated by looking at agreement on the verb.¹¹ Citko (2017) and Shen (2018) observe that Polish has distributive agreement under RNR, i.e. agreement with the last conjunct; this is illustrated in (40).

- (40) *Polish* (Citko 2017: 21)
 [Maria myśli, że ona ___], a [Jan myśli, że on ___] **był** *najlepszym*
 Maria thinks that she and Jan thinks that he was.M best
składniowcem na naszym wydziale.
 syntactician on our department
 ‘Maria thinks that she, and Jan thinks that he, was the best syntactician in our department.’

The expectation is therefore that in the structure with clausal conjuncts that are reduced through RNR, the verb shows distributive or last conjunct agreement, while the complementiser shows

¹¹ A potential additional way to disambiguate these structures is to look for a contrast in interpretation. In particular, the derivation with clausal coordination is predicted to correspond to a two-event reading. At this point, it is not clear whether this is the case; there appears to be idiosyncratic variation regarding which of the three variants are accepted by a single speaker of Polish, which complicates assessment of the interpretation of each of these variants. I therefore leave this for future research.

FCA. This is exactly what we observe in Polish: the verb of an embedded clause can show last conjunct agreement, but only if the complementiser expresses FCA. This is again illustrated in (41).

- (41) Maria chce, **żeby** [_{&P} [_{TP} **ja** __] i [_{TP} **mój sąsiad** __] **wyszedł**.
 Maria wants that.COND.1SG I and my neighbour.M.SG left.M.SG

Importantly, a sentence in which the complementiser shows resolved agreement, and the verb last conjunct agreement, cannot be derived. When the coordination is nominal, the complementiser can express resolved agreement, but the verb will too. When the coordination is clausal, the verb shows last conjunct agreement, but the complementiser will always agree with the subject of the first coordination because of the ϕ -deficiency of a clausal &P. These possible patterns are summarised in **Table 2**. In conclusion, the analysis based on nominal and clausal coordination derives the 3-out-of-4 pattern of Polish verbal and complementiser agreement.

	C agreement	V agreement
ϕ -complete nominal &P	Resolved agreement	Resolved agreement
ϕ -deficient nominal &P	FCA	Resolved agreement
Clausal &P	FCA	Last conjunct agreement

Table 2: Possible patterns of complementiser agreement and verbal agreement in Polish.

Citko (2018) provides an alternative analysis of the Polish verbal and complementiser agreement data. Citko assumes that the coordination is always nominal, and that the outcome of agreement is the result of two different types of Agree: Singular Agree and Multiple Agree. Without going into the details, Singular Agree leads to agreement with the closest conjunct, and Multiple Agree leads to resolved agreement. The two variants of Agree are in (essentially) free variation. When both the complementiser and the verb undergo Multiple Agree, they both express resolved agreement. When the verb undergoes Multiple Agree, but the complementiser undergoes Singular Agree, the verb expresses resolved agreement and the complementiser FCA. When both the verb and the complementiser undergo Singular Agree, they both express closest conjunct agreement. However, the fourth logical combination, in which the complementiser undergoes Multiple Agree, and the verb undergoes Singular Agree, leads to the pattern that is not attested in Polish: resolved agreement on the complementiser but last conjunct agreement on the verb. Citko provides some speculation on why this combination is excluded: she suggests that Singular Agree is less economical than Multiple Agree, and that principles of economy exclude a more economical operation on a higher Probe to follow a less economical operation on a lower Probe. This is not satisfactory. For example, if this economy requirement were true, we would need to rethink why a language like German allows C to trigger *wh*-movement

(arguably not economical) when T does not trigger movement at all (arguably economical). In contrast, the analysis proposed in this paper only makes use of independently motivated properties of agreement, coordination, and Right Node Raising. Furthermore, as mentioned in footnote 10, there are languages in which resolved agreement on a higher agreeing element and closest conjunct agreement on a lower agreeing element do cooccur, such as Sason Arabic (Akkuş 2021) and Jordanian Arabic (Al Khalaf 2022). Al Khalaf provides an analysis of the Jordanian Arabic data by adopting and modifying Citko's (2018) approach to closest conjunct agreement. Crucially for our purposes, Al Khalaf's analysis does not require a ban on Multiple Agree on the higher agreeing element, and Singular Agree on the lower agreeing element. Since Jordanian Arabic provides empirical evidence against stipulating such a ban, there is no reason to think that it would apply in Polish. We can conclude that Citko's analysis may be underlying to closest conjunct agreement in some languages (such as Jordanian Arabic), but that it is not the right analysis for Polish, because it overgenerates.

5 Alternative approach: linearity

An increasingly popular approach to closest conjunct agreement is that it is the result of feature copying at PF, based on linear order. In this section, I discuss this alternative approach, and show that it cannot account for the Frisian and Polish data.

The linearity approach to closest conjunct agreement is argued for by Benmamoun & Bhatia & Polinsky (2009); Bhatt & Walkow (2013); Marušič & Nevins & Badecker (2015); Marušič & Nevins (2020). The idea is as follows: Agree is a two-step process. The first step of Agree, Agree-Link in Arregi & Nevins (2012)'s terminology, identifies the target of Agree. This step takes place in syntax, and is restricted by the usual conditions on Agree (e.g. c-command). The second step of Agree is feature copying or valuation: Agree-Copy. Importantly, Agree-Copy can take place at different times with respect to operations in syntax and at PF. If Agree-Copy happens in syntax, it copies the features of the whole coordination, resulting in resolved agreement (cf. Bhatt & Walkow 2013). If Agree-Copy happens in PF after linearisation, it will copy the features of the linearly closest element to the agreement target. This will be spelled out as closest conjunct agreement. The crucial aspect of this proposal is that it places closest conjunct agreement at PF.

The Frisian and Polish data are problematic for this approach to FCA. Starting with Frisian, we have seen that FCCA is optional, and, importantly, has an effect on interpretation. The interpretative effect of FCCA clearly shows that it cannot be located at PF, as whatever happens at PF is independent of semantic interpretation. Instead, FCCA in Frisian must be syntactic, because its effects are visible both in semantics and at PF.

The linearity approach to FCA also cannot account for the interaction between FCCA and verbal last conjunct agreement in Polish. As shown in the previous section, both the complementiser and the verb can agree with the closest conjunct in Polish, but there is a

gap: the verb cannot show last conjunct agreement if the complementiser expresses resolved agreement. This gap is hard to account for if closest conjunct agreement is located at PF; there is no clear reason why closest conjunct agreement on the verb is blocked in the context of resolved agreement on the complementiser. In fact, the reverse is allowed: the complementiser can show FCA when the verb shows resolved agreement. Apart from stipulating it, the linearity analysis does not have much to say about this restriction. On the other hand, the previous section showed that it falls out straightforwardly by adopting clausal coordination as the underlying structure of the sentence.

In short, while some cases of closest conjunct agreement might be based on linearity, it is clear that FCCA in Frisian and Polish are not, and that the approach based on two-step Agree does not work for these varieties. The Frisian and Polish facts can be accounted for when we assume that both nominal and clausal coordination are possible derivations of FCCA.

6 Extension: coordinator agreement in Tegelen Dutch

Further support for the necessity of clausal coordination to derive conjunct agreement comes from Tegelen Dutch, a Limburgian dialect spoken in the south-east of the Netherlands. Van Koppen & Cremers (2008) show that in Tegelen Dutch, the coordinator can show conjunct agreement, illustrated in (42). Coordinator agreement is always with the second conjunct.

- (42) *Tegelen Dutch* (van Koppen & Cremers 2008: 1068)
 Hè dink det Marie en-s **toow** idder apart langskomme.
 he thinks that Marie and-2SG you each separate by.come.PL
 ‘He thinks that Marie and you each come by separately.’

Van Koppen & Cremers (2008) observe that coordinator agreement is only allowed when the coordination is embedded, i.e. (43) is ungrammatical.

- (43) *Tegelen Dutch* (van Koppen & Cremers 2008: 1068)
 *Marie of-s **toow** mōs d’n ierste sien.
 Marie or-2SG you must the first be
 ‘Marie or you must be the first.’

Furthermore, Tegelen Dutch also has complementiser agreement with 2SG subjects, as (44) illustrates. Like complementiser agreement, coordinator agreement is restricted to 2SG.

- (44) *Tegelen Dutch* (van Koppen 2005: 40)
 Ich dink de-s **doow** morge kums.
 I think that-2SG you tomorrow come.2SG
 ‘I think that you will come tomorrow.’

Based on these properties, van Koppen & Cremers propose that coordinator agreement is actually complementiser agreement with an elided complementiser. This means that the conjuncts contain a complementiser, and that they therefore must be clausal. The underlying structure of (42), repeated as (45a), is then as in (45b).

- (45) cf. van Koppen & Cremers (2008: 1068,1073)
- a. Hè dink det Marie en-s **toow** idder apart langskomme.
 he thinks that Marie and-2SG you each separate by.come.PL
 ‘He thinks that Marie and you each come by separately.’
- b. [_{&P} [_{CP} det Marie idder apart langskomme] en [_{CP} de-s **toow** idder
 that Marie each separately by.come en that-2SG you each
 apart langskomme]]
 separate by.come

In order to derive the surface sentence in (45a), the following happens in (45b). First, the complementiser undergoes deletion and strands the agreement morpheme, which subsequently attaches to the closest available host, i.e. the coordinator. This results in coordinator agreement. Second, all other material in each of the conjuncts, except for the subjects, undergoes Right Node Raising to the right of the sentence. The complete derivational structure is given in (46), where the strikethrough indicates deletion of the complementiser.¹² Note that this structure is very similar to the clausal coordination structures that I argued to be underlying to FCCA in Frisian (see (24)) and Polish (see (40)) in the sections 3 and 4.

- (46) cf. van Koppen & Cremers (2008: 1073)
- [_{&P} [_{CP} det Marie ~~___~~] en [_{CP} ~~de-s~~ **toow** ~~___~~]] *idder apart langskomme.*
 that Marie and that-2SG you each separate by.come

This analysis of coordinator agreement makes a number of predictions, that are similar to the predictions of the clausal analysis of FCCA. The first prediction is that coordinator agreement is optional, because next to the clausal derivation in (46), sentences like (42) can have an underlying structure with a nominal coordination, as represented in (47). In a nominal coordination, coordinator agreement should not be possible, since the head of the coordination is not a Probe. This prediction is correct: van Koppen & Cremers (2008) point out that coordinator agreement is not obligatory.

¹² A reviewer notes that the underlying structure of (45a) in (46) is ungrammatical, because *idder* ‘each’ requires a plural subject, and wonders if this is problematic for the analysis. In the literature on RNR, there are numerous examples that show that RNR can fix exactly this type of ungrammaticality. For example, Chaves (2014: 854) gives the example in (ia). In the structure without RNR, this sentence is ungrammatical (ib), but with RNR the sentence is fine. If (45a) involves RNR, it is therefore expected that elements like *idder* should be licensed.

- (i) a. Tom shouted ___ and Mary cried ___ *each other’s names*.
 b. *Tom shouted each other’s names and Mary cried each other’s names.

- (47) cf. van Koppen & Cremers (2008: 1068)
 det [_{&P} [_{NP} Marie] en [_{NP} toow]] idder apart langskomme.
 that Marie en you each separate by.come.PL

Related to the optionality of coordinator agreement, the clausal coordination analysis predicts that coordinator agreement can be used in sentences with a two-event reading, but that it is dispreferred in sentences with a one-event reading. The reason is that coordinator agreement involves a derivation with two separate clauses, which is not compatible with a one-event reading. This prediction is also correct. We have seen that coordinator agreement is grammatical in (42), repeated here as (48a), where the predicate ‘come by separately’ forces a two-event reading. However, coordinator agreement cannot be used in (48b), where the predicate ‘form a committee together’ is only compatible with a one-event reading. Under the approach advanced here, this means that (48b) cannot be derived from a clausal coordination, only from a nominal coordination, similar to (47).

- (48) *Tegelen Dutch* (van Koppen & Cremers 2008: 1068)
 a. Hè dink det Marie en-s **toow** idder apart langskomme.
 he thinks that Marie en-2SG you each separate by.come.PL
 ‘He thinks that Marie and you each come by separately.’
 b. Hè dink det Marie *en-s / en **toow** samen de kmissie vorme.
 he thinks that Marie en-2SG / en you together the committee form.PL
 ‘He thinks that Marie and you form the committee together.’

If coordinator agreement is the result of agreement between a complementiser and the subject of the underlyingly clausal second conjunct, we expect that also the subject of an underlyingly clausal first conjunct can be agreed with by a complementiser. This would result in FCCA. Indeed, Tegelen Dutch has FCCA, as illustrated in (49).

- (49) *Tegelen Dutch* (van Koppen 2007a: 335)
 Ich dink de-s doow en Marie zulle winnen.
 I think that-2SG you and Marie will.PL win
 ‘I think that you and Marie will win.’

The question is how we can tell that (49) involves clausal coordination, rather than a simple nominal coordinated subject. The first indication is that like Frisian, Tegelen Dutch does not allow for FCA on verbs, as (50) illustrates.

- (50) *Tegelen Dutch* (van Koppen 2006: 128)
 *Ontmoet-s / ontmoet-e doow en Marie uch voor de kerk?
 meet-2SG / meet-PL you and Marie each.other for the church
 ‘Did you and Marie meet before the church?’

The absence of FCA on verbs suggests that the Tegelen Dutch nominal &P is φ -complete. That means that agreement with the first conjunct of a nominal coordination is excluded. The only way to derive FCCA the involves a clausal coordination, as represented in (51).¹³

- (51) Ich dink de-s [_{&P} [_{TP} doow ___] en [_{TP} Marie ___]] zulle winnen
 I think that-2SG you and Marie will.PL win

As an anonymous reviewer points out, the idea that clausal coordination is underlying to FCCA in Tegelen Dutch makes another correct prediction, i.e. that extraction of a coordinated subject from an embedded clause bleeds FCCA (van Koppen 2007a). This is illustrated in (52). Example (52a) shows that FCCA is possible when the coordinated subject is in its base position in the embedded clause. Examples (52b,c) show that FCCA is blocked when the coordinated subject is extracted to the matrix clause; only the version without FCCA is grammatical.

- (52) *Tegelen Dutch* (van Koppen 2007a: 335,339)
- a. Ich dink de-s doow en Marie zulle winnen.
 I think that-2SG you and Marie will.PL win
 ‘I think that you and Marie will win.’
- b. *[Doow en Marie]_i dink ich de-s t_i het spel zulle winnen.
 You and Marie think I that-2SG the game will.PL win
- c. ?[Doow en Marie]_i dink ich det t_i het spel zulle winnen.
 You and Marie think I that the game will.PL win
 ‘You and Marie I think will win the game.’

This pattern follows straightforwardly if FCCA requires that the coordination is underlyingly clausal, see again (51). In the clausal coordination structure, the two subject NPs do not form a constituent, because they are subjects of separate clauses. For this reason, extraction of the subject NPs is impossible. When the two subject NPs are conjuncts of a nominal coordination, they can be extracted, but a nominal coordination does not trigger FCCA because of the φ -completeness of the nominal &P in Tegelen Dutch. As a result, there is no structure that can derive example (52b).

¹³ Another prediction of this proposal is that FCCA should be optional in Tegelen Dutch. van Koppen (2007b) shows that FCCA is optional in Tegelen Dutch, but only when something intervenes between the complementiser and the coordinated subject, as illustrated in (i). I currently do not have an explanation for why FCCA is obligatory when the complementiser and the 2SG conjunct are adjacent.

(i) *Tegelen Dutch* (van Koppen 2007b: 135)
 det / ?de-s auch doow en Anna komme.
 that / that-2SG also you and Anna come.PL
 ‘... that you and Anna will also be coming.’

As the examples so far demonstrate, in sentences with coordinator agreement or FCCA in Tegelen Dutch, the verb is plural. According to the clausal coordination analysis, the verb undergoes RNR in the examples with coordinator agreement, so verbal agreement is resolved through the principles of agreement resolution under RNR specific to Tegelen Dutch. It seems to be the case that Tegelen Dutch does allow for plural (i.e. summative) agreement on a verb that has undergone RNR, but also singular (distributive) agreement, as illustrated in (53).¹⁴ However, the verb in sentences with coordinator agreement (and FCCA) has to be plural. At this point, it is not entirely clear why plural agreement is obligatory in this context, but I suggest the following. In Standard Dutch, agreement on a verb that has undergone RNR is resolved as distributive (singular) agreement (see Kluck (2009)). It is possible that singular agreement in Tegelen Dutch is a case of interference from Standard Dutch, and that the grammar of Tegelen Dutch resolves agreement on verbs that have RNR'ed as plural agreement (for an extensive discussion and examples of the effect of Dutch on a minority language in the Netherlands (Frisian), see Bergstra (2020)). Complementiser agreement and coordinator agreement are excluded in Standard Dutch. Potentially, a sentence with FCCA or coordinator agreement is so unambiguously a sentence using the grammar of Tegelen Dutch that interference of Standard Dutch in agreement resolution under RNR is blocked. The only possible way to resolve verbal agreement is then plural agreement.

(53) *Tegelen Dutch* (Crit Cremers, p.c.)

- a. ?Merel dôch [det Peter __] en [det Stef __] *un gool hebbe gemak.*
 Merel thought that Peter and that Stef a goal have.PL made
 'Merel thought that Peter and that Stef have scored a goal.'
- b. ?Merel dôch [det Peter __] en [det Stef __] *un gool hêt gemak.*
 Merel thought that Peter and that Stef a goal have.SG made
 'Merel thought that Peter and that Stef has scored a goal.'

This section demonstrated that the clausal analysis of first conjunct complementiser agreement finds extra support in the analysis of coordinator agreement in Tegelen Dutch by van Koppen & Cremers (2008). Van Koppen & Cremers propose that coordinator agreement also results from a coordination that is underlyingly clausal. I showed that the predictions of the clausal analysis of FCCA carry over to coordinator agreement. In summary, in addition to FCCA, clausal coordination can result in coordinator agreement.

¹⁴ When the remaining material inside the conjuncts is larger than just a subject, singular agreement on the RNR'ed verb even seems to be obligatory:

(i) *Tegelen Dutch* (Crit Cremers, p.c.)

- [Laura is sjtols det Peter __], en [Esther is blie dat Stef __] *un gool hêt gemak*
 Laura is proud that Peter and Esther is happy that Stef a goal have.SG made
 'Laura is proud that Peter, and Esther is happy that Stef, has scored a goal.'

7 Conclusion and implications

This paper argued that some cases of first conjunct complementiser agreement (FCCA) should be analysed as resulting from an underlyingly clausal coordination, where all material apart from the subject undergoes Right Node Raising. Adopting this approach to FCCA allows for an understanding of the following properties of FCCA: the verb-complementiser asymmetry in whether first conjunct agreement is allowed in Frisian; the interpretative effect of FCCA in Frisian; the interaction between FCCA and last conjunct agreement on the verb in Polish. Independent support for the clausal analysis of coordination comes from Tegelen Dutch, where the coordinator can agree with the second conjunct. Following van Koppen & Cremers (2008)'s analysis of coordinator agreement as resulting from clausal coordination, I showed that coordinator agreement has similar properties as FCCA. Alternative analyses of closest conjunct agreement, viz. syntactic agreement with a nominal coordination, or agreement resolution after linearisation, were demonstrated not to be suitable to account for all the data.

The conclusion that we need clausal coordination, next to nominal coordination, to account for several instances of first conjunct agreement (FCA) has implications for our empirical and theoretical understanding of closest conjunct agreement. This paper argued that there is more than one way to derive FCA. FCA can be the result of agreement with the first conjunct of a nominal coordination, in which case we are dealing with 'real' first conjunct agreement; or it can be the result of agreement with the subject of a clausal conjunct, and in that case, FCA is only apparent. This distinction is relevant when we want to investigate, for instance, which factors determine if a language allows an agreement target to agree with the first conjunct of a nominal coordination. I argued that in Frisian (and Tegelen Dutch), this configuration is not possible, even though superficially it looks like it is. We thus need to consider what the underlying structure of a coordination is, to make sure we only include languages where FCA with a nominal coordination is allowed.

A theoretical consequence of the analysis is that we have a counterexample to proposed economy constraints on coordination, such as Heycock & Zamparelli (2005)'s *Economy of Coordinate Structure*. This constraint says that identical structure in a coordination should be avoided. In other words, when a coordination (say, of nouns) can be parsed as either a coordination of nouns, or as a larger coordination where everything except for those nouns undergoes deletion or movement, then the coordination of nouns should be preferred. However, this paper shows that a clausal parse of superficial N&N coordination is possible, at least when this parse can be morphosyntactically differentiated from the nominal coordination parse (by FCCA or last conjunct agreement on the verb).

Abbreviations

1 = first person, 2 = second person, 3 = third person, ASP = aspect, COND = conditional, DAT = dative, F = feminine, M = masculine, PL = plural, SG = singular, PART = partitive, PTCL = particle, VIR = virile, ATB = Across-the-Board, FCA = first conjunct agreement, FCCA = first conjunct complementiser agreement, RNR = Right Node Raising

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Competing interests

The author has no competing interests to declare.

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