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Life of Phi: Phi-features in West Germanic and the syntax-morphology interface

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at PF. The core data in this debate concern cases where the complementiser and the subject are separated by an intervening element, such as a focus particle. In some varieties, intervention of this kind leads to the absence of CA, illustrated in (2) with an example from Hellendoorn Dutch; (2a) shows CA, but when an intervening focus particle separates the complementiser from the subject, CA is ungrammatical (2b).

- (2) a. darr-e wiej den besten bint.
 that-1PL we the best are
 ‘that we are the best.’
 b. dat/*darr-e zölfs wiej de westrijd wint.
 that/that-1PL even we the game win.
 ‘that even we win the game.’

Hellendoorn Dutch (van Koppen, 2005, pp. 127, 143)

In this chapter, I contribute to the debate on the nature and analysis of CA by looking at novel and understudied data from Frisian and Limburgian. In these varieties, intervention between the complementiser and the subject leads to different intervention effects. In Frisian, intervention causes ungrammaticality, and in Limburgian, intervention causes the CA morpheme to be realised on the intervener, instead of on the complementiser. I argue that these data require a different analysis of CA than the existing accounts. More specifically, I argue that the CA morpheme is a clitic that doubles the subject, and this forms the basis for a novel analysis that accounts for the intervention effects on CA in Frisian and Limburgian.

The goal of this chapter is two-fold. First, it introduces new empirical data and presents a new analysis of complementiser agreement. This not only has implications for how we look at CA and clitic doubling, but also for other phenomena, such as *pro*-drop. Second, this chapter functions as a case study into the syntax of the elements that inherently bear ϕ -features, i.e., pronouns and clitics, and the relation between syntactic structure and morphology.

The organisation of the chapter is as follows. In section 3.2, I introduce the data on CA and intervention effects in Frisian and Limburgian. I illustrate how these data are different from other varieties, and I show that previous analysis of CA fail to capture the Frisian and Limburgian intervention effects. In section 3.3, I argue that the CA morpheme is a clitic, based on a detailed study of the properties of the CA morpheme. I also discuss (and dismiss) counterarguments against the clitic analysis, and the implications for verbal agreement. Section 3.4 presents the analysis of CA as clitic doubling in Frisian and Limburgian, starting with introducing the general approach to clitic doubling by van Craenenbroeck and van Koppen (2008), and the identification of the structural size of the CA morpheme. The derivation of the intervention effects is presented in section 3.4.3. The remainder of the chapter looks at other configurations for complementiser agreement. In section 3.5.1, I look at first conjunct complementiser agreement in Frisian, and I argue that it comes about as a result of clausal coordination and conjunct reduction. In section 3.5.2, I discuss CA in subject relatives and with extracted subjects, and show that the clitic analysis gives us a straightforward understanding of these phenomena. Section 3.6 concludes.

3.2 Intervention effects on complementiser agreement

In this section, I discuss the data on intervention effects on complementiser agreement in various West Germanic languages. The first two subsections introduce the core data of this chapter from Frisian and Limburgian. These varieties show intervention effects that have not been taken into account by existing analyses of CA, or that have not been observed before. In section 3.2.3, I briefly discuss intervention effects on CA in other varieties to demonstrate the relevance of the Frisian and Limburgian data. Section 3.2.4 discusses previous analyses of CA, and demonstrates why the Frisian and Limburgian data are problematic for them.

3.2.1 Frisian

Frisian has CA for 2SG (3).^{1,2} In a context where the complementiser and the subject are adjacent (and the embedded clause is not a V2 clause, cf. below), CA is obligatory, as illustrated in (4).

- (3) dat-st-o [...] fegetarysk ytst.
that-2SG-you vegetarian eat.2SG
'that you eat vegetarian.'
- (4) a. Ik hoopje dat-st-o ek komst.
I hope that-2SG-you also come.2SG
'I hope that you will come.'
- b. *Ik hoopje dat do ek komst.
I hope that you also come.2SG
'I hope that you will come.' (van der Meer, 1991, pp. 67, 69)

When a focus particle intervenes between the complementiser and the subject, the structure becomes ungrammatical. This is the case when CA is present (5a,c), and when CA is absent (5b,d) (see also de Haan, 2010 for the same observation).

- (5) a. *dat-st sels do de maraton rinne kinst.
that-2SG even you the marathon walk can.2SG
'that even you can run the marathon.'
- b. *dat sels do de maraton rinne kinst.
that even you the marathon walk can.2SG
'that even you can run the marathon' (E. Hoekstra, 2020c)
- c. *dat-st ek do [...] fegetarysk ytst.
that-2SG also you vegetarian eat.2SG
'that you, too, eat vegetarian.'

¹The full 2SG pronoun in Frisian is *do*, but in CA contexts, CA and the pronoun are realised as *sto*. In the presentation of the examples, I gloss *st* as the CA morpheme, and *o* as the pronoun. I assume with de Haan (2010) that the underlying sequence is *st-do*, which undergoes progressive assimilation and degemination, resulting in *sto*.

²The Frisian data without a source come from elicitation with one native speaker of Frisian, to confirm the judgements for similar sentences from the literature.

- d. *dat ek do [...] fegetarysk ytst.
 that also you vegetarian eat.2SG
 ‘that you, too, eat vegetarian.’

Intervention of a focus particle as well as a whole constituent, such as a fronted object or a high adverb, also leads to ungrammaticality, both in the absence and presence of CA (6).

- (6) a. *dat-st dizze film sels do noch net sjoen hast.
 that-2SG this movie even you yet not seen has.2SG
 ‘that even you haven’t seen this movie yet.’
 b. *dat dizze film sels do noch net sjoen hast.
 that this movie even you yet not seen has.2SG
 ‘that even you haven’t seen this movie yet.’
 c. *dat-st helaas ek do gjin priis wûn hast.
 that-2SG unfortunately also you no prize won have.2SG
 ‘that you unfortunately also didn’t win a prize.’
 d. *dat helaas ek do gjin priis wûn hast.
 that unfortunately also you no prize won have.2SG
 ‘that you unfortunately also didn’t win a prize.’

Finally, intervention of an intervener that does not contain a focus particle also leads to an ungrammatical structure (7).

- (7) a. *Hy leaude dat-st moarn do komme soest.
 he believes that-2SG tomorrow you come should.2SG
 ‘He believed that you should come tomorrow.’
 b. *Hy leaude dat moarn do komme soest.
 he believes that tomorrow you come should.2SG
 ‘He believed that you should come tomorrow.’ (Fuß, 2008, p. 85)

It is not the case that Frisian does not allow intervention between a complementiser and a subject at all. The examples in (8) show that intervention of a focus particle, or both a focus particle and an adverbial, is fine with 1SG and 3SG subjects.

- (8) a. dat sels ik / Jan komme soe.
 that even I / Jan come will
 ‘that even I / Jan will come.’
 b. dat altyd sels Feikje net thús is.
 that always even Feikje not home is
 ‘that even Feikje is not always home’ (J. Hoekstra, 2014, p. 143)

Furthermore, the ungrammaticality of intervention is not due to a special prohibition on modifying the 2SG subject pronoun with a focus particle. This can be demonstrated in two contexts. Frisian allows for embedded V2, but there is no CA with

embedded V2 clauses (9). In embedded V2 clauses, it is possible to modify the 2SG subject with a preceding focus particle, as illustrated in (10).³

- (9) Heit sei, dat do moast soks net leauwe.
 father said that you must.2SG such not believe
 ‘Father said that you shouldn’t believe such things.’
 (van der Meer, 1991, p. 71)
- (10) dat ek do ytst al fegetarysk.
 that also you eat.2SG already vegetarian
 ‘that you, too, eat vegetarian.’

When the subject of the embedded clause is a coordination with the 2SG pronoun *do* as the first conjunct, CA can be present, but this is optional (11). The coordinated subject can be modified by a focus particle, but in that case, CA is obligatorily absent, as (12) shows. Again, this illustrates that there is not a ban on modifying 2SG subject pronouns with a focus particle.⁴

- (11) a. dat-st-o en Jan de wedstriden winne sille.
 that-2SG-you and Jan the games win will.PL
 b. dat do en Jan de wedstriden winne sille.
 that you and Jan the games win will.PL
 ‘that you and Jan will win the games.’
- (12) dat ek do en Jan in wedstriid winne sille.
 that also you and Jan a game win will.PL
 ‘that also you and Jan are going to win a game.’

To summarise, the data suggest that the ungrammaticality of intervention between a complementiser and a 2SG subject in Frisian is related to CA: in the absence of intervention, CA is obligatory, and the intervening element(s) cause insertion of CA to be blocked, leading to ungrammaticality.

3.2.2 Limburgian

Like Frisian, Limburgian has obligatory CA with 2SG subjects, as (13) illustrates.⁵

³Frisian V2 clauses that are embedded under a complementiser show very little connection to the main clause. For instance, extraction from the embedded clause into the main clause is impossible, as is binding from outside of the embedded V2 clause. For this reason, de Haan (2001) analyses embedded V2 under a complementiser in Frisian as an embedded root phenomenon. The absence of CA in this construction is then the result of the absence of real embedding (cf. van Koppen, 2017) (though see Zwart (1997) for a different interpretation).

⁴CA with coordinated subjects in Frisian will be discussed in detail in section 3.5.1.

⁵The Limburgian data come from elicitations with two native speakers of a southern Limburgian dialect. It is their variety of Limburgian that I report on in this section. However, there is variation between speakers of Limburgian regarding intervention effects on CA. Van Koppen (2005) discusses the Limburgian dialect Tegelen Dutch in much detail, and shows that Tegelen Dutch behaves very differently from the Limburgian variety discussed here; in Tegelen Dutch, intervention does not affect CA (see also section 3.2.3). This

- (13) a. dat-s-tich de westrijd geis winne.
 that-2SG-you the game go.2SG win
 ‘that you are going to win the game.’
 b. * dat dich de westrijd geis winne.
 that you the game go.2SG win
 ‘that you are going to win the game.’

When an element, such as a focus particle, intervenes between the complementiser and the subject, the CA morpheme is realised between the focus particle and the subject, instead of on the complementiser (14).⁶ The size of the intervening material does not matter: in (14b), both a topicalised object and a focus particle intervene between the complementiser and the subject, and in (14c), both an adverb and a focus particle intervene; in both cases, the CA morpheme is realised to the right of the focus particle. Note that in Limburgian, *dich* and *doe* are in (apparent) free variation as 2SG subject pronouns.⁷

- (14) a. dat auch-s-tich waal ens vegetarisch uts.
 that also-2SG-you sometimes vegetarian eat.2SG
 ‘that you, too, sometimes eat vegetarian.’
 b. dat zaun boek allein-(s)-tich in ’t openbaar lus.
 that such.a book only-2SG-you in the public read.2SG
 ‘that only you would read such a book in public.’
 c. dat messchien auch-(s)-toe een andere baan geis zeuke.
 that maybe also-2SG-you a other job go.2SG look.for
 ‘that maybe you, too, will look for another job.’

The CA morpheme *-s* attaches to a focus particle exclusively in sentences where the subject follows a complementiser. As illustrated in (15), in sentences where the subject follows the main verb, inserting *-s* between an intervening focus particle and the subject is impossible. Furthermore, (16) shows that *-s* cannot attach to a focus particle that modifies a sentence-initial subject. These examples show that it is not the case that *-s* is inserted between a focus particle and the 2SG subject by default, as some kind of epenthesis; embedding under a complementiser is crucial.

- (15) a. * Volgens Jan uts auch-s-toe waal ens vegetarisch.
 according.to Jan eat.2SG also-2SG-you sometimes vegetarian
 ‘According to Jan, you, too, sometimes eat vegetarian.’

might be the reflection of a regional difference within Dutch Limburg, as Tegelen is in the north of the Limburgian area, whereas my informants are from the south (Stein and Sittard, specifically). I have also consulted speakers of Limburgian for whom intervention leads to the absence of CA. This might be related to the fact that all the speakers I consulted are bilingual in Dutch and Limburgian, and have spent at least a few years of their lives living outside of the province of Limburg. The different judgements could therefore be an influence from Dutch, or the consequence of dialect attrition.

⁶When the intervener is larger than just a focus particle, CA appears to be optional. At the moment, I do not have an explanation for this.

⁷I come back to this in footnote 21.

- b. Volgens Jan uts auch doe waal ens vegetarisch.
 according.to Jan eat.2SG also you sometimes vegetarian
 ‘According to Jan, you, too, sometimes eat vegetarian.’
- c. * Volgens mich lus zaun book allein-s-tich in ‘t openboar.
 according.to me read.2SG such.a book only-2SG-you in the public
 ‘According to me would only you read such a book in public.’
- d. Volgens mich lus zaun book allein dich in ‘t openboar.
 according.to me read.2SG such.a book only you in the public
 ‘According to me would only you read such a book in public.’

- (16) * Auch-s-tich uts waal ens vegetarisch.
 also-2SG-you eat.2SG sometimes vegetarian.
 ‘You, too, sometimes eat vegetarian.’

The morpheme *-s* is also not an inherent part of the subject itself, as demonstrated by the example in (17); a non-modified sentence-initial subject cannot be preceded by *-s*.

- (17) * s-tich / s-toe dè de wedstrijd geis winne
 2SG-you / 2SG-you that the game go.2SG win
 ‘you, who will win the game’

In Limburgian, intervention between the complementiser and the subject appears to be possible only if the intervener is, or contains, a focus particle that modifies the subject. This is the case regardless of the φ -features of the subject, as demonstrated with a 2SG and 3SG subject below. Presumably, this is due to factors related to information structure: intervention between the complementiser and the subject is only possible if the subject is focus. Modification of the subject with a preceding focus particle most likely facilitates this reading.

- (18) a. * dat zaun book-s-tich zelfs neet in ‘t openboar lus.
 that such.a book-2SG-you even not in the public read
 ‘that such a book you would not even read in public.’
- b. * dat zaun book hea zelfs neet in ‘t openboar lus.
 that such.a book he even not in the public read
 ‘that such a book he would not even read in public.’

In summary, when there is intervention between the complementiser and the subject in Limburgian, CA is not spelled out on the complementiser, but on the intervener.

3.2.3 Complementiser agreement in other West Germanic varieties

Frisian and Limburgian show different intervention effects on CA than the varieties that have been discussed in the literature. In this section, I will demonstrate what the patterns in other varieties are.

In the first set of West Germanic languages with CA, intervention between the complementiser and the subject does not seem to affect CA; the complementiser shows agreement despite the presence of an intervening element. Varieties that behave this way are Bavarian (Bayer, 1984; Gruber, 2008), Tegelen Dutch (van Koppen, 2005), and West Flemish (Haegeman, 1992; Haegeman & van Koppen, 2012), illustrated below.

- (19) a. *dass-st du kummst.*
 that-2SG you come.2SG
 ‘that you are coming.’
 b. *dass-st auch du an Hauptpreis gwunna hosd.*
 that-2SG also you the first.prize won have.2SG
 ‘that you, too, have won the first prize.’
 Bavarian (van Koppen, 2005, pp. 43, 144)
- (20) a. *de-s doow Marie ontmoets.*
 that-2SG you Marie meet.2SG
 ‘that you will meet Marie.’
 b. *de-s auch doow merge kums.*
 that-2SG also you tomorrow come.2SG
 ‘that you, too, will come tomorrow.’
 Tegelen Dutch (van Koppen, 2005, pp. 137, 144)
- (21) a. *Kpeinzen da-n die venten Marie kennen.*
 I.think that-PL those guys Marie know.PL
 ‘I think that those guys know Marie.’
 b. *Kpeizen da-n zelfs men broers zuknen boek niet lezen.*
 I.think that-PL even my brothers such.a book not read.PL
 ‘I think that even my brothers do not read such a book.’
 West Flemish (Haegeman & van Koppen, 2012, pp. 445, 446)

Bavarian and Tegelen Dutch are similar to Frisian and Limburgian in that they have CA for 2SG. In addition, Bavarian has CA for 2PL and, in Lower Bavarian, 1PL (Bayer, 1984). West Flemish is unique in that it has a full CA paradigm (Haegeman, 1992).

The other type of intervention effect is found in Hellendoorn Dutch. As already shown in the introduction, in Hellendoorn Dutch, intervention results in the complete absence of CA:

- (22) a. *darr-e wiej den besten bint!*
 that-1PL we the best are.PL
 ‘that we are the best!’
 b. *dat zölfz wiej de westrijd wint.*
 that even we the game win.PL
 ‘that even we win the game.’
 Hellendoorn Dutch (van Koppen, 2005, pp. 110, 143)

Hellendoorn Dutch differs from the other varieties with CA on some other points as well. First of all, it only has CA for 1PL, and not for 2SG, as all the other varieties have. Furthermore, Hellendoorn Dutch is a position dependent agreement language: agreement on a verb that follows the subject is different than agreement on a verb that precedes the subject, or on a complementiser: in the word order C/V-subject, the agreement morpheme is $-\text{ə}$, whereas in the subject-V, the verb inflects with the morpheme $-t$, as can be seen on the verbs in (22) (see also Chapter 2 for a more detailed discussion of position dependent agreement in Hellendoorn Dutch). On the relation between position dependent agreement and CA, see Zwart (1997) and van Koppen (2005).

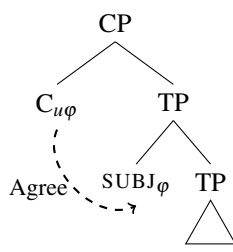
To sum up, West Germanic varieties can respond in four different ways to intervention between an agreeing complementiser and the subject. In existing literature, it is observed that in e.g. Bavarian and Tegelen Dutch, CA is not affected by intervention, and that in Hellendoorn Dutch, CA disappears under intervention. This chapter shows that there are two additional intervention effects: in Frisian, intervention leads to ungrammaticality (see also de Haan, 2010), and in Limburgian, intervention causes the CA morpheme to be realised between the intervener and the subject.

3.2.4 Problems for previous analyses

In recent literature on CA, two types of analyses of CA can be found, that make different predictions regarding intervention effects (see van Koppen, 2017 for a recent overview). I will discuss them here, and show that they cannot account for the Frisian and Limburgian data from sections 3.2.1 and 3.2.2.

According to the first type of analysis, CA is the spell out of an Agree relation (Carstens, 2003; van Koppen, 2005; Haegeman & van Koppen, 2012). The idea is that C is a φ -Probe that Agrees with the subject in Spec,TP, as in (23). The valued φ -features are spelled out as inflection on the complementiser. This analysis is well-suited to account for languages in which CA is not affected by intervention, such as in Bavarian, Tegelen Dutch, and West Flemish (see the previous section); an intervening element should not affect the Agree relation between the Probe C and the subject in Spec,TP, because the hierarchical relationship between the Probe and the subject remains the same. The Agree analysis of CA thus predicts that CA is not affected by intervention.

(23)



The alternative analysis is that CA is the result of a PF operation. There are several implementations of this analysis. Ackema and Neeleman (2004) propose that CA is the result of feature checking at PF. According to Weisser (2019), CA is the result of allomorphy. Finally, Fuß (2008, 2014) proposes that CA is the result of PF feature copying. The different implementations make slightly different predictions about intervention effects on CA. The approaches based on feature checking and allomorphy require that the complementiser and the subject are adjacent for CA to be inserted. These approaches therefore predict that CA disappears under intervention, as is the case in Hellendoorn Dutch. In other words, the PF approaches based on feature checking and allomorphy are well-suited to account for CA in Hellendoorn Dutch.⁸

The PF feature copying approach by Fuß (2008, 2014) is slightly different. Fuß observes that in Bavarian, a complementiser only shows CA when the clause it embeds contains a finite verb. For instance, in comparative clauses, the comparative complementiser shows CA when the comparative is clausal and contains a finite verb, but not when the comparative clause is phrasal and only contains a noun. This is illustrated in (24).

- (24) a. D'Resl is gresser als wia-st du bist.
 the.Resl is taller than as-2SG you are.2SG
 'Resl is taller than you are.'
- b. D'Resl is gresser als wia du.
 the.Resl is taller than as you.
 'Resl is taller than you.'
- c. *D'Resl is gresser als wia-st du.
 the.Resl is taller than as-2SG you
 'Resl is taller than you.' Bavarian (Fuß, 2014, p. 60)

Based on these and other data, Fuß proposed that CA is copied from the verb to the complementiser. Because copying does not depend on adjacency between the subject and the complementiser, but on the presence of a finite verb in the embedded clause, this account does not predict an effect of intervention between the subject and the complementiser on CA. Fuß' account is therefore compatible with the absence of intervention effects on CA in e.g. Bavarian and Tegelen Dutch.

Although the Agree and PF analyses of CA are successful in deriving the intervention effects of the varieties that I discussed in section 3.2.3, the Frisian and Limburgian data pose problems for both of them. Recall that in Frisian, disrupting adjacency between the complementiser and the 2SG subject by a focus particle, in contexts that would otherwise trigger CA, leads to ungrammaticality (illustrated in (25), repeated from (5)). This is unexpected from an Agree perspective, as linear adjacency is not a requirement for Agree to succeed. In fact, when a focus particle intervenes between

⁸The analyses of CA based on PF feature checking and allomorphy differ on the timing of the PF operation; according to the order of operations at PF argued for by Ackema and Neeleman (2004), PF feature checking takes place before deletion of traces, whereas allomorphy takes place after traces are deleted. These accounts therefore make different predictions about whether CA can be triggered by a trace. Dialects vary on this point, see van Koppen (2005).

an agreeing verb and a non-2SG subject, Agree succeeds even in Frisian. This is illustrated in (26), where the verb can Agree with a 3SG or 3PL subject despite the presence of an intervening focus particle. The contrast with (25) is not due to the fact that the Agreeing element is a verb instead of a complementiser, as (27) shows that intervention between a verb and a 2SG pronoun also leads to ungrammaticality.

- (25) * dat-(st) ek do [...] fegetarysk ytst.
 that-(2SG) also you vegetarian eat.2SG
 ‘that you, too, eat vegetarian.’
- (26) a. Miskien giet sels hy Jan helpen.
 maybe go.3SG even he Jan help
 ‘Even he is maybe going to help Jan.’
 b. Miskien gean sels sy Jan helpen.
 maybe go.3PL even they Jan help
 ‘Even they are maybe going to help Jan.’
- (27) * Neffens Jan giest sels do net nei it feest.
 according.to Jan go.2SG even you not to the party
 ‘According to Jan, even you are not going to the party.’

We can conclude that CA in Frisian (as well as 2SG verbal agreement) differs from agreement with other subjects, in that it requires adjacency of the Agreeing element to the pronoun it Agrees with. Since this requirement is unexpected for Agree, and not found with other agreement morphemes, it is unlikely that CA in Frisian is the result of Agree.

In Limburgian, when an intervener is present the CA morpheme does not attach to the complementiser, but between the subject modifier and the subject itself ((14), repeated as (28)). It was further shown that presence of the CA morpheme crucially depends on presence of the complementiser.

- (28) a. dat auch-s-tich waal ens vegetarisch uts.
 that also-2SG-you sometimes vegetarian eat.2SG
 ‘that you, too, sometimes eat vegetarian.’
 b. dat zaun book allein-(s)-tich in ’t openboar lus.
 that such.a book only-2SG-you in the public read.2SG
 ‘that only you would read such a book in public.’

These data are also problematic for Agree approaches to CA. Under the Agree approach, the complementiser is the target of Agree. Given this, we do not expect that the agreement is not spelled out on the target of Agree, but on a different element further down in the structure.

A potential solution to this problem is that the agreement morpheme and an adjacent syllable undergo metathesis (as in Harris and Halle, 2005’s approach to mesoclisism in Spanish imperatives) or local dislocation (Embick & Noyer, 2001). The result of such an operation would be that the agreement morpheme is not attached to the agreement target, but to the next syllable. The problem for this account is that the material

that can intervene between the complementiser and the subject can be of variable complexity; while in (28a) the intervener is just one word, in (28b), it consists of a whole phrase and a word. Yet in both examples, the CA morpheme *-s* attaches to the focus particle. This shows that placement of the CA morpheme is structurally determined, not phonologically. Another potential solution to the Limburgian data is that we are not dealing with CA, but with an agreeing adverb (cf. Corbett, 2006). This is unlikely as well, because the presence of the CA morpheme is conditioned by the presence of a complementiser: when the subject is not embedded, the CA morpheme is absent. This is the case for both sentence-initial subjects and subjects that are preceded by a verb, as illustrated in section 3.2.2. This shows that the adverb agreement analysis does not work. I therefore conclude that an Agree analysis of CA in Limburgian cannot account for the observations.

The Frisian and Limburgian data also pose several issues to PF accounts of CA.⁹ Starting with Frisian, PF accounts cannot explain the ungrammaticality, caused by intervention between a complementiser and a subject, that is linked to CA. According to the various PF analyses, CA is inserted as the result of a rule that applies at PF. The rule applies when a particular input is present at PF. For the feature copying account (Fuß, 2008, 2014), the PF rule applies when the embedded clause contains a finite verb. The presence of an intervener between the complementiser and the subject does not affect the presence of the finite verb, so the features on the finite verb should be copied to the complementiser and be spelled out as CA. Ungrammaticality of intervention does not follow under this PF account of CA. For the feature checking and allomorphy accounts, the input for application of the PF rule would be the sequence *that you*. If this sequence is disrupted by the presence of an intervener, the PF input is simply a PF representation that does not contain the sequence *that you*. The PF rule will therefore not apply. Non-application of the PF rule does not have further consequences, because there is an infinite number of PF representations that do not contain the sequence *that you*. The fact that adjacency leads to ungrammaticality is therefore very hard to account for. Instead, the Frisian data suggest that the ungrammaticality of intervention in Frisian is a syntactic problem, caused by a derivation that is not syntactically convergent, because CA and an intervener are present at the same time.

The Limburgian data are also problematic for PF accounts of CA. The PF analyses assume that CA is the result of a PF operation that involves C (be it feature checking on C, feature copying to C, or choosing an allomorph of C). However, when an intervener is present between the complementiser and the subject in Limburgian, it is not the complementiser that is morphologically affected, but the subject modifier or the subject itself. This is difficult to account for under any analysis that assumes C to be the target of the operation that is responsible for CA.

Apart from the data on the intervention effect on CA, there are additional data that are problematic for PF approaches to CA, that involve a semantic effect of CA. In Frisian, the complementiser optionally shows first conjunct complementiser agree-

⁹In addition to the objections raised here, several other arguments against PF analyses of CA have been put forth in the literature; see in particular van Koppen (2005, 2012), and Haegeman and van Koppen (2012).

ment (FCCA) when the first conjunct of a coordinated subject is a 2SG pronoun. When FCCA is present, the preferred interpretation is a two-event reading, i.e. in (29a) ‘you’ and ‘Jan’ are participating in (and winning) separate games. When FCCA is absent, the preferred interpretation is a one-event reading. In (29b), ‘you’ and ‘Jan’ are playing and winning games as a team.¹⁰

- (29) a. Ik tink dat-st-o 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)
- b. 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)

These data pose a serious problem for PF analyses of CA. Given the standard inverted Y-model on the organisation of the grammar (see also Chapter 1), PF and semantics (LF) are not connected. This means that alternations at PF should not have an effect on semantics. The observation that the presence of CA has semantic consequences shows that it must be established in the syntactic component, before the derivation is sent to PF and LF. I will return to these data in section 3.5.1.

3.3 CA morpheme is a clitic

In the previous section, I introduced the data on the intervention effect on CA in Frisian and Limburgian, and showed that the intervention effect in these varieties cannot be analysed as the result of Agree or a PF phenomenon. In this section, I argue that the CA morpheme in Frisian and Limburgian is a pronominal clitic.

3.3.1 Diagnosing clitics

As the discussion of previous analyses of CA shows, most previous analyses treat the CA morpheme as an affix (e.g. Ackema & Neeleman, 2004; van Koppen, 2005; Fuß, 2008, 2014). I show in this section that when we consider the properties of the CA morpheme in more detail, it turns out to behave more like a clitic than an affix. I go through several morphosyntactic and morphological diagnostics to distinguish between clitics and affixes, and consider whether they can be applied to the CA morpheme, and if so, what the outcome is. Next to demonstrating that the CA morpheme behaves clitic-like in all testable respects, this section shows that some of the tests that diagnose the status of object referencing morphology do not work for subjects, because of their different positions in the syntactic structure.

¹⁰This example has been checked with multiple speakers of Frisian. The contrast between the two readings is not equally strong for all speakers.

Starting with the morphosyntactic diagnostics, the first property of clitic doubling I will consider is the ‘featural coarseness’ of clitic doubling (Preminger, 2014). Preminger argues that clitic doubling always copies the full set of features of the pronoun, whereas inflection can be partial.¹¹ As demonstrated in Chapter 2, in many varieties of Dutch, 2SG verbal inflection is position dependent: the verb shows different agreement morphology in VS and SV word order. This is illustrated in (30) with an example from standard Dutch. In Chapter 2, I analysed position dependent agreement as partial agreement; in particular, in the case of position dependent agreement for 2SG, the verb inflects as if it were a 1SG in VS word order.

- | | | | | | |
|------|----|--------------|--|----|----------|
| (30) | a. | ik werk | | c. | werk ik |
| | | I work | | | work I |
| | b. | jij werk-t | | d. | werk jij |
| | | you work-2SG | | | work you |

Standard Dutch

When we look at the complete Dutch language area, including Frisian, we can observe that position dependent agreement for 2SG exists in almost all varieties, but crucially not in Frisian and Limburgian. This is illustrated in figure 3.1, based on data from the DynaSAND (Barbiers et al., 2006) (see also Chapter 2); the Frisian (north-west) and Limburgian (south-east) areas do not have position dependent agreement, but do have CA for 2SG. These observations are easily understood if the 2SG morpheme is a clitic. Because of the featural coarseness of clitic doubling, the clitic never enters into partial agreement of the type in (30), resulting in the absence of position dependent agreement with this morpheme. The clitic nature of the 2SG morpheme also allows it to attach to a complementiser, accounting for the anti-correlation between CA and position dependent agreement. This interpretation implies that agreement on the verb in C (in VS word order) and CA have the same status. This is not surprising, since both CA and verbal agreement in VS word order spell out features of C. In the remainder of this section, I will therefore also consider verbal agreement in VS word order to determine whether the CA morpheme is a clitic or agreement.¹²

Next to the featural coarseness of clitic doubling, Preminger (2009, 2014) looks at failed Agree to tell apart the spell out of agreement and clitic doubling. A typical context for failed Agree are cases where an argument in an A-position intervenes between

¹¹Richard Kayne and Sjeff Barbiers point out to me that there are some phenomena that do not adhere to the generalisation that clitic doubling is featurally coarse, at least superficially. For instance, in Spanish, a singular dative clitic can double a plural noun phrase (R. Kayne p.c.). In Finnish, a subject can be doubled by an element that mismatches in number (Holmberg & Nikanne, 2008). However, both phenomena have received alternative explanations in the literature. For Spanish, Guajardo (2020) argues that the element that fails to double the number feature of Spanish datives is, in fact, an agreement marker, whereas the element that doubles all features is a clitic. Van Urk (2018) provides an analysis of the Finnish data, according to which the copied pronoun undergoes partial deletion because of economy requirements at PF. Having set aside these counterexamples, I conclude that the diagnostic based on featural coarseness is valid.

¹²Something more needs to be said about some other cases of verbal agreement, i.e. verbal agreement in SV word order, and verbal agreement in Limburgian VS contexts where an element intervenes between the verb and the subject. I will come back to these cases in section 3.3.3.

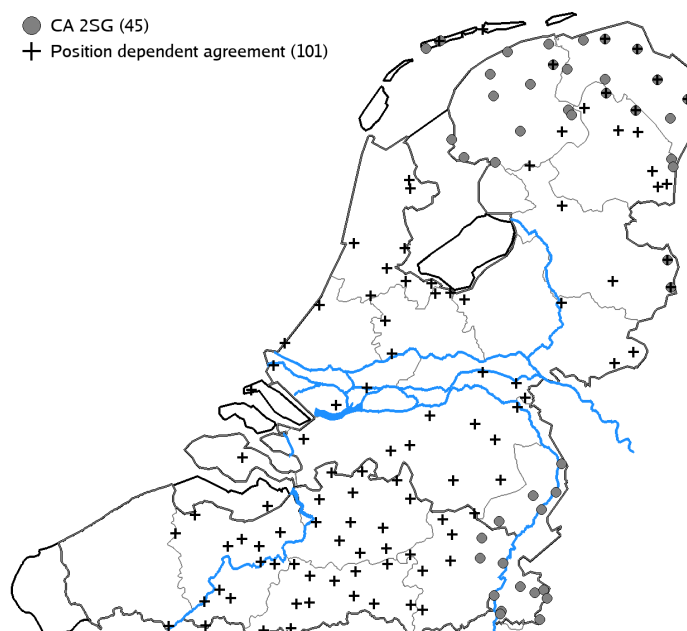


Figure 3.1: CA and position dependent agreement (based on paradigm for *leven* ‘to live’, DynaSAND) in the Dutch language area

the targeted Goal and the Probe; the higher argument is unable to value the features of the Probe, but also blocks further Probing. Failed agreement leads to the insertion of a default morpheme (as the result of default valuation), whereas failed clitic doubling results in the absence of an exponent altogether. Because failed Agree requires intervention of an argument in A-position, this diagnostic can only be applied to cases where the targeted Goal is not the highest argument. In West Germanic, CA always reflects the features of the nominative subject in Spec,TP. The Agree relation between the Probe C and the targeted Goal therefore never ‘fails’ in the relevant sense; there is no higher argument in an A-position than the subject in Spec,TP. This diagnostic can therefore not be applied to CA.¹³ A similar issue arises with Harizanov (2014),

¹³For completeness, it is good to note that constructions where the nominative argument is not the highest element in an A-position exist (in Dutch, but to the best of my knowledge, also in Frisian and Limburgian). However, these do not obtain with pronominal nominative arguments, but with DPs. The first of those constructions involve nominative-dative verbs like *bevallen* ‘to please’. Although the arguments can occur in both orders in an embedded clause, when the nominative argument is pronominal, it has to come first: **dat mij_{DAT} jij_{NOM} bevalt.* (‘that you please me.’). *It*-clefts are another example in which the nominative is not necessarily the highest element (e.g. *dat het de jongens zijn.* (lit. ‘that it the boys are’)). Again, if the nominative argument is pronominal, the word order where the nominative is below ‘it’ is extremely marked (cf. Hartmann & Heycock, 2019); instead, the inverse word order pronoun-*it*-verb is used: *dat hij het is* (lit. ‘that he it is’). Finally, constructions with expletive *er* ‘there’ in Spec,TP are allowed only with indefinites, which pronouns are not: *dat er een jongen viel* (lit. ‘that there a boy fell’); **dat er hij viel* (lit. ‘that there he fell.’).

Kramer (2014) and Baker and Kramer (2018)'s diagnostic for clitic doubling. These authors argue that clitic doubling extends the binding domain of the doubled argument. Although this works well for object markers, as demonstrated for several languages in Baker and Kramer (2018), it cannot be applied to subjects, because an extension of the binding domain of the subject will not have any detectable consequences, it being the highest argument in the clause already.

An additional relevant morphosyntactic property of the CA morpheme in Frisian (as well as in some other varieties with CA, such as Bavarian (Fuß, 2004)), is that it appears to license *pro*-drop, as illustrated in (31).

- (31) a. Miskien moat-st my helpe.
 maybe must-2SG me help
 ‘Perhaps you have to help me.’ (de Haan, 2010, p. 216)
- b. dat-st de wedstriid winne silst.
 that-2SG the game win will.2SG
 ‘that you will win the game.’

Examples like (31) are often considered as evidence that Frisian is a partial *pro*-drop language, where *-st* is strong enough to license an empty subject position because it is an inflectional morpheme that is unique to the 2SG context (see e.g. de Haan, 2010; Koeneman and Zeijlstra, 2019). There are several reasons to doubt this interpretation, however. First of all, the 2SG morpheme is not the only unique morpheme in the paradigm; the 1SG and 3SG agreement affixes are also unique in Frisian (\emptyset and *-t*, respectively). However, these affixes do not licence *pro*-drop. Furthermore, while partial *pro*-drop is attested in several languages outside of West Germanic, these languages show a participant-based split: typically, only 1P and 2P pronouns may be dropped (e.g. in Finnish and Hebrew (Vainikka & Levy, 1999)). Frisian, and other West Germanic varieties that behave similar to Frisian, do not fit into this typology. For these reasons, I conclude that Frisian does not have partial *pro*-drop. Instead, I propose that data like (31) should be interpreted as an argument that *-st* is pronominal, instead of an agreement affix. In other words, *-st* in (31) is the subject pronoun, that cliticises to the verb or the complementiser. This interpretation explains the contrast with the 1SG and 3SG morphemes, since these are agreement affixes, and therefore require the realisation of an overt pronoun. Furthermore, it explains why Frisian behaves differently from other languages with partial *pro*-drop, since Frisian does not have partial *pro*-drop.¹⁴

To summarise so far: although some morphosyntactic diagnostics for clitichood cannot be applied to the CA morpheme, its featural coarseness and its ability to appear without an independent pronoun indicate that the CA morpheme is a clitic, rather than agreement. This conclusion is further supported by the morphological behaviour of the CA morpheme. Even though morphophonological clitichood and pronominal clitichood do not always overlap (cf. Yuan, 2021 for recent discussion), the morphological behaviour of the CA morpheme sets it apart from other members in the paradigm of subject referencing morphology, as I will demonstrate below. I suggest that the

¹⁴In section 3.4.2, I discuss why the Limburgian CA morpheme cannot be used as the subject pronoun.

special morphological behaviour of the CA morpheme further promotes its syntactic status of a clitic, in order to maintain a one-to-one mapping between pronominal clitic and morphological clitic, and Agree and affixes, within the same paradigm.

The first morphological property I consider is the degree of host selectivity: clitics, but not affixes, exhibit a low degree of selection with respect to their hosts (Zwicky & Pullum, 1983). As already demonstrated by Gruber (2008) for Bavarian (see also Bayer, 1984, f.n. 36), CA passes this diagnostic. The CA morpheme can occur not only on subordinating complementisers, but also on *wh*-phrases (32), relative pronouns (33)¹⁵, comparative complementisers (34)¹⁶, and focus particles ((35), repeated from (14)). Other subject referencing morphemes do not show this behaviour.

(32) CA on *wh*-phrases

- a. *wanneart-st-o dat dochst.*
when-2SG-you that thought.2SG
'when you thought that.' Frisian (Visser, 1988, p. 202)
- b. *Iech wil waete wiewöl geld-s te höbs.*
I want know how-much money-2SG you have.2SG
'I want to know how much money you have.'
Limburgian (E. Hoekstra & Smits, 1997, p. 11)

(33) CA on relative pronouns

- a. *Grutte omkoal, dyt-st biste!*
big dullard that-2SG are.2SG
'Such a dullard you are.' Frisian (J. Hoekstra, 1997, p. 80)
- b. *Det is eine man woo-s-te neit van op aan kèns.*
that is a man who-2SG-you not of on on can.2SG
'That is a man that you cannot count on.'
Limburgian (van der Sijs, 2019)

(34) CA on comparative complementisers

- a. *Ik bin grutter as-st-o bist.*
I am bigger than-2SG-you are.2SG
'I am bigger than you' Frisian (van der Meer, 1991, p. 65)
- b. *Du geloofst zeker niet dat er sterker is wie-s-tu.*
you believe.2SG surely not that he stronger is than-2SG-you
'You surely don't believe that he is stronger than you.'
Limburgian (van Koppen, 2017, p. 5)

¹⁵Descriptively, Frisian phrasal complementisers (e.g. *foar* 'before', *nei* 'after', *hoewol* 'although') obligatorily co-occur with *dat* 'that' or *oft* 'if', or a clitic form *-t* (Visser, 1988; data from E. Hoekstra, 2020a). These constructions are undergoing a process of grammaticalisation: while in many cases both the full and the clitic complementiser are fine (e.g. *foardat*, *foar-t* 'before-that'), some phrasal complementisers only occur with the clitic form (*of-t*, **of-dat* 'if-that'). Moreover, with some examples of the latter type, the complementiser can be doubled again: *oan* 'until' can be *oan-t* (but not **oan-dat*), but also attested is *oan-t dat* ('until-that that'). The relative pronoun *dyt* is of the type that does not allow realisation of the full form of the complementiser (**dy-dat*). I therefore assume that it has completely grammaticalised and that this is not a case of doubly filled COMP.

¹⁶The glossing of (34) as containing CA is supported by van der Meer (1991) and Fuß (2014).

(35) CA on focus particles

- a. dat auch-s-tich waal ens vegetarisch uts.
 that also-2SG-you sometimes vegetarian eat.2SG
 ‘that you, too, sometimes eat vegetarian.’
- b. dat zo’n boek allein-s-tich in ’t openbaar lus.
 that such.a book only-2SG-you in the public read.2SG
 ‘that only you would read such a book in public.’ Limburgian

Two additional relevant morphological features of the CA morpheme have to do with allomorphy and morphologically idiosyncratic behaviour. Starting with allomorphy, Nevins (2011) argues that clitics are typically tense-invariant, whereas affixes can have tense-sensitive allomorphs. E. Hoekstra and Smits (1997) observe that CA morphemes are tense-invariant, leading to their ‘agreement in present tense = agreement in past tense’ generalisation:

(36) **The ‘agreement in present tense = agreement in past tense’ generalisation:**

complementiser agreement can only occur when the agreement ending of the verb in inversion [verb-subject word order, AvA] in the present tense is identical to the ending of the verb in inversion in the past tense.

(E. Hoekstra & Smits, 1997, p. 23, translated from Dutch)

Using data from GTRP and DynaSAND, I will now demonstrate that this generalisation holds for 2SG CA in a large number of Dutch and Frisian varieties. Figure 3.2 depicts the varieties that have an overt 2SG morpheme in verb-subject word order in present tense (for the verb *leven* ‘to live’), and for which there is a past tense counterpart that uses an overt past tense morpheme (data from GTRP). Almost all of these varieties use the same 2SG morpheme in present and past tense. In addition, the varieties with 2SG CA are depicted (data from DynaSAND). It is clear that the areas fully overlap.

However, recall from Chapter 2 that essentially all varieties that do not have a unique 2SG morpheme have position dependent agreement for 2SG. That means that in the verb-subject word order, the 2SG affix is replaced by the (typically) zero 1SG affix. Because in these varieties, there is no overt inflection on the verb in the verb-subject word order, it is hard to tell whether inflection is the same across tenses in varieties with position dependent agreement. Instead, we can compare the pattern of tense allomorphy of the 2SG agreement morpheme with tense allomorphy of the 3SG agreement morpheme in the same language, because the 3SG does not show position dependent agreement (in most varieties). Because data on 3SG past tense inflection in the verb-subject word order is not available in the GTRP, here I use the subject-verb word order of the verb *leven* ‘to live’. There are 73 data points on tense allomorphy with the 3SG that overlap with the data points in figure 3.2. For all these data points, the 3SG affix is tense-variant, showing a sharp contrast with the 2SG morpheme. A linguistic example illustrating the pattern is given in (37); the 2SG morpheme *-st* is used both in present and past tense, but the 3SG morpheme, as well as the 2PL morpheme,

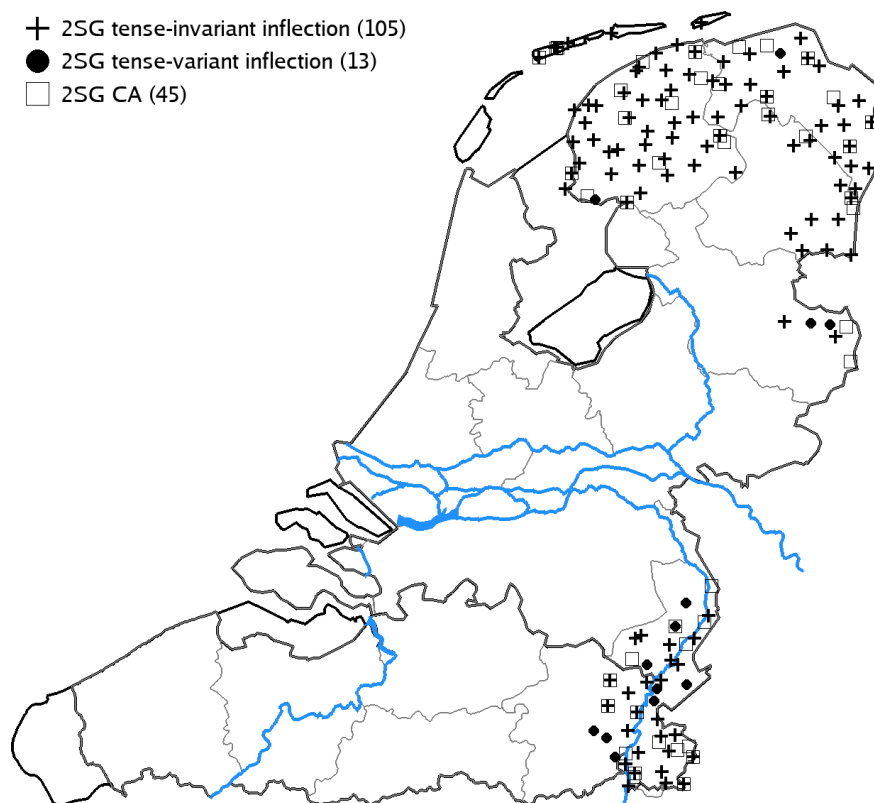


Figure 3.2: Tense-invariance of 2SG morpheme and 2SG CA

varies across tenses. I conclude that the tense-invariance of the 2SG CA morpheme is a unique property of this morpheme compared to other agreement morphemes in the paradigm, which is compatible with treating the CA morpheme as a clitic, according to Nevins (2011)'s diagnostic.

- | | | |
|------|---------------------------------------|--|
| (37) | a. gie-st-o
go-2SG-you | d. gong-st-o
went-2SG-you |
| | b. gie-t hy
go-3SG.PRS he | e. gong hy
went he |
| | c. gean-e jim
go-PL.PRS you.PL | f. gong-en jimme
went-PL.PST you.PL |

Frisian (DynaSAND)

In addition to not showing allomorphy, clitics are typically insensitive to properties of the host, whereas affixes can show morphological irregularities (Zwicky & Pullum,

1983). A relevant contrast is found in Limburgian verbal paradigms where the 2SG and 3SG verbs exhibit umlaut. In these contexts, the 3SG affix is dropped, but the 2SG morpheme is unaffected by verbal umlaut. This is illustrated in (38): the a–c examples contain a verb without umlaut, and both the 2SG and 3SG verb have an inflectional morpheme. In the d–f examples that contain a verb with umlaut, the 3SG morpheme is dropped, but the 2SG morpheme is not. Thus, in terms of morphological variability, the 2SG morpheme shows considerably less variation than other markers in the paradigm, which is compatible with analysing it as a morphological clitic.

- | | | |
|------|-------------------------------|-------------------------------|
| (38) | a. werk ich
work I | d. help ich
help I |
| | b. werk-s-toe
work-2SG-you | e. hulp-s-toe
help-2SG-you |
| | c. werk-t her
work-3SG he | f. hulp her
help he |

Limburgian

To sum up, the CA morpheme has the following properties that make it look more like a (pronominal and morphological) clitic than an agreement marker: it is featurally coarse; it can appear without an independent pronoun; it attaches to a variety of hosts; and it lacks the morphological variability that we find with other members of the subject referencing paradigm. I conclude that this combination of properties show that the CA morpheme in Frisian and Limburgian is not the realisation of agreement, but a pronominal clitic.

3.3.2 Arguments against the clitic analysis

The idea that the CA morpheme has clitic-like properties is not entirely new; in particular some older literature took the CA morpheme to be a clitic (Tiersma, 1985; van der Meer, 1991; Nübling, 1992).¹⁷ As a response, several arguments have been put forth claiming that the CA morpheme should not be analysed as a clitic. In this section, I will discuss two arguments from Frisian against the clitic analysis of the CA morpheme, and argue that they are not conclusive.

De Haan (1994, 1997, 2010) compares the Frisian CA morpheme to the weak 3SG subject morpheme *er* ('he'). De Haan shows that the two morphemes behave differently in reduction and extraction contexts. First, the sentences in (39) and (40) involve a coordination of sentences that have been reduced. As the contrast between (39b) and (40b) shows, the 3SG morpheme *er* can be reduced, but the CA morpheme *-st* cannot.

¹⁷Gruber (2008), who also applies several tests to determine whether the CA morpheme in Gmunden Bavarian is a clitic or inflection, finds that the CA morpheme shows properties of both affixes and clitics, and concludes that it is neither, but rather constitutes a third category that shows properties of both inflection and clitics.

- (39) a. hoe-t er en wannear-t er hjir komt.
 how-that he and when-that he here comes
 ‘how and when he comes here.’
 b. hoe-t en wannear-t er hjir komt.
 hoe-that and when-that he here comes
 ‘how and when he comes here.’ (de Haan, 2010, p. 219)
- (40) a. hoe-t-st en wannear-t-st hjir komst.
 how-that-2SG and when-that-2SG here come.2SG
 ‘how and when you come here.’
 b. *hoe-t en wannear-t-st hjir komst.
 how-that and when-that-2SG here come.2SG
 ‘how and when you come here.’ (de Haan, 2010, p. 219)

Second, in subject extraction contexts, such as relativisations or topicalisations, the CA morpheme can be used in the extraction site, but *er* cannot. This is illustrated for relativisations in (41), and for topicalisations in (42).

- (41) a. do, dyt-st gjin siler bist
 you who-2SG no sailor are
 ‘you, who are no sailor’
 b. *hy, dyt er gjin siler is
 he who he no sailor is
 ‘he, who is no sailor’ (de Haan, 2010, pp. 219, 220)
- (42) a. Do tink ik dat-st moarn komme silst.
 you think I that-2SG tomorrow come will.2SG
 ‘You, I think, will come tomorrow.’
 b. *Hy tink ik dat er moarn komme sil
 he think I that he tomorrow come will
 ‘He, I think, will come tomorrow.’ (de Haan, 2010, pp. 219, 220)

The examples in (39–42) demonstrate that the CA morpheme and the weak subject morpheme *er* have a different distribution. Based on this observation, de Haan, who takes *er* to be an ‘undisputed’ subject clitic, concludes that the CA morpheme is not a clitic. I think there are reasons to doubt this conclusion. Most importantly, it is not at all clear that *er* is a clitic. In contrast to the CA morpheme, *er* cannot be used as a double of the pronoun. This is an indication that *er* is a weak pronoun, instead of a clitic (Cardinaletti & Starke, 1999). Furthermore, there are other, independent, differences between the CA morpheme and *er*. For instance, *er* is syllabic, while the CA morpheme (*-st*) is not. This might have consequences for the behaviour of these elements in e.g. conjunction reduction (cf. Ionova, 2020 for the interaction between the prosodic properties of clitics and ellipsis).

The second argument that has been given against analysing the CA morpheme as a clitic, is that it can appear without an independent pronoun, giving the appearance of *pro*-drop. This is illustrated in (43) (de Haan, 1994, 1997, 2010):

- (43) a. Miskien moat-st Pyt helpe.
 maybe must-2SG Pyt help
 ‘Perhaps you have to help Pyt.’
 b. dat-st Pyt helpe moatst.
 that-2SG Pyt help must.2SG
 ‘that you have to help Pyt.’ Frisian (de Haan, 2010, p. 220)

I argued for the inverse interpretation of these data in the previous section (see also section 3.4.2): given the observation that an independent pronoun can be absent exclusively in the context of the 2SG morpheme indicates that the 2SG morpheme itself is pronominal, and that the data in (43) do not involve *pro*-drop.

3.3.3 Verbal agreement

In the preceding sections, I have presented several arguments for the claim that the 2SG CA morpheme in Frisian and Limburgian is a clitic. However, I have not addressed the status of the 2SG verbal agreement morpheme, even though verbal agreement and complementiser agreement have the same form. Moreover, I have used the verbal agreement data to support the clitic analysis. In this section, I will address this issue.

The idea that I will defend is that in Frisian and Limburgian, the 2SG verbal agreement morpheme and the 2SG clitic are homophonous. More specifically, 2SG verbal agreement is the realisation of valued ϕ -features on a head (T or C), and the 2SG clitic is the realisation of a syntactically independent double of the pronoun, triggered via Agree with C (see section 3.4.3 below). These separate exponents have the same phonological form. This means that, in theory, both morphemes can be present in the same clause. I propose that when these morphemes are sufficiently local to each other, one of them is deleted by haplology. In other contexts, both morphemes are realised. I will now go over the relevant configurations, and show that this proposal derives the data.

The first configuration I will consider are clauses with the word order complementiser–subject–(X)–verb. In this configuration, the clitic double of the 2SG subject attaches to the complementiser, and the verb (spelling out the valued ϕ -features on T) agrees with the subject. In other words, both the 2SG clitic and 2SG agreement are realised, as in (3) (repeated as (44)). The clitic and the agreement morpheme are homophonous. An analysis according to which the agreement morpheme on the verb is also a clitic cannot easily account for this pattern, as it would require the subject to clitic double twice, and the clitic to move downwards to attach to the verb, both of which are not standard properties of clitic doubling.

- (44) dat-st-o [...] fegetarysk ytst.
 that-2SG-you vegetarian eat.2SG
 ‘that you eat vegetarian.’ Frisian

The second configuration in which the 2SG clitic and the 2SG agreement marker could both be present are main clauses with VS word order. In this configuration,

the verb (in C) spells out the valued ϕ -features on C, realising 2SG agreement, and because the verb is in C, the subject also undergoes clitic doubling. This would lead to the outcome below:

(45) V-AGR-CLITIC pronoun

Because the agreement morpheme and the clitic are homophonous, this is a context in which one of the morphemes will be deleted by haplology. The surface form therefore contains the realisation of only one of the morphemes:

- (46) Moarn gie-st-o de wedstriid winnen.
 tomorrow go-2SG-you the game win
 ‘You are going to win the game tomorrow.’ Frisian

The homophony approach to 2SG agreement and the 2SG clitic also allows us to understand the parallel intervention effect on verbs and complementisers in Frisian. Recall that in Frisian, the presence of an intervener between the complementiser and a 2SG subject leads to ungrammaticality, in contexts that would have shown CA if the intervener had not been present. Furthermore, intervention between a verb and a 2SG subject (but not other subjects) also leads to ungrammaticality in Frisian. This pattern fits within the homophony account as follows. The VS word order is a context in which clitic doubling of the 2SG subject is triggered. As we know from the CA data, in Frisian it is not possible to have an intervener and a clitic in the same structure. Intervention between the verb and the subject in a VS context is therefore also predicted to be ungrammatical. Haplology to delete the clitic is not able to save the structure, because this takes place after the morphemes have been replaced with phonological material. This is ‘too late’ to save the ungrammatical syntax caused by the simultaneous presence of an intervener and a clitic.

Further support for the homophony approach to CA and verbal agreement comes from cases where the haplology rule seems to have failed to apply. Recall that in Limburgian, intervention between a complementiser and a 2SG subject causes CA to be displaced, as in (47a). However, when the intervener comes between a verb and 2SG subject, no such displacement takes place (47b) (examples repeated from section 3.2.2).

- (47) a. dat auch-s-tich waal ens vegetarisch uts.
 that also-2SG-you sometimes vegetarian eat.2SG
 ‘that you, too, sometimes eat vegetarian.’
 b. Volgens Jan ut-s auch doe waal ens vegetarisch.
 according.to Jan eat-2SG also you sometimes vegetarian
 ‘According to Jan, you, too, sometimes eat vegetarian.’ Limburgian

For cases like (47b), I propose that the haplology operation that deletes one of the homophonous morphemes can also apply when the two morphemes are not adjacent (see e.g. Yip, 1998 and Nevins, 2012 for other examples of non-adjacent haplology), as schematised in (48).

(48) V-AGR intervener-CLITIC pronoun \Rightarrow V-AGR intervener pronoun

Interestingly, it is marginally possible to realise both the agreement morpheme and the clitic (as on the left side of the arrow in (48)), or to realise the clitic, instead of the agreement morpheme:

- (49) a. ? Volgens Jan ut-s auch-s-toe waal ens vegetarisch.
 according.to Jan eat-2SG also-2SG-you sometimes vegetarian
 ‘According to Jan, you, too, sometimes eat vegetarian.’
- b. ? Volgens Jan it auch-s-toe waal ens vegetarisch.
 according.to Jan eat also-2SG-you sometimes vegetarian
 ‘According to Jan, you, too, sometimes eat vegetarian.’ Limburgian

I take these marginal examples to show that underlyingly, both the agreement morpheme and the clitic are present. One of these morphemes is deleted by haplology. The failed or incorrect application of haplology can be modelled in a constraint-based model of phonology.

In clauses with SV word order, the syntactic structure projects up to TP (see Chapter 2). Because C is not present in this structure, there will be no clitic doubling. Agreement is realised on the verb in T.

To conclude, in this section I argued that 2SG verbal agreement is homophonous with the CA clitic in Limburgian and Frisian. In particular contexts, both morphemes can be part of the structure, and they can also both be realised within the same clause. An important take-away is that the clitic is always created, even when it is in the end not distinguishable from verbal agreement if a verb is in C. We thus still expect the clitic to be syntactically active; this accounts for the parallel behaviour of verbs and complementisers in Frisian.

3.4 Analysis

In the previous sections, I demonstrated that the intervention effect on CA in Frisian and Limburgian is unaccounted for under existing analyses of CA, and that the CA morpheme in these varieties is a pronominal clitic. In this section, I develop an analysis of the intervention effect based on these results. I first discuss the analysis of clitic doubling by van Craenenbroeck and van Koppen (2008) that I adopt. Then, I look at further syntactic properties of the CA clitic, arguing that the clitic in Frisian and Limburgian is of a different structural size. This leads to the different intervention effects in these varieties, as I demonstrate in section 3.4.3.

3.4.1 The analysis of clitic doubling: van Craenenbroeck & van Koppen (2008)

In the literature, several analyses of clitic doubling have been proposed, with most of the recent ones using the ‘big DP-hypothesis’, or the idea that the clitic and the element that it doubles enter the structure as one unit (Uriagereka, 1995; Anagnostopoulou,

2003; van Craenenbroeck & van Koppen, 2008; Nevins, 2011, and others). Here, I will adopt the analysis of clitic doubling by van Craenenbroeck and van Koppen (2008). In contrast to the other analyses, their analysis deals with clitic doubling of subjects, in a variety of Brabantic Dutch; if CA is clitic doubling too, as I argue in this chapter, it is expected that it can be analysed with the same means as clitic doubling in other West Germanic varieties.

Van Craenenbroeck and van Koppen discuss clitic doubling of pronominal subjects in Wambeek Dutch, illustrated for 3PL in (50). In this example, the clitic *se* doubles the strong subject pronoun *zaailn*.

- (50) Ik paus da se zaailn kommen.
 I think that they_{CLITIC} they come
 ‘I think that they are coming.’
 Wambeek Dutch (van Craenenbroeck & van Koppen, 2008, p. 208)

To analyse this type of clitic doubling, van Craenenbroeck and van Koppen adopt the typology of pronouns by Déchaine and Wiltschko (2002), who propose that pronouns are phrasal structures that can be divided into three categories: pro-DPs, pro- φ Ps, or pro-NPs (see Cardinaletti and Starke, 1999 for a related proposal). These pronouns are in a containment relation to each other (see (51)). At the point of spell out, the whole pronominal structure is lexicalised by the corresponding pronoun (phrasal spell out).

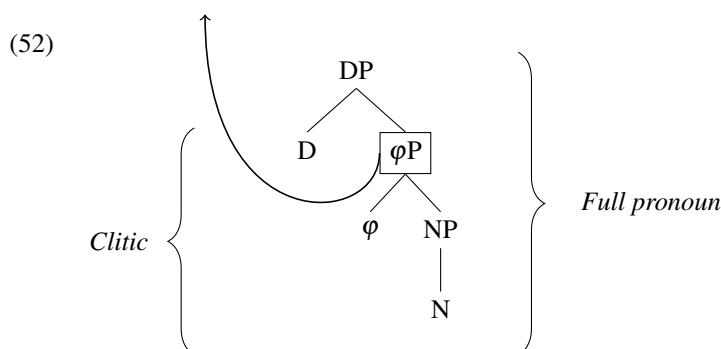
- (51) a. pro-DP b. pro- φ P c. pro-NP
-
- ```

 graph TD
 subgraph a [a. pro-DP]
 DP --> D
 DP --> phiP
 phiP --> phi
 phiP --> NP
 NP --> N
 end
 subgraph b [b. pro-phiP]
 phiP --> phi
 phiP --> NP
 NP --> N
 end
 subgraph c [c. pro-NP]
 NP --> N
 end

```

Pro-DPs, pro- $\varphi$ Ps, and pro-NPs be teased apart by looking at properties such as binding and argument status (see Déchaine and Wiltschko, 2002; Rullman, 2004). For instance, pro-DPs cannot function as bound variables, but pro- $\varphi$ Ps can. Based on this and other properties, van Craenenbroeck and van Koppen show that in Wambeek Dutch, clitics are pro- $\varphi$ Ps, and doubled pronouns are pro-DPs. In order to implement this observation in their analysis, van Craenenbroeck and van Koppen argue that clitic doubling is partial copying of the strong pronoun. More specifically, the  $\varphi$ P part of a DP pronoun can undergo copying and subsequent movement to a different position in the sentence. This leads to double spell out of the DP: the copied and moved  $\varphi$ P is spelled out as the clitic, while the whole DP is spelled out as the strong pronoun. This

is illustrated in (52) (partial copying as the underlying operation to syntactic doubling has also been proposed by Barbiers, 2006; Barbiers et al., 2010; Boef, 2013).<sup>18</sup>



Since this analysis of clitic doubling makes use of movement, it predicts that the structural size of the clitic has an effect on its syntactic behaviour, as a result of general syntactic restrictions on movement. In the next subsection, I will therefore identify the structural size of the CA clitic in Frisian and Limburgian.

### 3.4.2 The structural size of the clitic

In order to distinguish between pro-DPs, pro-phiPs, and pro-NPs, several tests have been proposed. First, the pronouns differ in their binding possibilities, such as being subject to Condition B or C of the Binding Theory, and the availability of bound variable readings (Déchaine & Wiltschko, 2002; Rullman, 2004): while pro-DPs are subject to condition C and cannot be used as bound variables, pro-phiPs are subject to Condition B, and can be used as bound variables. Second, pronouns differ in their argument status: both pro-DPs and pro-phiPs can be used as arguments, but pro-NPs cannot (Déchaine & Wiltschko, 2002; van Craenenbroeck & van Koppen, 2008). Finally, while pro-phiPs allow for generic readings, pro-DPs do not (Gruber, 2017).

However, while the binding properties of pronouns play a relatively big role in identifying their structural status, tests based on binding have been shown to not always work for first and second person pronouns (Déchaine & Wiltschko, 2002; Rullman, 2004; Gruber, 2017). Since the CA morphemes are 2SG morphemes, I will not use binding and bound variable readings as diagnostics.<sup>19</sup> Instead, I will only use argument status of the pronouns and the availability of generic readings. The properties of each of the types of pronouns are summarised in table 3.1.

With this background in place, I now turn to the identification of the structural size of 2SG morphemes, including the CA morpheme, in Frisian and Limburgian. Frisian has three 2SG morphemes: the full pronoun *do*, a weakened form *de* (*/dɔ/*), and the CA morpheme *-st*. *Do* and *de* can occur in the canonical subject position with *-st* present

<sup>18</sup>Of course, the NP can also undergo copying and movement in the same fashion as phiP can; see section 3.4.3 for an example of when this happens.

<sup>19</sup>Indeed, the outcome of applying these diagnostics to the CA varieties discussed here differs from the outcome of the other diagnostics.

Table 3.1: Properties of pronouns

|                      | Argument status | Generic readings |
|----------------------|-----------------|------------------|
| Pro-DP               | +               | –                |
| Pro- $\varnothing$ P | +               | +                |
| Pro-NP               | –               | N/A              |

as a double (53a, 53b); in addition, *-st* can appear on its own ((53c, 53d), repeated from (31)).<sup>20</sup>

- (53) a. Do moat-st my helpe.  
you must-2SG me help  
‘You have to help me.’ (de Haan, 2010, p. 215)
- b. De kinst poerbêst ite yn dat restaurant.  
you can.2SG very.well eat in that restaurant  
‘You can eat very well in that restaurant.’ (J. Hoekstra, 2010, p. 40)
- c. Miskien moat-st my helpe.  
maybe must-2SG me help  
‘Perhaps you have to help me.’ (de Haan, 2010, p. 216)
- d. dat-st de wedstriid winne silst  
that-2SG the game win will.2SG  
‘that you will win the game.’

It is clear that *do* and *de* can be used as arguments. In section 3.3, I argued that *-st* in (53c, 53d) is the subject of the clause that cliticises to the verb or complementiser. This means that *-st* is the argument here, and that all 2SG morphemes in Frisian are either pro-DPs or pro- $\varnothing$ Ps in the Déchaine and Wiltschko typology.

The availability of a generic interpretation allows us to decide between the two options. J. Hoekstra (2010) and E. Hoekstra (2020d) show that a generic reading is available with *-st* and *de*, but not with *do*. That is, (53b), and (54a,b) below, can receive a generic interpretation, but (54c) containing *do* cannot. I conclude that *do* is a pro-DP, while *-st* and *de* are pro- $\varnothing$ Ps.

- (54) a. Kinst poerbêst ite yn dat restaurant.  
can.2SG very.well eat in that restaurant  
‘You (generic) can eat very well in that restaurant.’  
(E. Hoekstra, 2020d)

<sup>20</sup>The examples in (53c, 53d) can also contain an additional full pronoun, as illustrated below:

- (i) a. Miskien moat-st-o my helpe.  
maybe must-2SG-you me help  
‘Perhaps you have to help me.’ (de Haan, 2010, p. 216)
- b. dat-st-o de wedstriid winne silst.  
that-2SG-you the game win will.2SG  
‘that you will win the game.’

- b. dat-st hurd riidst yn sa'n auto.  
that-2SG fast drive.2SG in such.a car  
'that you (generic) drive fast in such a car.'
- c. dat-st do hurd riidst yn sa'n auto.  
that-2SG you fast drive.2SG in such.a car  
'that you (specific) drive fast in such a car.' (J. Hoekstra, 2010, p. 40)

Limburgian has the following 2SG morphemes: *doe*, *dich*, *de* (*ldə*), *se* (*lsə*), and *-s*. See (55) for examples. Except for the CA morpheme *-s*, all 2SG morphemes can be used as the subject. The morpheme *-s* must always co-occur with one of the other morphemes. This is illustrated in (55c). I conclude that *-s* cannot be an argument by itself, and that it is therefore a pro-NP. Example (55b) illustrates that a generic reading is available for the pronouns *de* and *se*; these morphemes are therefore pro- $\phi$ Ps. The pronouns *doe* and *dich*, on the other hand, do not allow for a generic reading, as illustrated in (55a). These pronouns are pro-DPs.

- (55) a. Doe / dich kries un gooj baan es se gooje cijfers hoals.  
you / you get.2SG a good job if you good grades obtain.2SG  
'You (specific) will get a good job if you obtain high grades.'
- b. De kries un gooj baan es se gooje cijfers hoals.  
you get.2SG a good job if you good grades obtain.2SG  
'You (generic) will get a good job if you (generic) obtain high grades.'
- c. \*Morge geis de wedstried winne.  
tomorrow go.2SG the game win  
'Tomorrow you will win the game.'

The structural status of each the pronouns is summarised in table 3.2. The CA morphemes are boxed for clarity.<sup>21</sup>

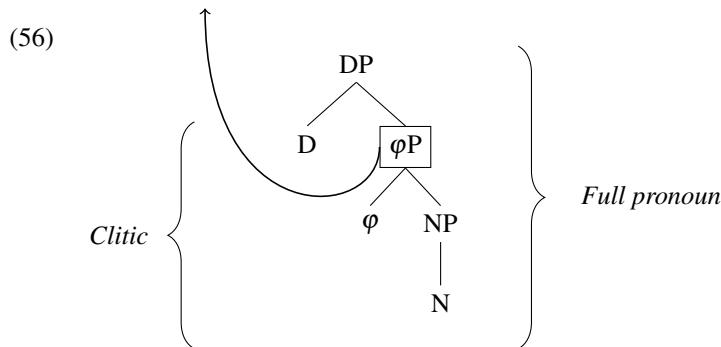
Table 3.2: Structural status of 2SG morphemes

|            | pro-DP                   | pro- $\phi$ P                                                                        | pro-NP                                                                  |
|------------|--------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Frisian    | <i>do</i>                | <i>de</i> , <span style="border: 1px solid black; padding: 0 2px;"><i>-st</i></span> |                                                                         |
| Limburgian | <i>doe</i> , <i>dich</i> | <i>de</i> , <i>-se</i>                                                               | <span style="border: 1px solid black; padding: 0 2px;"><i>-s</i></span> |

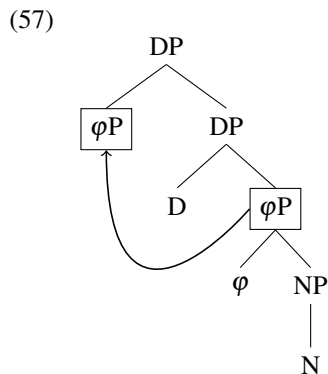
<sup>21</sup>As can be seen in the table, there are several instances where there are two different morphemes that have the same structural status. In the case of pro- $\phi$ P in Frisian and Limburgian, this appears to be the result of allomorphy: *de* (in both Frisian and Limburgian) is used in pre-verbal contexts, and *-st* (Frisian) and *-se* (Limburgian) are used in post-verbal contexts, and when following a complementiser. The alternation between *doe* and *dich* in Limburgian cannot be treated this way, because these forms are both used pre- and post-verbally and following complementisers. Instead, what appears to be relevant here is that *dich* is the accusative 2SG pronoun. Its use in nominative contexts is thus an example of a more common pattern in varieties of Dutch where the accusative pronoun is also used for nominative case (see e.g. van Bergen et al., 2011 for the same phenomenon with 3PL pronouns in colloquial Dutch, and the DynaSAND for examples with the 1PL pronoun in Zeeland Dutch). Why this happens, and whether *doe* and *dich* are truly in free variation, is a matter that is outside of the scope of this chapter.

### 3.4.3 Analysing the intervention effects

Having established the structural status of the CA morphemes in Frisian and Limburgian, we can now proceed with the analysis of CA as clitic doubling in these varieties. Recall that the analysis of clitic doubling by van Craenenbroeck and van Koppen (2008), adopted here, is that clitic doubling is partial copying and subsequent double spell out of the pronoun, schematically represented in (52), repeated below.



A crucial component of the analysis is that movement takes place: this enables double spell out of the clitic and the pronoun. This raises several questions, though. First, extraction from subject is barred by the Subject Condition (Chomsky, 1973), meaning that the movement operation depicted in (56) should be blocked from the subject position.<sup>22</sup> To resolve this issue, movement has to apply within the DP, as in (57) (cf. van Craenenbroeck and van Koppen, 2018).

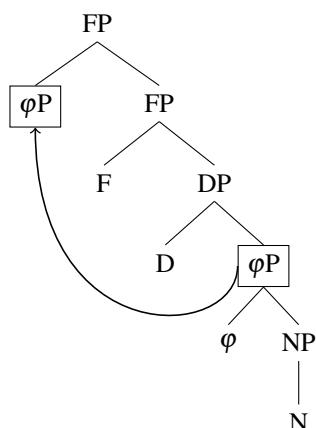


The configuration in (57) introduces another issue, as it involves movement of a Complement to the Specifier of the same phrase. This has been argued to be an illicit

<sup>22</sup>Van Craenenbroeck and van Koppen (2008) claim that the Subject Condition is not violated because the two movements are part of a single movement chain, where each movement step (for them movement of the full subject to Spec,TP, and movement of the clitic substructure to Spec,FinP) is triggered by a separate Probe. It is not exactly clear to me, however, how this voids the problem of extraction from a derived position. Van Craenenbroeck and van Koppen (2018) seem to agree and assume DP-internal movement instead, as I do here.

movement step, because it is too local (Abels, 2003). Van Craenenbroeck and van Koppen (2008) are aware of these issues,<sup>23</sup> and in later work (van Craenenbroeck & van Koppen, 2019) they propose that there is an additional functional layer (FP) on top of the DP. The clitic can move to this projection without violating anti-locality or the Subject Condition, as in (58) (a similar idea can be found in Béjar and Rezac, 2003, who argue for a multi-purpose FP under which strong pronouns are embedded).

(58)



The idea that pronominal DPs have an extended left periphery in the form of the FP finds empirical support when we look at subject modification by focus particles: a simple constituency test using V2 shows that a focus particle forms a constituent with the pronominal subject when it attaches to the left of it (59, 60a). Focus particles can only attach to pro-DP pronominal subjects (60b). These observations fall into place easily under the proposal that there is a FP layer dominating the DP: the extra functional layer houses the FP and allows focus particles to form a constituent with the subject, but this is only possible when the subject is projected up to the DP level and are therefore pro-DPs, because FP projects on top of DP.<sup>24</sup>

- (59) Sels do moastst dy noait fan in faam belêze litte.  
 even you.NOM must.2SG you.ACC never of a girl lecture let  
 ‘Even you should never let yourself be lectured by a girl.’  
 Frisian (E. Hoekstra, 2020c)

- (60) a. Auch doe uts waal ens vegetarisch.  
 also you eat.2SG sometimes vegetarian  
 ‘You, too, sometimes eat vegetarian.’  
 b. \* Auch de / se uts waal ens vegetarisch.  
 also you / you eat.2SG sometimes vegetarian  
 ‘You, too, sometimes eat vegetarian.’  
 Limburgian

<sup>23</sup>They mention the anti-locality violation in a footnote of a manuscript version of their 2008 paper.

<sup>24</sup>Following Cinque (1999), I assume adjunction (of the focus particle to DP) not to be an option.

Barbiers (2010) identifies two types of focus particles in standard Dutch (61). Class I particles are heads, whereas class II particles are phrases. Only particles of class II can attach to the left of a pronominal argument to form a constituent with it; attempting to do this with class I particles leads to strong ungrammaticality, as illustrated in (62).<sup>25</sup> While the exact inventory of particles may differ across varieties, I assume that all particles that attach to the left of pronouns are phrasal. More precisely, I propose that all particles exhibiting this behaviour reside in Spec,FP.

- (61) a. Class I: *maar* ('only'), *wel* (positive polarity particle), *al* ('already')  
 b. Class II: *zelfs* ('even'), *ook* ('also'), *alleen* ('only')
- (62) a. *Zelfs / alleen / ook jij bent vegetariër.*  
 even / only / also you are vegetarian  
 'Even / only / also you are a vegetarian.'  
 b. \**Maar / wel / al jij bent vegetariër.*  
 only / PTCL / already you are vegetarian  
 'Only / indeed / already you are a vegetarian.' Dutch

With this background in place, we can turn to deriving the different patterns of intervention effects on CA. Starting the discussion by looking at Frisian, recall that intervention leads to ungrammaticality (63) (examples repeated from (3, 5)). Furthermore, as argued in the previous section, the Frisian CA morpheme is a pro- $\phi$ P.

- (63) a. *dat-st-o [...] fegetarysk ytst.*  
 that-2SG-you vegetarian eat.2SG  
 'that you eat vegetarian'  
 b. \**dat(-st) ek do [...] fegetarysk ytst.*  
 that-2SG also you vegetarian eat.2SG  
 'that you, too, eat vegetarian'  
 c. \**dat(-st) helaas ek do gjin priis wûn hast.*  
 that-2SG unfortunately also you no prize won have.2SG  
 'that you unfortunately also didn't win a prize.' Frisian

Let us start with the derivation of (63a), where there is no intervention between the complementiser and the subject. I assume that clitic doubling is triggered by Agree between the subject DP and the C head (see Preminger, 2009; Kramer, 2014; Baker and Kramer, 2018; Preminger, 2019, among others, for Agree as underlying to clitic doubling; and see Chapter 2 for evidence that C triggers Agree in varieties of Dutch and Frisian). In Frisian and Limburgian, the Agree relation between the subject and C does not lead to the presence of agreement morphology, but just to clitic doubling. In other varieties, such as West Flemish, both agreement and clitic doubling can be realised. This is illustrated (64).

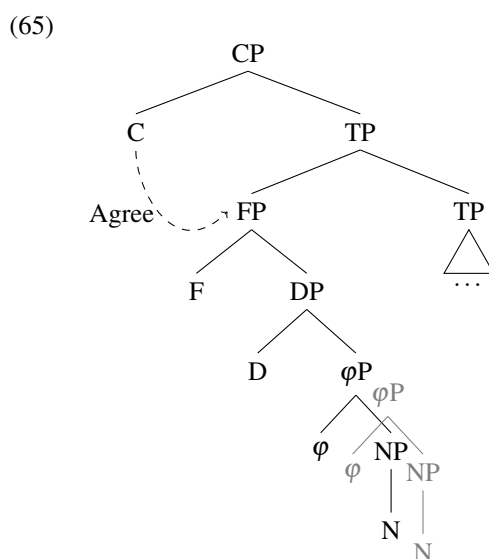
<sup>25</sup>*Maar jij bent vegetariër* is grammatical under the (non-intended) reading where *maar* is a coordinating conjunction ('but').



- (64) da-n-k            ik werken.  
       that-1SG-I<sub>clitic</sub> I work.1SG  
       'that I work.'

West Flemish (Haegeman, 1990, p. 334)

When clitic doubling is triggered, part of the structure of the pronoun is duplicated. This is illustrated in (65), where the duplicated clitic structure is in grey.<sup>26</sup>

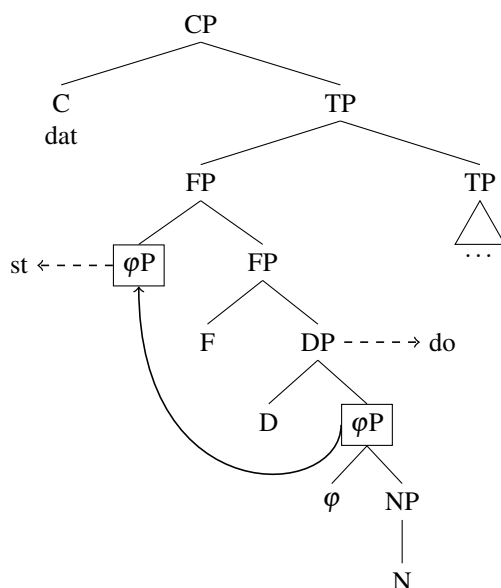


The duplicated clitic structure subsequently has to move to its own position in the syntactic structure, by being attracted by the Probe. Because the subject is an island, the clitic cannot move all the way up to the Probe; instead, it is stranded inside of the subject FP. I assume that the clitic moves as close to the Probe as possible, i.e. to Spec,FP. The clitic is then spelled out in Spec,FP, and the DP is spelled out as the full pronoun. This is illustrated in (66); the  $\phi$ P clitic moves to Spec,FP. Because the subject is adjacent to the complementiser, the CA morpheme can cliticise to the complementiser after linearisation, giving the appearance of complementiser agreement when the structure is spelled out.

<sup>26</sup>I assume that the portion of the structure that is doubled is  $\phi$ P in Frisian, and NP in Limburgian (see below). I must leave the question of why this is the case for future research.

- (66) a. dat-st-o [...] fegetarysk ytst.  
 that-2SG-you vegetarian eat.2SG  
 'that you eat vegetarian'

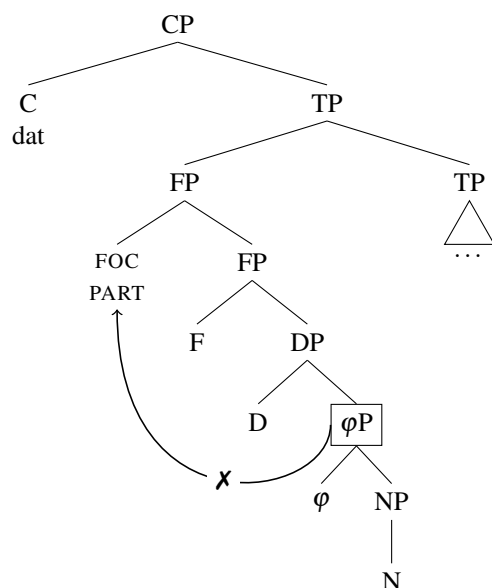
b.



A focus particle that intervenes between the complementiser and the subject sits in Spec,FP. When C Agrees with the subject in this case,  $\varphi$ P is doubled, but there is no position for  $\varphi$ P to move to, as illustrated in (67): movement to Spec,DP is an instance of movement of the Complement to the Specifier of the same phrase, and is therefore too local; and movement out of the subject violates the Subject Condition. I propose that this is the reason behind the ungrammaticality of (63b): the syntactic structure contains a duplicate clitic structure that has to move to a position in the phrase marker, but every type of movement of the clitic structure violates a grammatical principle. This causes the structure to crash, and results in the ungrammaticality of intervention between a complementiser and a 2SG subject in Frisian.

- (67) a. \* dat(-st) ek do [...] fegetarysk ytst.  
 that-2SG also you vegetarian eat.2SG  
 ‘that you, too, eat vegetarian’

b.

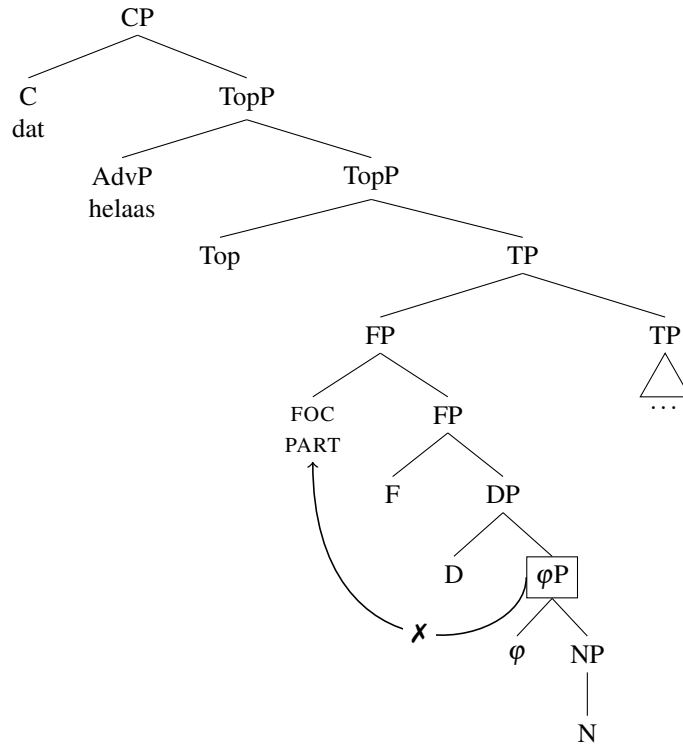


If the intervener consists of a focus particle and a fronted object or adverb, ungrammaticality is derived in the same way as in (67): when clitic doubling is triggered by Agree between C and the subject, the  $\varphi$ P clitic tries to move to Spec,FP, but this position is already occupied by the focus particle, illustrated in (68).<sup>27</sup> The structure cannot be spelled out without violating some grammatical principle, resulting in ungrammaticality.

<sup>27</sup>I assume that the adverb is fronted to a separate projection, here called ‘TopP’, but not much hinges on this.

- (68) a. \*dat(-st) helaas ek do gjin priis wûn hast.  
 that-2SG unfortunately also you no prize won have.2SG  
 ‘that you unfortunately also didn’t win a prize.’

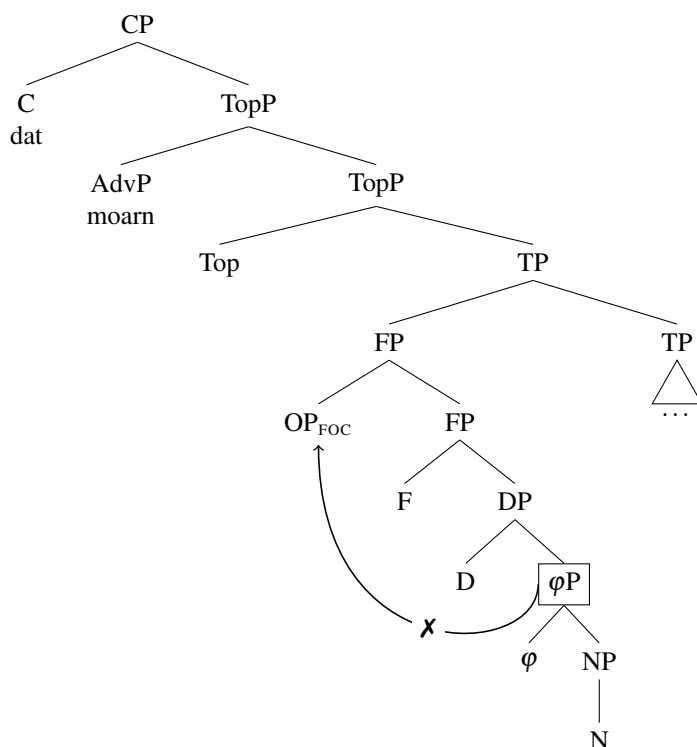
b.



Intervention that does not involve a focus particle also leads to ungrammaticality in Frisian ((7), repeated as (69a)). As J. Hoekstra (2014) points out for Frisian (see also Neeleman and Van de Koot, 2008 on Dutch), intervention between a complementiser and a subject always requires the subject to be focus. I therefore assume that although no overt focus particle is present, there is still a covert focus operator in Spec,FP. The focus operator plays exactly the same role as an overt focus particle; it ensures that the subject is focus, and crucially, it blocks movement to Spec,FP. When clitic doubling is triggered through Agree between C and the subject, movement of the  $\varphi$ P clitic to Spec,FP cannot take place, and there is no other position that the clitic can move to without violating anti-locality or the Subject Condition. This causes the structure to be ungrammatical (69b).

- (69) a. \*Hy leaude dat(-st) moarn do komme soest.  
 he believes that-2SG tomorrow you come should.2SG  
 ‘He believed that you should come tomorrow.’ (Fuß, 2008, p. 85)

b.



We now turn to the derivation of the intervention effect in Limburgian. In this variety, the CA morpheme attaches to the focus particle under intervention (70) (examples repeated from (13, 14)). As demonstrated in the previous section, the CA morpheme is a pro-NP.

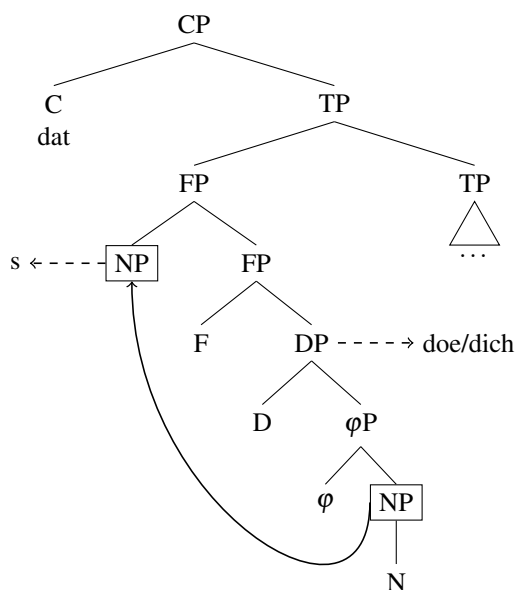
- (70) a. dat-s-tich de westrijd geis winne.  
 dat-2SG-you the game go.2SG win  
 ‘that you are going to win the game.’  
 b. dat auch-s-tich waal ens vegetarisch uts.  
 that also-2SG-you sometimes vegetarian eat.2SG  
 ‘that you, too, sometimes eat vegetarian.’  
 c. dat zo’n boek allein(-s)-tich in ’t openboar lus.  
 that such.a book only-2SG-you in the public read.2SG  
 ‘that only you would read such a book in public.’ Limburgian

When C Agrees with a 2SG subject in a sentence without intervention between the complementiser and the subject, the NP part of the subject is doubled. NP can move to

Spec,FP, where it undergoes spell out and cliticisation to the complementiser, leading to CA.<sup>28</sup> This is depicted in (71).

- (71) a. dat-s-tich de westrijd geis winne.  
 dat-2SG-you the game go.2SG win  
 'that you are going to win the game.

b.

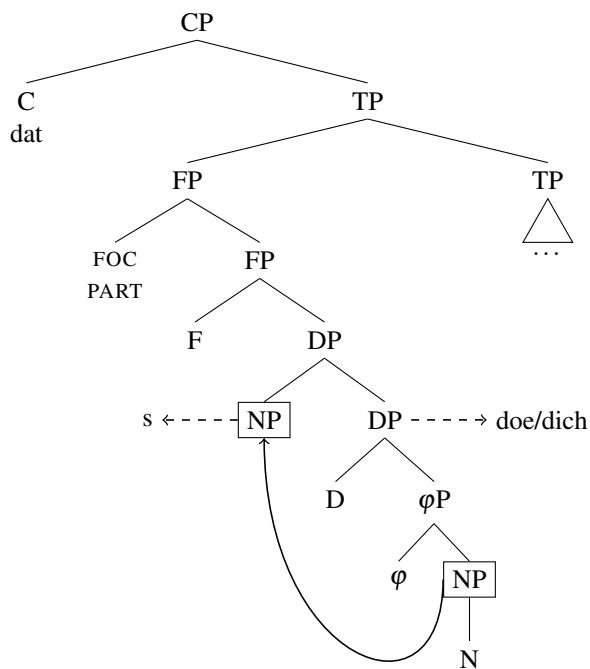


When a focus particle intervenes between the subject and the complementiser, it occupies Spec,FP. When the subject is clitic doubled, the NP clitic cannot move to Spec,FP anymore. Like in Frisian, the clitic cannot move out of the subject, because of the Subject Condition. However, Frisian and Limburgian crucially differ in the structural size of the CA morpheme: in Limburgian, the CA morpheme is a pro-NP, whereas in Frisian, it is a pro- $\phi$ P. As a consequence, movement of the clitic to Spec,DP is possible in Limburgian, because it crosses a phrase boundary, and therefore does not violate anti-locality (72). When the structure is spelled out, the clitic is realised subject internally, and cliticises to the left of the first element it finds, which is the focus particle.

<sup>28</sup>NP could also move to Spec,DP. Although not much hinges on this, I assume it moves to Spec,FP to keep uniformity with the other varieties, and because it intuitively makes sense that the clitic moves as close to its movement trigger (C) as possible.

- (72) a. dat auch-s-tich waal ens vegetarisch uts.  
 that also-2SG-you sometimes vegetarian eat.2SG  
 ‘that you, too, sometimes eat vegetarian.’

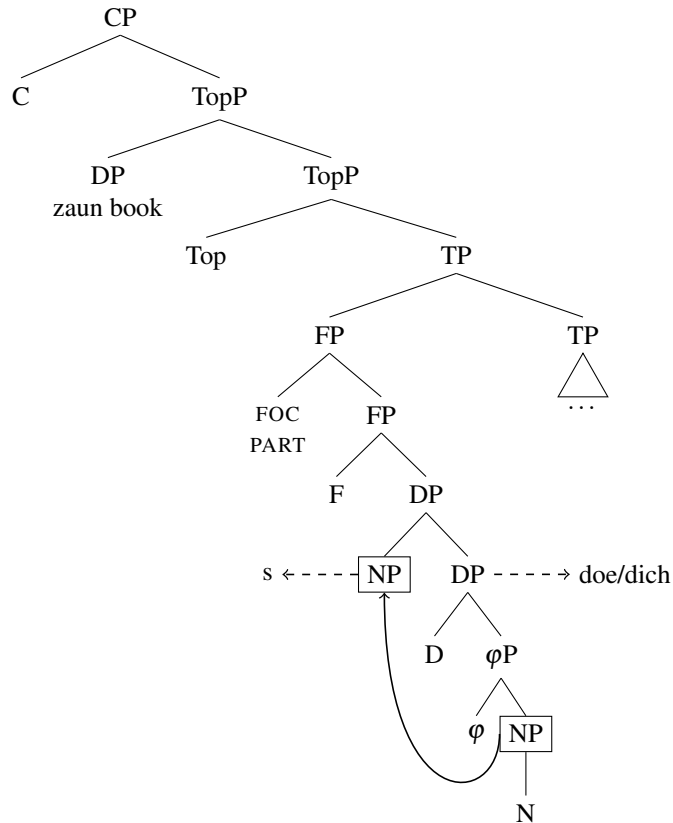
b.



In a sentence where the intervening material consists of a fronted element and a focus particle, the derivation of CA works the same: because the focus particle is in Spec,FP, it blocks movement of the clitic all the way to the left of the extended projection of the subject. Instead, the clitic moves to Spec,DP, and is realised to the right of the focus particle, as illustrated in (73).

- (73) a. dat zaun book allein-(s)-tich in 't openboar lus.  
 that such.a book only-2SG-you in the public read.2SG  
 'that only you would read such a book in public.'

b.



To summarise, this section illustrated how treating the CA morpheme as a clitic accounts for the intervention effects on CA in Frisian and Limburgian, using van Craenbroeck and van Koppen (2008)'s analysis of clitic doubling, combined with the Subject Condition and anti-locality. In Frisian, intervention leads to ungrammaticality, which I argued is because the clitic targets the same position as the intervening focus particle. This causes the structure to crash. In Limburgian, intervention causes the CA morpheme to be realised on the intervening focus particle, which follows under the clitic doubling account if the clitic moves to a position below the focus particle. The difference between Frisian and Limburgian is due to the differing structural size of the clitics in these varieties.

An important implication of the analysis is that clitic doubling is a two-step process, of which both steps can fail, with different outcomes as a result. The first step is the creation of the clitic double (as the result of Agree), and the second step is movement of the double to a position where it can be spelled out. That the first step can fail



has been demonstrated by Preminger (2014): when the Agree relation that precedes clitic doubling fails, this does not result in a crash of the derivation, but simply in the absence of clitic doubling (see also the discussion in section 3.3). I showed that in Frisian, step two of clitic doubling fails, i.e. the subject is successfully targeted by Agree and a clitic double is created, but the clitic fails to move, because there is no position it can move to. This results in ungrammaticality, because either the clitic moves and by doing so violates the Subject Condition or anti-locality, or the clitic does not move, in which case it cannot be spelled out.

### 3.5 Other configurations for complementiser agreement

In this section, I look at other configurations for complementiser agreement. I first look at a case that is potentially problematic for the clitic doubling analysis of CA, namely first conjunct complementiser agreement. I argue that first conjunct complementiser agreement in Frisian is only apparent, and that it results from clausal coordination. Next, I look at CA with subject relatives and CA with extracted subjects, and I show that the clitic doubling analysis of CA allows for a straightforward understanding of these phenomena.

#### 3.5.1 Complementiser agreement with coordinated subjects

Many varieties with CA also allow the complementiser to agree with the first conjunct of a coordinated subject. An example from Frisian is given below:

- (74) dat-st [do en Marie] dit wykein yn Rome west ha.  
 that-2SG you and Marie this weekend in Rome been have  
 ‘that you and Marie have been to Rome this weekend.’  
 Frisian (van Koppen, 2006, p. 126)

First conjunct complementiser agreement (FCCA) is potentially problematic for a clitic doubling analysis of CA, because of the coordinate structure constraint: movement from one of the conjuncts should be excluded (see also Paparounas and Salzmann, to appear, who address this problem in more detail). In this section, I will look at FCCA in Frisian, and argue that Frisian does not have real FCCA. Instead, what appears to be FCCA, is in fact agreement with the subject of the first conjunct of a coordinated TP that has undergone deletion to make it look like a coordination of nouns. This accounts for some special properties of FCCA in Frisian in terms of semantics and its distribution. I also show that the clausal coordination as underlying to FCCA is not restricted to Frisian, but is found in Polish as well.

As demonstrated in section 3.2.4 and in (74), the Frisian complementiser can agree with the first conjunct of a coordination. However, first conjunct agreement (FCA) in Frisian is restricted to complementisers; verbs can only agree with the whole coordination, but not with the first conjunct, as illustrated in (75).

- (75) \*Hast [do en Marie] dit wykein yn Rome west?  
 have.2SG you and Marie this weekend in Rome been  
 ‘Have you and Marie been in Rome this weekend?’  
 Frisian (van Koppen, 2006, p. 128)

Next to the C-V asymmetry for FCA, another special property of FCCA in Frisian is that it has an effect on interpretation. As illustrated in section 3.2.4, for most speakers, FCCA triggers a two-event reading of the sentence, whereas the absence of complementiser agreement triggers a one-event reading. The relevant examples are repeated in (76).

- (76) a. Ik tink dat-st-o 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)
- b. 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)

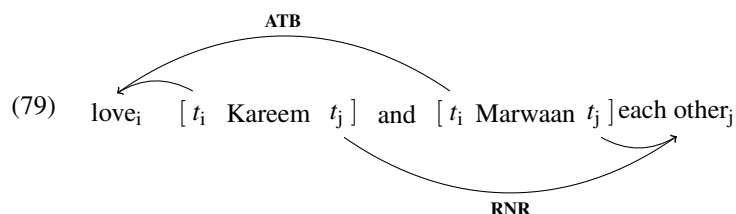
This interpretative effect is reminiscent of data reported for varieties of Arabic, and Polish, in relation to FCA. In particular, it has been shown that FCA on verbs in these languages is incompatible with number sensitive items, such as *together*, and reciprocals (Aoun et al., 1994; Citko, 2004). This is illustrated for Lebanese Arabic in (77) and for Polish in (78). The similarity to the Frisian data is that in all cases that show FCA, the subject does not behave like a semantic plurality, leading to ungrammaticality with number sensitive items in Lebanese Arabic and Polish, and a two-event reading of the predicate in Frisian.

- (77) a. \*Bihibb Kariim w Marwaan baʕḍun.  
 love.3SG Kareem and Marwaan each.other  
 ‘Kareem and Marwaan love each other.’
- b. Bihibbo Kariim w Marwaan baʕḍun.  
 love.3PL Kareem and Marwaan each.other  
 ‘Kareem and Marwaan love each other.’  
 Lebanese Arabic (Aoun et al., 1994, p. 214)

- (78) a. \*Do pokoju razem weszła Maria i Jan.  
 to room together entered.SG Maria and Jan  
 ‘Maria and Jan entered the room together.’
- b. Do pokoju razem weszli Maria i Jan.  
 to room together entered.PL Maria and Jan  
 ‘Maria and Jan entered the room together.’ Polish (Citko, 2004, p. 93)

Based on the observation in (77) and similar data, Aoun et al. (1994, 1999) propose that FCA in Arabic comes about as a result of coordination of TPs, combined with

conjunction reduction, which causes everything but the subject to move or delete. This yields a structure that looks like a coordination of NPs. The verb agrees with the subject of the first clause, giving the impression of FCA. The structure that Aoun et al. propose is given in (79).



(cf. Aoun et al., 1999, p. 669)

In (79), the verb undergoes ATB-movement from both conjuncts, moving it to a position preceding the coordination. The remaining material (here: the reciprocal) undergoes Right Node Raising (RNR) to the right of the clause. This analysis explains why examples like (77) are ungrammatical, because they are derived from a coordination of ungrammatical clauses such as \**Kareem loves each other* and \**Marwaan loves each other*.

This analysis has received a lot of critique. Munn (1999) and Citko (2004) argue that the diagnostic based on number sensitive items does not hold up for theoretical and empirical reasons. For instance, Munn argues that it is not syntactic plurality that plays a role in licensing number sensitive items, but semantic plurality; for this reason, number sensitive items do not tell us much about syntactic structure. Furthermore, Citko (2004) shows that the clausal analysis requires that the identity requirement on ATB-movement is violated in examples such as (80a). According to the clausal analysis of FCA, (80a) is derived from (80b). The verb undergoes ATB-movement as in (79), but this should be blocked because the two verbs that move are non-identical, (incorrectly) ruling out example (80a).<sup>29</sup>

- (80) 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.'
- Polish (Citko, 2004, p. 94)

While these criticisms are warranted, they are not fatal for the general idea of analysing FCA as resulting from clausal coordination. In particular, a context that does

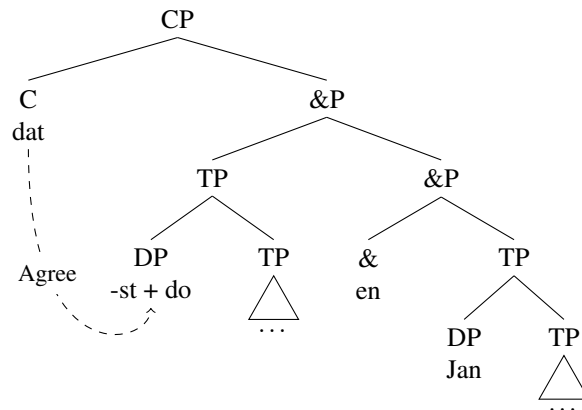
<sup>29</sup>It has been demonstrated that in some cases, non-identical verbs can undergo ATB-movement (see e.g. An, 2006; Salzmann, 2012), potentially weakening Citko (2004)'s argument; all relevant examples seem to involve auxiliary verbs, however, so it is not clear whether the same holds for ATB-movement of lexical verbs as would be required in (80a)—I leave this for further research.

not require ATB-movement from the conjuncts does not fall afoul of violating the identity requirement on ATB-movement. And while number sensitive items do not constitute good testing grounds for assessing if FCA results from clausal coordination, the clausal coordination analysis still leads to the expectation that there is a strong preference for a two-event reading because the structure contains two clauses, as Nevins and Weisser (2019) point out.

Incidentally, FCCA in Frisian meets exactly these requirements. First, because we are dealing with CA, movement from the coordinated clauses (TPs) is not necessary; rather, the agreeing element (C) is external to the coordination of TPs. Second, as already demonstrated, the preferred interpretation for clauses with FCCA in Frisian is a two-event reading. I therefore propose that Frisian FCCA is the result of clausal coordination, instead of a coordination of NPs, where the complementiser Agrees with the subject of the first clausal conjunct, because it is the first subject within its c-command domain. This triggers clitic doubling of that subject, giving the appearance of FCA. The structural configuration for FCCA is given in (81).

- (81) a. Ik tink dat-st-o 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.'

b.

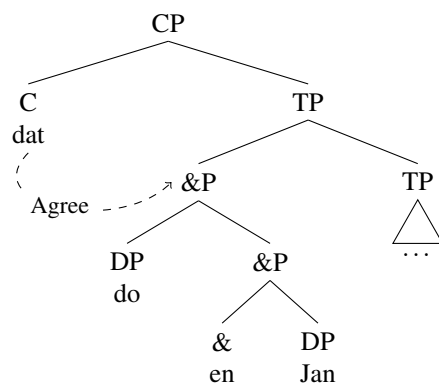


Of course, the equivalent of this structure with a coordination of NPs is also possible; in that case, the complementiser Agrees with the whole coordinated subject, leading to the absence of CA.<sup>30</sup> The structural configuration is given in (82). Adopting the clausal analysis of FCA (in addition to the nominal coordination analysis) thus gives us a means to explain the optionality of FCCA.

<sup>30</sup>There are languages in which the first conjunct of a nominal coordination can be the Goal for Agree, such as Polish (see below), but Frisian is not one of them, as the absence of FCA on verbs indicates.

- (82) 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.’

b.



In addition, the clausal analysis explains the asymmetry between verbs and complementisers in terms of FCA. FCA in Frisian is possible only with clausal coordination. To derive (83a) (repeated from above), where the verb shows FCA, the verb would need to undergo ATB-movement from the clausal conjuncts to a higher position. But as (83b) illustrates, the full structure contains non-identical verbs. ATB-movement of the verb is excluded because it violates the identity requirement on ATB-movement.

- (83) a. \*Hast [do en Marie] dit wykein yn Rome west?  
 have.2SG you and Marie this weekend in Rome been  
 ‘Have you and Marie been in Rome this weekend?’  
 (van Koppen, 2006, p. 128)
- b. Hast do dit wykein yn Rome west en hat Marie dit wykein  
 have.2SG you this weekend in Rome been and has.3SG Marie this weekend  
 yn Rome west?  
 un Rome been?  
 ‘Have you been in Rome this weekend and has Marie been in Rome this weekend?’

A remaining question is how we should deal with agreement on the verb in clauses with FCCA. In all examples we have seen so far, both conjuncts contain a singular subject, but the verb is always plural. Recall that according to the clausal analysis of FCA, all material except for the subject is evacuated from the clausal conjuncts, either by ATB-movement or by RNR. This means that in sentences with FCCA, the embedded verb undergoes RNR. It has been shown that languages vary in how verbal agreement is resolved under RNR (Grosz, 2015; Shen, 2019): either the verb agrees with the subject of both conjuncts (summative agreement), or the verb agrees with the subject of the closest conjunct (distributive agreement).<sup>31</sup> Frisian falls in the first class of languages: the verb shows summative agreement in RNR contexts, such as (84); in this

<sup>31</sup>See Shen (2019) for a proposal on how these different resolution strategies come about.

context, the biclausal structure is forced by the presence of the second complementiser ‘dat’. Plural agreement on the verb in structures with FCCA is therefore exactly what is predicted, and what we find, see (85).

- (84) 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.’
- (85) Ik tink dat-st-o 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.’

The clausal coordination analysis of FCCA combined with language-dependent agreement resolution under RNR also provides insight into an intriguing pattern of FCCA and verbal agreement in Polish. Citko (2018) shows that the Polish conditional complementiser shows obligatory agreement with the subject, illustrated below:

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

If the subject is a coordinated subject, there are three possible outcomes of CA and verbal agreement. First, both the verb and the complementiser agree with the whole coordination, and show resolved agreement (87a). Second, the complementiser agrees with the first conjunct (FCCA), but the verb agrees with the whole coordination and shows resolved agreement (87b). Finally, the complementiser agrees with the first conjunct, and the verb agrees with the last conjunct of the coordinated subject (87c); this is also referred to as ‘sandwiched’ agreement. It is impossible to have complementiser agreement with the whole coordination, but last conjunct agreement (LCA) on the verb. In other words, verbal LCA is parasitic on FCCA.

- (87) 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.’
- 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.’  
 Polish (Citko, 2018, pp. 3–5)

In Citko (2018)’s analysis of these data, agreement with the whole coordination results from Multiple Agree (i.e. Agree that targets both conjuncts simultaneously), while closest conjunct agreement (both FCCA and verbal LCA) results from Singular Agree (i.e. each conjunct is targeted by an independent instance of Agree). Multiple Agree is spelled out as resolved agreement on the target, whereas Singular Agree leads

to agreement with the element that is linearly closest (cf. Bhatt & Walkow, 2013, for a similar approach).<sup>32</sup> Under this analysis, Multiple Agree and Singular Agree are essentially in free variation. The patterns in (87) are then derived as follows. First, when both the complementiser and the verb show resolved agreement, as in (87a), both undergo Multiple Agree. Second, when the complementiser agrees with the first conjunct of the coordinated subject, and the verb shows resolved agreement (87b), the complementiser undergoes Singular Agree, but the verb Multiple Agree. Finally, when both the complementiser and the verb show closest conjunct agreement (FCCA and verbal LCA, as in (87c), both undergo Singular Agree. This derives the attested patterns.

However, there is one more option available: the complementiser undergoes Multiple Agree, and the verb Singular Agree. The predicted pattern would be that the complementiser shows resolved agreement, but the verb with the last conjunct only. Crucially, this pattern is not attested. Citko provides some speculation on why this pattern is excluded, proposing that the less economical Singular Agree operation responsible for verbal agreement cannot be followed by the more economical Multiple Agree operation, responsible for complementiser agreement. This is not entirely satisfactory, however, as it raises the question of why the less economical Singular Agree operation would exist at all (in fact, Citko raises a similar point herself as well).

The patterns of CA and verbal agreement in Polish receive a straightforward explanation within the analysis outlined in this section, in particular the idea that embedded sentences with a coordinated subject can be derived by nominal coordination, or clausal coordination and RNR. If we are dealing with a real nominal coordination, the complementiser can agree with the whole coordination. Furthermore, the verb has to agree with the whole coordination, as it cannot agree ‘into’ a subject that it does not c-command. The result is (87a), where both the complementiser and the verb show resolved agreement.

If we are dealing with clausal coordination and RNR, the complementiser has to agree with the first conjunct; the subjects of the conjuncts do not form a constituent, so agreement with both is excluded. This results in FCCA. The question is then what happens to verbal agreement under RNR in Polish. Shen (2018, 2019) shows that, in contrast to e.g. Frisian, Polish shows distributive agreement under RNR, i.e. agreement with the linearly closest subject. This is illustrated in (88).

- (88) Jan myśli że Maria, a Bill wierzy że Sue, podróżowała / \*podrózowały  
 Jan thinks that Maria and Bill believes that Sue travel.SG.F / travel.PL.F  
 do Chin.  
 to China  
 ‘Jan thinks that Maria, and Bill believes that Sue, travelled to China.’  
 Polish (Shen, 2018, p. 221)

Given this observation, we predict that the verb shows distributive agreement also in cases of FCCA that are derived by clausal coordination, as this also involves RNR.

<sup>32</sup>According to Citko (2018), two instances of Singular Agree can also be resolved by syncretism, i.e. the independent feature values of both conjuncts lead to a syncretic agreeing form; I do not see how this can be distinguished from agreeing with the linearly closest conjunct.

And in fact, FCCA cooccurs with verbal LCA, or rather distributive agreement, in Polish (87c). Furthermore, as clausal coordination forces FCCA, this is the only context in which we expect to find verbal LCA. In other words, the dependence of verbal LCA of FCCA is successfully derived.

There is a third option where the complementiser shows FCA, and the verb agreement with the whole coordination. As I showed before, and in contrast to Frisian, Polish also allows FCA on verbs (89a); the variant where the verb agrees with the whole coordination is also grammatical (89b).

- (89) a. Do pokoju weszła młoda kobieta i chłopiec.  
to room entered.SG.F young woman and boy  
'Into the room walked a young woman and boy.'
- b. Do pokoju weszli kobieta i chłopiec.  
to room entered.PL woman and boy  
'Into the room walked a woman and boy.' Polish (Citko, 2004, p. 91)

Citko (2004) and Mendes and Ruda (2019) argue that verbal FCA in Polish cannot be analysed with a clausal coordination analysis (see also the arguments discussed earlier in this section). They conclude that Polish has 'real' FCA, meaning that the verb can agree with the first conjunct of a coordinated subject. I propose that this ability is not just restricted to verbs; complementisers can do the same. This is what happens in the final pattern of CA and verbal agreement in Polish (87b): the complementiser agrees with the highest conjunct of a nominal coordination. But since the verb is not in a position c-commanding the subject, nor does it undergo RNR, it can only agree with the whole coordination, resulting in FCCA and resolved verbal agreement.

To conclude, in this section I have argued for a reinstatement of the clausal analysis of FCA to account for (some instances of) FCCA. This analysis accounts for the Frisian complementiser-verb asymmetry, the interpretative effect of FCCA in Frisian, and for the interactions between agreement on complementisers and verbs in Polish.

### 3.5.2 Complementiser agreement with displaced subjects

#### 3.5.2.1 Complementiser agreement in subject relatives

In several varieties with CA, CA is not only found on the complementiser, but also the relative pronoun in subject relatives. This is illustrated with an example from Frisian in (90), repeated from (41).<sup>33</sup>

- (90) Do, dyt-st gjin siler bist  
you who-2SG no sailor are.2SG  
'You, who are not a sailor' Frisian (de Haan, 2010, p. 220)

CA in subject relatives is optional. As illustrated in (91), a subject relative can also occur without CA.

<sup>33</sup>In addition to CA in subject relatives, the relative pronoun in object relative also often shows CA, see e.g. the examples in (33). The current section focuses on subject relatives.



- (91) do dyt de wedstriid winne sil  
 you who the game win will.3SG  
 'you, who will win the game' Frisian

The examples in (90) and (91) differ on a further point: in (90), the verb shows 2SG inflection, whereas in (91), the verb shows 3SG (default) inflection. In addition to these two options, a subject relative without CA, but with 2SG inflection on the verb, is also possible, illustrated in (92). Crucially, what is not possible is 3SG inflection on the verb when the relative pronoun shows CA.

- (92) do dyt mem helpe wolste  
 you who mother help want.2SG  
 'you, who wants to help mother' Frisian (E. Hoekstra, 2020b)

This gap is strikingly similar to a pattern found in (standard) German subject relatives. In German subject relatives with a pronominal head noun, it is possible to double the head noun inside the relative clause (93a) (Ito & Mester, 2000; Trutkowski & Weiß, 2016). When the head noun is doubled, the verb has to agree with this noun; it cannot show 3SG default inflection. Doubling of the head noun is optional, and if there is no doubling, the verb can either agree with the head noun, as in (93b), or show 3SG default agreement (93c).

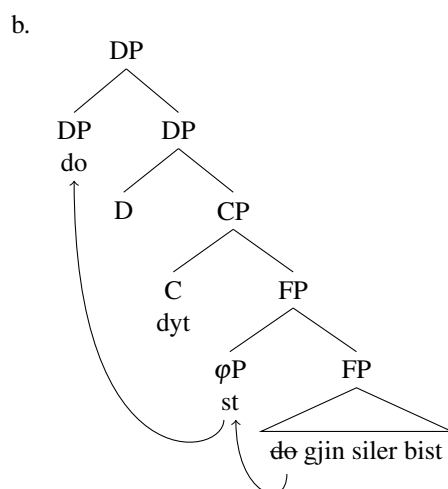
- (93) a. ich, der ich sechzig bin  
 I who I sixty am  
 'I, who am sixty'  
 b. ich, der sechzig bin  
 I who sixty am  
 'I, who am sixty'  
 c. ich, der sechzig ist  
 I who sixty is  
 'I, who is sixty'  
 German (Ito & Mester, 2000; Trutkowski & Weiss, 2016, pp. 136, 141)

The clitic analysis of CA allows us to treat pronoun doubling in German subject relatives and CA in Frisian subject relatives as the same phenomenon. According to the clitic doubling analysis of CA, the CA morpheme is a pronominal clitic. This means that in subject relatives with CA, a pronominal element is present. Just as in German, when a pronominal element is present as a double of the head noun of the relative clause, the verb has to agree with this element. The obligatory agreement of the verb with the head noun in the relatives with doubling can be understood if these relatives correspond to a head-internal relative clause structure (in line with the analysis by Trutkowski and Weiß, 2016).<sup>34</sup> In a head-internal relative clause, the verb and the subject head noun are part of the same clause, so they will agree with each other. Furthermore, the complete derivation involves movement of the head noun to a relative clause-external position. Trutkowski and Weiß (2016) propose that this movement

<sup>34</sup>Thanks to Anikó Lipták for suggesting this analysis to me.

proceeds through a position directly below C (here: FP). Doubling can then be understood as multiple spell-out of copies in movement positions, as illustrated in (94) (see Trutkowski and Weiß, 2016 for a more detailed analysis).

- (94) a. Do, dyt-st gjin siler bist  
 you who-2SG no sailor are.2SG  
 ‘You, who are not a sailor’ Frisian (de Haan, 2010, p. 220)



Both in German and Frisian subject relatives, presence of a doubled pronominal element is optional. If the pronominal element is absent, the verb can either agree with the head of the relative clause, or it can show 3SG agreement. If the verb agrees with the head noun, we can assume the same head-internal relative clause structure as for the examples with doubling, given in (94). The only difference is that the intermediate copy of the head noun is not spelled out, resulting in the absence of doubling. Finally, the relative clauses without doubling and with 3SG agreement on the verb correspond to a head-external relative clause structure. Because the head noun is external to the relative clause, the verb cannot agree with it (the verb and the head noun are not sufficiently local). Instead, the verb shows default 3SG agreement. Doubling is not possible in these relative clauses because there are no copies of the head noun inside the relative clause that can be spelled out.

To conclude, this section has shown that doubling in German subject relatives and CA in Frisian subject relatives can be treated as the same phenomenon, and that we can analyse the empirical patterns by treating the CA morpheme as a pronominal element.

### 3.5.2.2 Complementiser agreement with extracted subjects

In addition to CA with relativised subjects, some varieties also allow for CA with a subject that has been extracted. This is illustrated for Frisian in (95), repeated from (42) (see also Mayr, 2010 on CA with extracted subjects in Bavarian).

- (95) Do<sub>i</sub> tink ik dat-st t<sub>i</sub> moarn komme silst.  
 you think I that-2SG tomorrow come will.2SG  
 ‘You, I think, will come tomorrow.’ Frisian (de Haan, 2010, p. 220)

At first sight, CA with extracted subjects is unexpected from the clitic doubling perspective, according to which CA is a clitic that has undergone subject-internal copying and movement. The first problem is that the clitic should not be able to leave the subject at all, because of the Subject Condition. But even if there is a way around the Subject Condition, then clitic doubling of the subject should be excluded, because this would require movement from the copy of the subject that has itself moved to the higher clause.

When we look at the properties of extraction in Frisian, it turns out that the presence of pronominal features on the complementiser when the subject has been extracted falls out straightforwardly under the clitic doubling analysis of CA. In particular, J. Hoekstra (1991) shows that Frisian allows for the insertion of a resumptive pronoun in the extraction site of an extracted subject. This is illustrated in (96) with extraction of *wh*-phrases; the resumptive pronoun is the weak third person singular feminine pronoun *se*.

- (96) a. Wa miendest dat se dy skille hie?  
 who thought.2SG that she you called had  
 ‘Who did you think called you?’  
 b. Hokker famke miendest dat se dy skille hie?  
 which girl thought.2SG that she you called had?  
 ‘Which girl did you think called you?’ Frisian (J. Hoekstra, 1991, p. 70)

Given these data, it is likely that extraction of a 2SG pronoun can also co-occur with a resumptive pronoun in the extraction site. According to the clitic doubling analysis of CA, the CA morpheme is a pronominal element. This should then be able to function as a resumptive pronoun. According to this approach, the CA morpheme in (95) is not a doubled clitic, but a resumptive pronoun. In other words, because Frisian allows for resumption, we can explain the presence of CA with extracted subjects by treating the CA morpheme as a pronominal (resumptive) element.

### 3.6 Conclusion

This chapter looked at complementiser agreement (CA) in West Germanic, with a focus on intervention effects on CA in Frisian and Limburgian. In Frisian, the presence of an intervening element between the complementiser and the subject leads to ungrammaticality. In Limburgian, intervention causes CA to be realised on the intervener. Using novel data and data from the literature, I showed that these intervention effects are different from intervention effects in other varieties with CA, and that they are problematic for existing Agree and PF approaches to CA.

Based on a detailed study of the CA morpheme, I argued that the CA morpheme is not an agreement affix, but a doubled pronominal clitic. I then showed how the intervention effects in Frisian and Limburgian follow from this conclusion. I adopted

the approach to clitic doubling by van Craenenbroeck and van Koppen (2008), who propose that clitic doubling is partial copying of a phrasal pronoun. I proposed that when the clitic has been doubled, it has to move to be spelled out, but that movement of the clitic is restricted by the Subject Condition and anti-locality. In Frisian, there is only one structural position that meets the requirements imposed by these conditions. When an intervening element is present, this element occupies exactly that position. Because there are two elements competing for the same structural position in Frisian, intervention leads to ungrammaticality. In Limburgian, the clitic is structurally smaller than in Frisian, and for this reason there is an additional structural position that the clitic can move to. If an intervener is present, the clitic moves to this additional position below the intervener, which causes the clitic to be spelled out to the right of the intervener, instead of on the complementiser. The clitic analysis of the CA morpheme thus allows for uniform treatment of the different intervention effects in Frisian and Limburgian. Finally, I showed that the clitic analysis gives us insight into (what looks like) CA in different contexts, such as subject relatives and subject extraction contexts.

The analysis of CA in Frisian and Limburgian has several implications. The first is empirical and relates to *pro*-drop. By treating the CA morpheme as a clitic, I reanalysed cases of *pro*-drop licensed by the CA morpheme as not involving *pro*-drop at all; instead, I proposed that the CA morpheme itself is the pronoun in these contexts. This reanalysis fits well with generalisations about other partial *pro*-drop languages, that tend to show a participant-based split when it comes to which pronouns can be dropped. Interestingly, in Koeneman and Zeijlstra (2019)'s empirical overview of *pro*-drop languages, the only languages that have partial *pro*-drop in a single cell in the paradigm, specifically for 2SG, are continental West Germanic languages (such as Frisian and different Alemannic dialects). It seems possible that all these examples involve a 2SG morpheme that is a pronominal clitic, instead of an affix. A first indication is that Koeneman and Zeijlstra (2019) observe that all these examples involve an agreement marker that is tense-invariant, which I took as a property of clitics, following Nevins (2011). If correct, then the typology of partial *pro*-drop can potentially be restricted to participant-based splits, meaning that partial *pro*-drop of random cells in the paradigm does not exist.

A second implication of my analysis is that it demonstrates that the operation responsible for clitic doubling consists of two steps: copy and move. Crucially, both steps can independently fail, leading to different outcomes. Failure of copying is discussed by Preminger (2009), and leads to the absence of a clitic, but not to ungrammaticality. In this chapter, I showed that movement can also fail. In particular, in Frisian CA contexts with intervention, the CA clitic can be copied, but it cannot move without violating a syntactic constraint. As a result, the structure is ungrammatical. Frisian is not the only language in which failure of movement of a clitic leads to ungrammaticality. In their account of the Person Case Constraint, Coon and Keine (2021) argue that some combinations of clitics are ungrammatical because two clitics are created, but cannot both successfully move (see also Chapter 2, section 5). The finding that failure of clitic movement is found in multiple languages and grammatical contexts provides further support for the idea that clitic doubling is a two-step operation.

