Topics in Dutch imperatives

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Master thesis Linguistics: the study of the language faculty

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July 2017

Abstract

This thesis investigates morphosyntactic microvariation in Dutch imperatives, with a focus on topicalization in imperatives (TII) (e.g. *dat doe maar* lit. “that do PRTC”). The empirical basis of the study is formed by new data on TII and related morphosyntactic properties collected from 10 Dutch dialects, and by data from dialect corpora. The analysis of TII focusses on two aspects, namely the option of TII, and the patterns of elements that can topicalize in TII. It will be argued that the option of TII can be accounted for by the interaction of the dialect type (in the sense of Postma 2011) and the presence of ablaut in the present tense verbal paradigm. Furthermore, it will be shown that variation in the elements that can topicalize in the different dialects can be reduced to three descriptive parameters, and a syntactic explanation for the existence of those parameters will be proposed.

Acknowledgements

Almost a year ago, Sjef Barbiers “handed over” the topic of topicalization in imperatives to me. Had I known that it would keep me busy for all this time! I am very grateful for Sjef’s supervision during my internship and thesis. The meetings with him greatly contributed to the development of the content of this thesis. I thank my UU supervisor Norbert Corver for his very concrete and to-the-point advice and suggestions. Finally, I would like to thank Marjo van Koppen, as her supervision and practical help during the preparing stages of this thesis really gave me a head start on this project.

This thesis would not have existed without the many informants that were willing to participate in my interviews (and the people who brought me in contact with them). I am very grateful for their time, hospitality and support (and for filling my bookcase with books written in and about their dialects!). It was quite an adventure to visit all these far corners of the Netherlands, completely losing my sense of grammaticality of imperatives on the way.

Writing a thesis is essentially a solitary task. However, the presence of my fellow linguists-to-be in “the basement” made sure this was far from a lonely enterprise and one of the main motivations to be there from nine to five every day again. It was great to share research progress and procrastination, funny habits, future worries (that turned into future excitement!), long lunch breaks and (not to mention) acknowledgement fun with all of you.

At least equally important to making my thesis life a lot better was the company of the girls from my BA in Dutch. Thanks a lot for always being there for me, and for all the well-deserved vrijmibo’s, latte macchiato breaks, dinners and nights out. A special thank you goes to Milou, for struggling herself through my whole thesis proofreading it.

Last but not least, I wish to thank my mom and the rest of my family, for being my favorite unofficial informants and for your unconditional support in my linguistics-business.

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1. Introduction

1.1. Topicalization in imperatives

This thesis focusses on syntactic microvariation in Dutch imperative clauses – specifically topicalization in imperatives (TII). TII is the phenomenon where a constituent is fronted to first position in the imperative clause, without an intonational break between the fronted element and the rest of the clause. Whereas in Standard Dutch, TII is ungrammatical, it occurs in Eastern Dutch dialectal varieties. Some examples are given in (1).

(1) a. Dat doe maar niet! — Eastern Dutch
that do PRTC not
"Don't do it"

b. Dan ga maar naar huis! — Eastern Dutch
then go PRTC to house
"Then go home"

TII in Eastern Dutch appears to be subject to restrictions with respect to the elements that can topicalize (Barbiers 2013). This in contrast to German, where all elements can topicalize in imperatives (Barbiers; Schulting 2014 for empirical confirmation). Hence, the Eastern Dutch region seems to be a transition area between Dutch and German. Furthermore, TII appears to require the presence of a focus marker like *maar* "only".

Despite constituting a major syntactic deviation from the standard language, TII has not received much attention in the descriptive or generative literature.[1] The first major inquiry into the phenomenon was conducted for the SAND project, a large-scale project that collected oral data of various syntactic variables in 267 locations in the Dutch language area (Barbiers *et al.* 2006, henceforth SAND/DynaSAND). The results from this project show that the sentence in (2) is grammatical in 39 dialects in the east of the Netherlands, as depicted on map 1.[2,3]

[1] Two dialect grammars that do mention TII are De Bont (1958) about the dialect of Oerle, and Deunk (1977) about Winterswijk Dutch.

[2] Sentence (2) was not the only sentence with TII from the SAND questionnaire. In the written questionnaire, the following sentences were included:

(i) Dat boek leg neer! "that book put down!"
(ii) (Als je echt niet kunt wachten), dan kom maar! "(If you really cannot wait), then come PRTC!"
(iii) Dat kijk maar! "that watch PRTC!"

Sentences (i) and (iii) were only included in the Flemish area, where TII is not allowed. (ii) was presented throughout the language area, and its results are highly similar to the results from (2), apart from being accepted further into the west of the Dutch language area. The contrast between *dan* en *dat* will be discussed in chapter 4. In the oral questionnaire, two more sentences with TII were included:

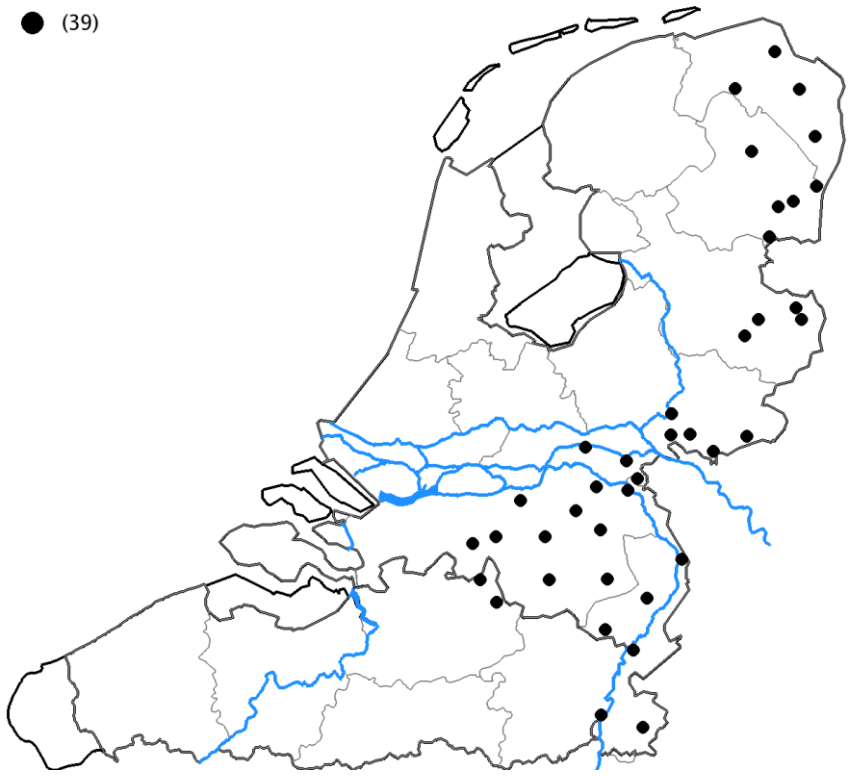
(iv) Dat boek beloof mij dat je nooit meer zult verstoppen! "that book promise me you will never hide again"
(v) Wat zeg mij dat je gekocht hebt! "what tell me you bought"

Acceptance of these sentences (containing long distance topicalization of a full NP and topicalization of a wh-element) is extremely marginal and will be regarded as noise.

[3] TII of *dat* "that" was accepted in two additional dialects outside of the Eastern Dutch area: Oost Knollendam/West Knollendam and Eemnes Buiten. These dialects are regarded as noise and therefore not depicted on the map.

(2) “Zal ik koken?” “**Dat doe maar!**”
shall I cook? That do PRTC
“Shall I cook?” “Do it!”

Map 1: TII of *dat* “that” (data: DynaSAND)



1.2. Previous analysis

The SAND data led to the publication of a series of papers by Barbiers (2007, 2013, 2016, and Barbiers, van Koppen, Bennis & Corver 2016) in which topicalization in imperatives in Dutch dialects is discussed. This account will be the theoretical starting point of this thesis. In this section, I will give an outline of Barbiers’ account of topicalization in imperatives, and evaluate his theory.

Based on the SAND data and additional individual interviews, Barbiers concludes that topicalization in imperatives in eastern Dutch dialects is restricted to distal demonstrative adverbs and pronouns (that is, *dan* “then”, *daar* “there”, *dat* “that”, and *die* “that”). Barbiers argues that the contrasts with Dutch (TII is not allowed) and German (TII is unrestricted) can be explained by morphosyntactic differences between the language varieties.

In order to fully understand Barbiers’ account, we first need some background information on the structure of Dutch dialects. In the literature, there are two competing proposals for Dutch V2 sentences. Den Besten (1983) argues that the in V2 sentences, the verb is always in C°. The subject moves to either SpecCP or SpecIP to derive subject-verb word order or X-verb-subject word order, respectively. The alternative analysis proposed by Zwart (1993) is that the subject is in a fixed position, SpecIP, and that the verb moves to I° or to C° to derive the different word orders, subject-verb and X-verb-subject, respectively. More

recently, Postma (2011) proposed that these analyses are not competing but in fact refer to different types of dialects. The so-called "Den Besten dialects" are the dialects that have different 2P.SG subject pronouns, depending on the word order, whereas "Zwart dialects" are the dialects that have different verbal inflection with 2P.SG, depending on the word order. Postma argues that these different morphological forms correspond to different structural projections. The proposed structural analyses for these dialects, as well as their geographical distribution, are given in (3, 4) and maps 2 and 3.

(3) Den Besten structure

SpecCP	**C°**	**SpecIP**	**I°**
(Du)	Löp-s	(Dich)	

(4) Zwart structure

SpecCP	**C°**	**SpecIP**	**I°**
	(loop)	Jij	(loop-t)

Map 2: Den Besten dialects (Postma 2011: 60)

Map 3: Zwart dialects (Postma 2011: 63)

Crucial for Barbiers' analysis of TII is Postma's proposal that dialects can be in a transition from a Den Besten structure to a Zwart structure. Postma argues that this happens via reanalysis in the C˚-SpecIP domain. More specifically, a part of the 2P.SG subject pronoun in SpecIP in Den Besten dialects is reanalyzed as verbal inflection. This is illustrated in (5) and (6). The consequence of this reanalysis is that SpecCP becomes unavailable for the spell out of pronouns, and that I˚ becomes available for the spell out of verbs, corresponding to a Zwart template.

(5)

Verb	**Subject-focus marker**
Loop	d-ix

(6)

Verb	**Subject-focus marker**
Loop-d	ix-∅

Brabantic dialects appear to be right in this stage of reanalysis, since they have overt partial subject incorporation on the verb in verb-subject word order (7).

(7) Leef-de gij gezond? Brabantic
live- you you healthy?
"Do you live healthy?"

With Postma's work as background, we can now return to Barbiers' account of TII. Barbiers proposes, building on i.a. Portner (2004) and Zanuttini (2008), that imperative clauses must be marked as 2P, in either C˚ or SpecCP. There are multiple ways in which a language can receive this marking. In Standard Dutch, the CP receives this marking by means of movement of a covert 2P subject pronoun to SpecCP. By this, the SpecCP position is occupied, making movement of another phrase to SpecCP impossible. This explains the unavailability of TII in Standard Dutch. In German, strong verbs have an imperative that is unique in the verbal paradigm. Barbiers proposes that these verbs carry a 2P marking themselves, marking the CP with 2P as they move to C˚ in the imperative. There is thus no need to move the covert 2P pronoun to SpecCP, leaving this position open for other constituents to move to. This makes topicalization in imperatives possible for all elements.

The case of Eastern Dutch dialects, where topicalization apparently is restricted to distal demonstrative pronouns, is somewhat more complicated. Barbiers proposes to tease apart 2P as referring to two features: *person* and *distal*. By this, second person falls into a natural class with distal demonstrative pronouns, as evident from the proposed pronoun system in table 1.

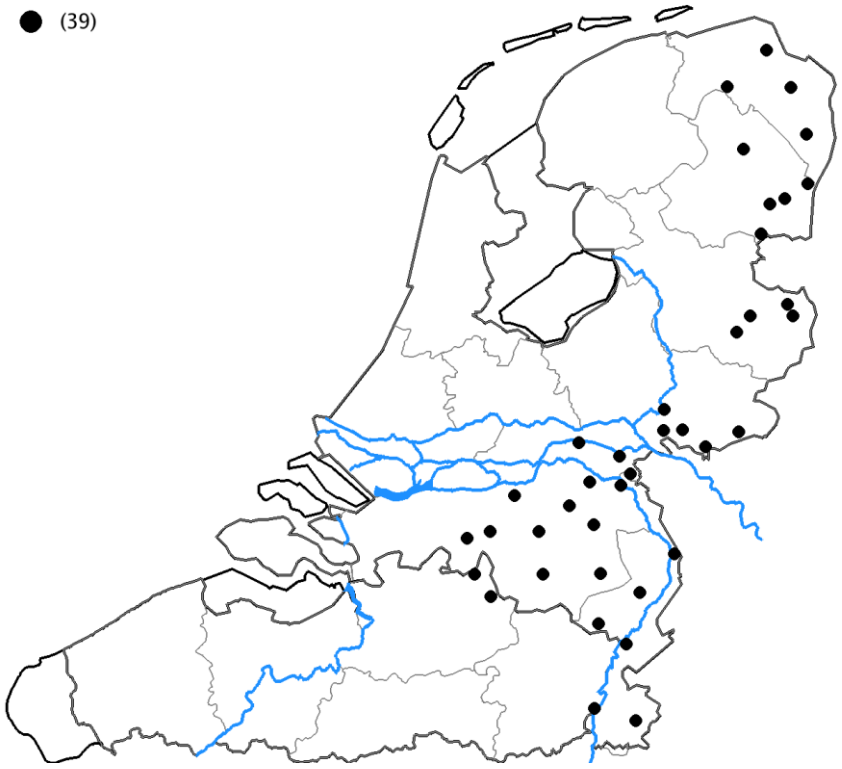
Table 1: Pronoun system by Barbiers (2013)

Relation to Deictic Center	**Neutral (< DC)**	**Proximate (= DC)**	**Distal (> DC)**
Place	*Er* "there"	*Hier* "here"	*Daar* "there"
Time	*Toen* "then"	*Nu* "now"	*Dan* "then"
Person	*Hij/zij/het* "he/she/it"	*Ik* "I"	*Jij* "you"
Entity	'*t/de* "the"	*Dit/deze* "this"	*Dat/die* "that"
Tense	Past	Present	Imperative

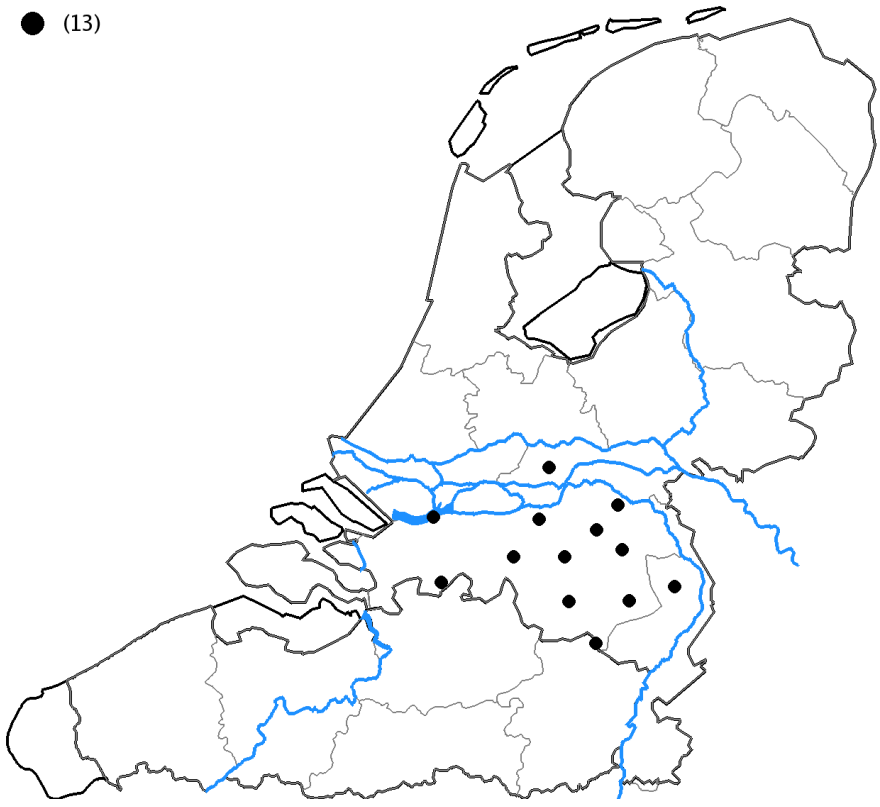
This refinement implies that imperatives need to be marked with the (interpretable) features *person* and *distal* in the CP. The group of dialects that allows distal demonstrative pronoun fronting in imperatives shows some overlap with the group of dialects that has partial subject incorporation, as illustrated in maps 4 and 5.[4]

[4] Map 5 is not exhaustive: in informal interviews, speakers from the dialect of Rucphen (West Brabant) pointed out to me that this dialect does have partial subject incorporation (whereas TII is highly ungrammatical) – this seems to hold for the rest of West Brabant too. Because the West Brabant area is underrepresented in the SAND, this is not depicted on the map. See also the data in Van Engeland (2015) for the same observation.

Map 4: TII of *dat* “that” (data: DynaSAND)



Map 5: Partial subject incorporation 2P.SG (data: DynaSAND)



If there is partial subject incorporation, a part of the subject attaches to the verb. Barbiers assumes that through this operation, the *person* feature of the subject is shared with the verb. Barbiers proposes that incorporation of the *person* feature is generalized to imperative sentences. By this, the imperative CP is thus marked for *person*. It only still needs the *distal* feature to fulfill the requirement of imperatives (i.e. marking with *person* and *distal*). This can be achieved by movement of a distal demonstrative pronoun to SpecCP. Because these pronouns are marked with *distal* according to the scheme in table 1, they are able to mark CP with *distal*. The result is that topicalization of distal demonstrative pronouns in these dialects is a possibility. When there is no overt topicalization, the covert 2P subject pronoun moves to SpecCP to provide the CP with *distal*.

As is evident from the maps in 4 and 5, not all dialects allowing topicalization in imperatives have partial subject incorporation of the 2P pronoun. However, a subset of those dialects has a double grammar, i.e. a Den Besten grammar as well as a Zwart grammar. Barbiers suggests that if partial subject incorporation is an inherent part of the transition from a Den Besten structure to a Zwart structure, then abstract partial subject incorporation may take place in these dialects too, making TII possible.

In his account, Barbiers relates topicalization in imperatives to morphosyntactic properties regarding 2P features in C˚. In Van Alem (2017), I looked into morphosyntactic properties of the full set of dialects that allow TII in the Dutch language area. These properties are partial subject incorporation of the 2P, complementizer agreement with 2P.SG, double agreement with 2P.SG, the 2P.SG pronoun, and the morphological form of the imperative in relation to the rest of the verbal paradigm. This resulted in the identification of five dialect regions. These regions and their properties are depicted in map 6 and table 2.

Map 6: Dialect regions with TII (Van Alem 2017)

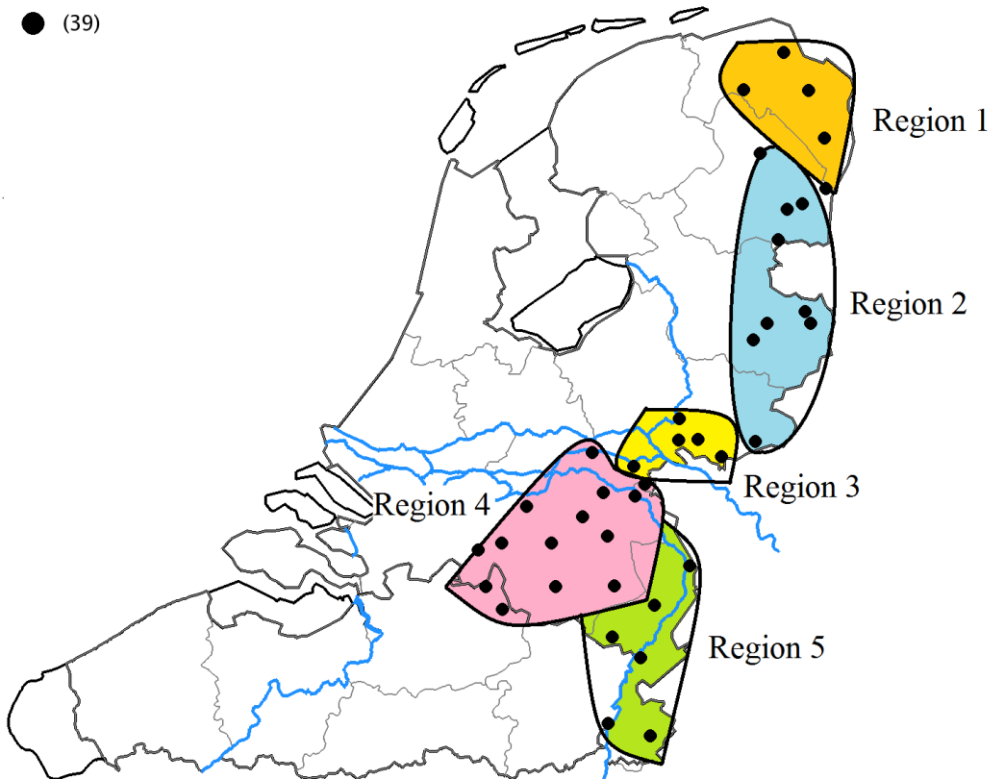


Table 2: Properties of dialect regions with TII (Van Alem 2017)

	2P.SG pronoun	**Double agreement**	**Comp agreement**	**Partial subject incorporation**	**Unique imperative verb**
Region 1	*Du*	No	Yes	No	No
Region 2	*Du, jij*	Only with *jij*	No	No	No
Region 3	*Jij*	Variable	No	No	No
Region 4	*Gij*	Yes	No	Yes	No
Region 5	*Du*	No	Yes	No	Yes, with *gaan* ("to go")

Barbiers' account can explain topicalization in imperatives in two of those regions. In region 2, there is evidence for a double grammar, which hypothetically leads to abstract partial subject incorporation, which gives the imperative verb its *person* value. In region 4, we find partial incorporation of the second person pronoun, also providing the imperative verb with a *person* feature. TII in regions 1, 3, and 5 is unaccounted for. Barbiers' proposal can thus only partially explain the option of TII. On the other hand, Barbiers' account seems to over-generate. Outside the region where topicalization in imperatives is found, there are many dialects with partial subject incorporation of the second person pronoun (in West Brabant, cf. *supra*). Given the account outlined above, these dialects are predicted to allow topicalization of distal pronouns, but this is not what is found.

Van Alem (2017) also collected data on TII from one location in each dialect region. It was found that TII is not exclusively restricted to distal demonstrative pronouns. Although topicalization is truly restricted to deictic constituents, there are dialects in which, in addition to distal demonstrative pronouns, also proximate constituents or full NPs can be topicalized.[5] This shows that Barbiers' proposal is also unable to fully cover the observed variation regarding the type of constituents that can be topicalized in imperative in different dialects of Dutch.

Another issue with Barbiers' account is that it involves some claims that rely on hidden or abstract syntactic material, which makes the hypotheses basically unfalsifiable. This is especially the case with the claims that partial subject incorporation in VS clauses is generalized to imperative clauses, and that dialects with a double grammar have abstract partial subject incorporation. Ideally, an alternative account does not involve such claims.

On the other hand, the idea that imperatives should be marked with *person* and *distal* in the CP seems well motivated, since it makes the relation between 2P and imperatives explicit, as well as the relation between different kinds of deictic elements (importantly: demonstratives and personal pronouns). Furthermore, it is likely that this marking is dependent on the morphosyntax of a language variety. Especially relevant appear to be the verbal paradigm and morphosyntactic variation related to distal pronouns and demonstratives, since the features *person* and *distal* play a role here.

[5] For this reason, in the remainder of this thesis, I will refer to TII that is subject to restrictions on the elements that are topicalized as "restricted TII" (in contrast to "unrestricted TII"), instead of topicalization of distal demonstrative pronouns.

1.3. Research questions

The aim of this thesis is to further unravel and explain the complexity of TII in dialects of Dutch. More specifically, the goal is to give an answer to the following research question:

What are the factors responsible for variation in topicalization in imperatives, as observed in the Dutch language area?

Since variation in TII applies to two levels, that is, the level of variation *between* dialects that do allow TII and dialects that do not, and the level of variation observed *within* dialects that allow restricted TII, a full answer to the research question should address the following subquestions:

(i) How can the option of topicalization in imperatives be explained?
(ii) How can the different patterns of restricted topicalization in imperatives be explained?

I will approach these questions from a syntactic perspective, i.e. I will look for syntactic factors explaining the observed variation. It is likely that there are additional factors involved, for instance pragmatic factors making topicalization felicitous in a given utterance, but I will leave those out of the discussion.

1.4. Outline and outlook

Since there is a major lack of data regarding topicalization in imperatives in Dutch dialects, the second chapter of this thesis discusses the methodology that was used to collect new data in 10 Dutch dialects, as well as the results that were obtained this way. The chapters that follow are devoted to the analysis of those results. Chapter 3 deals with explaining the option of TII in the Dutch dialects under discussion (subquestion 1). It will be argued that TII is possible due to an interaction of two linguistic variables: whether the dialect is a Den Besten or a Zwart variant, and whether the dialect has ablaut in the present tense verbal paradigm. The different possible combinations of those factors lead to clear predictions regarding the option of TII, that are shown to hold to a great extent. Chapter 4 deals with explaining the patterns of restricted TII that are observed (subquestion 2). It will be shown that these patterns can be derived by three descriptive parameters, and I will give an account for the existence of those parameters. Chapter 5 concludes this thesis with a summary and suggestions for further research.

2. Methodology and results

2.1. Introduction

In the previous chapter, we saw that data on TII is limited to a small number of dialect grammars and the data from the SAND project, in which topicalization of only a small set of constituents was tested. In order to make empirically correct claims, more data on TII is required. In this chapter, I will discuss the methodology that was used to collect new data on TII and related morphosyntactic properties in 10 Dutch dialects, as well as the results that were obtained this way.

2.2. Methodology

The methodology to collect data on TII is largely inspired by the methodology used in the SAND project, with some modifications specific to the aim of this study. In this section, the methodology of the interviews is discussed. The methodology was approved by the ethical committee of Utrecht University, ETCL.

2.2.1. Locations

The locations in which new data was collected were carefully selected based on the following criteria.

(i) They are geographically located in the region where TII is allowed according to the DynaSAND;
(ii) They have an equal spreading over this region;
(iii) Practical matters, such as the availability of participants.

The selected locations are Scheemda, Odoorn, Ootmarsum, Winterswijk, Didam, Veghel, Bergeijk, Someren, Tegelen and Heerlen. The locations are depicted on map (7).

Map 7: Locations interviews

2.2.2. Participants

Four speakers of the dialect of each location were recruited via organizations devoted to local culture and language, and via my personal network. One of these speakers was the "recording participant"; the additional three speakers were "listening participants". The recording participant was responsible for translating the sentences with topicalization in the imperative into their dialect and to read them aloud, which was recorded. This speaker needed to be a proficient speaker of the dialect of the location (with no additional criteria). The three listening participants were responsible for judging the recorded sentences. In addition, they were asked to translate (parts of) sentences assessing morphosyntactic properties into their dialect. These speakers needed to be proficient speakers of the dialect of the location, born and raised in the location of the dialect, and had to be 55 years old or older, because this generation of speakers generally has a better proficiency in the dialect and uses it more often. Because of time limitations, these criteria are somewhat looser than the ones used for the SAND (where the following additional criteria were used: the speakers' parents were be born and raised in the location of the dialect; the speaker had not lived in a different location for more than 7 years after the age of 18; the speaker uses the dialects in a public domain; and there was an upper age boundary of 70). Because these variables might still have an effect on their knowledge of the dialect, participants were asked to provide information on their history of residency, education level and the birthplaces of their parents.

In Didam, one participant had to be excluded because he was not born and raised in Didam. Furthermore, the results from one participant from Someren had to be excluded, because of hearing impairment. In both Ootmarsum and Bergeijk, one participant was unexpectedly unable to attend the interview, hence data from only two listening participants

was obtained in these locations. Information about all participating dialect speakers can be found in Appendix A.

2.2.3. Procedure

The procedure of the interview is very similar to the procedure used in the oral interviews for the SAND project. In preparation of the interview, the recording participant was asked to translate sentences containing topicalization in the imperative into their dialect, and to read them aloud. They were instructed that the order of the sentence containing the imperative was supposed to remain as given. They were also specifically instructed on the intonation of the imperative sentence, to avoid a left dislocation intonation pattern. By that, they were made aware of the purpose of the study. This is not problematic, because these speakers were not involved in judging the sentences. As such, these speakers are similar to the "assistant interviewer" in the SAND methodology (in which sentences and questions were also recorded prior to the interview). In most cases, recording took place on the same day as the interview. Only for the dialects of Tegelen and Heerlen, the sentences were recorded prior to the interview. The recording participant was either absent from or not involved in the interview with the listening participants.

The interview itself consisted of two parts. The first part was an indirect grammaticality judgement task, to assess topicalization in imperatives. The sentences recorded by the recording participant were played to the listening participants. They were instructed to judge if these sentences could be encountered in their dialect. They were also instructed to pay specific attention to the word order of the sentence (as opposed to lexical and phonological properties). Each participant was given a 5-point Likert scale on paper to express their individual judgements, including space to write down optional comments regarding their judgement. To make sure that the listening participants understood this procedure, two practice items were included. After finishing the indirect grammaticality judgement task, there was opportunity to discuss the judgements given by the participants, to dissolve possible disagreement between the listening participants. However, participants maintained their judgements almost without exception (leading to sentences that participants did not agree on).

The second part of the interview consisted of a translation task. The listening participants were asked to translate sentences and verbal paradigms into their dialect and to read them aloud. For this part of the interview, the participants were allowed to discuss their translations, to reduce the influence from written Standard Dutch. The whole interview was recorded with a Zoom H6 recorder and transcribed by the fieldworker.

2.2.4. Material

The indirect grammaticality judgement task consisted of 21 constructions with topicalization in the imperative. The results from Van Alem (2017) showed that topicalization of non-deictic elements was always ungrammatical in Dutch dialects, therefore this study only tested different kinds of deictic constituents. The following distinctions were taken into account:

(i) Proximal vs. distal
(ii) Pronoun vs. full NP

(iii) Type of deixis: locative, temporal, entity (neuter + common)
(iv) Within locative pronouns: pronouns with a locative interpretation vs. pronouns without a locative interpretation (i.e. extracted as the complement of a PP)
(v) Within temporal pronouns: pronouns with a temporal interpretation vs. pronouns without a temporal interpretation (i.e. discourse particles)
(vi) Within distal temporal pronouns with a temporal interpretation: future vs. past

This leads to sentences containing the constituents in table 3.

Table 3: All topicalized elements tested in the interviews

		Proximal		**Distal**		
		Pronoun	Full NP	Pronoun		Full NP
Locative	Locative interpretation	*Hier* "here"	*In deze kast* "in this cabinet"	*Daar* "there"		*Op die stoel* "on that chair"
	Non-locative interpretation	*Hier* "here"	xx	*Daar* "there"		xx
Temporal	Temporal interpretation	*Nu* "now"	*Deze week* "this week"	Future	*Dan* "then"	*Die vrijdag* "that Friday"
				Past	*Toen* "then"	
	Non-temporal interpretation	*Nu* "now"	xx	*Dan* "then"		xx
Entity	Neuter	*Dit* "this"	*Dit boek* "this book"	*Dat* "that"		*Dat koekje* "that cookie"
Entity	Common	*Deze* "this"	*Deze plant* "this plant"	*Die* "that"		*Die doos* "that box"

Each sentence containing TII was preceded by a sentence providing a proper semantic context for topicalization. Furthermore, each sentence included the focus marker *maar*, as this appears to obligatory with TII. A speaker of a restricted TII dialect confirmed that topicalization in the imperative was semantically appropriate in all contexts. An example of a test item is given in (8).

(8) De bakker gaat om 10 uur open. Dan ga maar brood halen!
the baker goes at 10 hour open. Then go PRTC bread to.fetch
"The bakery opens at 10 o'clock. Fetch some bread THEN."

In addition to the test items, two practice items were included in the task. The practice items had the same structure as the test items, but no topicalization in the imperative. One practice item was grammatical; the other practice item was not (due to a faulty word order).

The translation task consisted of five sentences containing a 2P.SG pronoun preceded by different complementizers (*dat* "that", *dan* "then", *nu* "now", *waar* "where", *toen* "then"), testing complementizer agreement and *pro*-drop, and of five verbal paradigms, in SV and VS word order, and including the singular and plural imperative, testing paradigmatic properties. The verbs were *gaan* "to go" (irregular), *helpen* "to help" and *geven* "to give" (both strong), and *werken* "to work" and *stoppen* "to stop" (both weak/regular). The full set of test material can be found in Appendix B.

2.3. Results

2.3.1. Topicalization in imperatives

The results on the indirect grammaticality judgement task were handled as follows: if a sentence was rated with a 4 or 5 (on the scale of 5), the sentence would be marked as "occurring". If informants indicated that they used 4 when they thought topicalization was out (but the rest of the sentence was fine), only sentences with a rating of 5 would get a marking as "occurring". If a sentence was occurring for the majority (2 out of 3, or 2 out of 2) of listening participants, the final decision would be that the sentence is grammatical. In case of disagreement between the participants, the sentence would be given a disagreement marker %. While deciding on the final grammaticality judgement, reported or spontaneous topicalization was taken into account. The results per sentence per dialect can be found in Appendix C. The sentence containing *die doos* "that box" is getting high ratings very often, but without a clear structure. This sentence was presented second in the interview. I take the high ratings on this sentence to result from task effects, and the judgements on this sentence will not be leading.

This thesis is not concerned with the individual items, but with the categories that can topicalize in imperatives (e.g. distal vs. proximal; pronoun vs. full NP). If 50% or more of the sentences within one of those categories was grammatical, I take that the whole category can topicalize. This might seem on the low side, but it is likely that there are additional (pragmatic) factors involved in TII, that might have inhibited a positive judgement. In the test items, some further distinctions were made, i.e. the type of the element and functional (i.e. non-locative, non-temporal) or lexical (i.e. locative, temporal) meaning of a particular element. Regarding the last point, no real differences were observed: functional and lexical elements behave the same. However, there does appear to be a difference between types of elements. Specifically, temporal pronouns topicalize much easier than non-temporal pronouns. Therefore, temporal pronouns are included as a separate category.[6] Table 4 summarizes the results per category per dialect.

[6] This does not hold for the past tense pronoun *toen* "then". Possibly, this arises from the marked form of the past tense imperative.

Table 4: Summarized TII results per dialect[7]

	Proximal pronoun		**Proximal full NP**	**Distal pronoun**		**Distal full NP**
	Temporal	Other		Temporal	Other	
Scheemda	-	-	-	-	-	-
Odoorn	-	-	-	+	-	-
Ootmarsum	-	-	-	-	-	-
Winterswijk	-	-	-	+	+	+
Didam	-	-	-	+	-	-
Veghel	+	+	-	+	+	-
Bergeijk	-	-	-	+	+	-
Someren	-	-	-	+	+	-
Tegelen	+	-	-	+	-	-
Heerlen	+	-	-	+	-	-

The dialects of Scheemda and Ootmarsum do not allow TII; the other dialects have (different patterns of) restricted TII.

2.3.2. Morphosyntactic properties

The morphosyntactic properties below were assessed with the translation task.

(i) 2P.SG pronoun
(ii) Double agreement with 2P.SG (DA)
(iii) Complementizer agreement with 2P.SG (CA)
(iv) Partial subject incorporation 2P (PSI)
(v) *Pro*-drop of 2P.SG
(vi) Imperative verb

The results for those properties are summarized in table 5.

[7] The order in which the dialects are presented here and in the rest of the tables in this thesis is dependent on their geographical distribution; this allows the reader to easily identify geographical correlations between dialects.

Table 5: Morphosyntactic properties per dialect

	2P.SG pronoun	**DA**	**CA**	**PSI**	***Pro*-drop**	**Unique imperative verb**
Scheemda	*Du*	-	+	-	+	-
Odoorn	*Jij* (*du* marginal)	+	-	-	-	-
Ootmarsum	*Jij* (*du* marginal)	+	-	-	-	-
Winterswijk	*Jij* (*du* marginal)	+	-	-	-	-
Didam	*Gij*	Variable	-	-	-	-
Veghel	*Gij*	+	-	+	+/-[8]	-
Bergeijk	*Gij*	+	-	+	+/-	-
Someren	*Gij*	+	-	+	+/-	-
Tegelen	*Du*	-	+	-	-	+ (*gaan*)
Heerlen	*Du*	-	+	-	-	+ (*gaan*)

These properties show that all dialects investigated here are part of a dialect region as identified by Van Alem (2017), and that all regions are represented in the present sample. Specifically, Scheemda belongs to region 1; Odoorn, Ootmarsum and Winterswijk belong to region 2; Didam belongs to region 3; Veghel, Bergeijk and Someren belong to region 4; and finally, Tegelen en Heerlen belong to region 5.

An additional observation from the verbal paradigms is that all the dialects have ablaut (a vowel change depending on conjugation) in the present tense paradigm of at least one of the strong verbs tested in the interviews. Dialects differ whether ablaut occurs with 2P and 3P or only with 3P. There is also variation in whether ablaut is found on the imperative verb. This is summarized in table 6.

Table 6: Patterns of ablaut per dialect

	Ablaut 3P	**Ablaut 2P**	**Ablaut imp. verb**
Scheemda	+	+	-
Odoorn	+	-	-
Ootmarsum	+	-	-
Winterswijk	+	-	-
Didam	+	-	-
Veghel	+	+	+
Bergeijk	+	+	+
Someren	+	+	+
Tegelen	+	+	-
Heerlen	+	+	-

[8] The status of *pro*-drop in Veghel, Bergeijk and Someren is unclear: in these dialects, the strong 2P pronoun can drop, but only when there is partial subject incorporation (i.e. in VS contexts). Because this property will not be relevant in the remainder of this thesis, I will not go into it, but see Van Engeland (2015) for extensive discussion.

2.4. Discussion

It is a well-known problem that speakers' intuitions do not always line up with the language that they actually use (Cornips & Poletto 2005). This was also an issue in this study: participants who reported to find TII completely ungrammatical, were "caught" on using this construction just a few minutes later. The indirect grammatically judgement task was used to accommodate this issue, since it does not ask directly for grammatical intuitions, but rather for implicit judgements. When participants spontaneously produced structures with TII, they lined up with their judgements on the task, indicating that the task was sensitive enough to detect TII.

Because of the fairly large number of deictic elements that were investigated in this study, all items were only included once in the indirect grammaticality judgement task, to keep the length of the task limited. This makes the results sensitive to noise effects, because it is likely that there are also pragmatic and intonational aspects involved in TII, for which this task did not specifically control (although it was tried to reduce influence from those factors by giving a context and by instructing recording participants on intonation). However, I am interested in the results per category, and not in the results per individual item. Since there are multiple items per category, the noise effect per category is probably limited. Furthermore, I make use of the aggregated results from 3 dialect speakers. When the judgement from one of the dialect speakers was influenced by non-syntactic factors, the judgements from the others might balance this out. However, it has to be acknowledged that the methodology used for this type of research is not foolproof and that the judgements should be regarded as qualitative rather than quantitative.

For the dialects of Heerlen and Tegelen, the recording participant was much younger than the listening participants. Although both recording participants indicated to speak the dialect well, there appeared to be a big gap between the knowledge or use of the dialect between the younger recording participant and the older listening participants. This was somewhat problematic during the interviews, because the listening participants noticed this and it might have influenced their judgements. For future research, I therefore recommend to look for recording participants from the same generation as the listening participants.

2.5. Summary

This chapter discussed the methodology and results of the data collection on TII and related morphosyntactic variables in 10 dialects throughout the Netherlands. Of all the regions allowing TII identified by Van Alem (2017), at least one dialect is included in the present sample. The topicalization patterns of those dialects are summarized in table 7. Furthermore, it was found that all dialects have ablaut, with their specific properties summarized in table 8.

Table 7: Summarized TII results per dialect

	Proximal pronoun		**Proximal full NP**	**Distal pronoun**		**Distal full NP**
	Temporal	Other		Temporal	Other	
Scheemda	-	-	-	-	-	-
Odoorn	-	-	-	+	-	-
Ootmarsum	-	-	-	-	-	-
Winterswijk	-	-	-	+	+	+
Didam	-	-	-	+	-	-
Veghel	+	+	-	+	+	-
Bergeijk	-	-	-	+	+	-
Someren	-	-	-	+	+	-
Tegelen	+	-	-	+	-	-
Heerlen	+	-	-	+	-	-

Table 8: Patterns of ablaut per dialect

	Ablaut 3P	**Ablaut 2P**	**Ablaut imp. verb**
Scheemda	+	+	-
Odoorn	+	-	-
Ootmarsum	+	-	-
Winterswijk	+	-	-
Didam	+	-	-
Veghel	+	+	+
Bergeijk	+	+	+
Someren	+	+	+
Tegelen	+	+	-
Heerlen	+	+	-

The remainder of this thesis will focus on the analysis of those patterns. Specifically, chapter 3 will discuss the option of TII, and chapter 4 the different patterns of TII.

3. The option of topicalization in imperatives

3.1. Introduction

In this chapter, the first subquestion formulated in chapter 1 of this thesis will be addressed: How can the option of topicalization in imperatives be explained? Hence, this chapter will focus on differences between dialects that allow TII and dialects that do not. In the first chapter of this thesis, I discussed the analysis of topicalization in imperatives by Barbiers (2013). Although the analysis makes the correct predictions regarding the option of TII for a subset of Dutch dialects, it also under- and overgenerates. In this chapter, I will propose an alternative analysis of topicalization in imperatives in Dutch dialects, taking into account some of the core properties of imperatives, as well as (morpho)syntactic differences between the dialects, while maintaining some of the important insights by Barbiers.

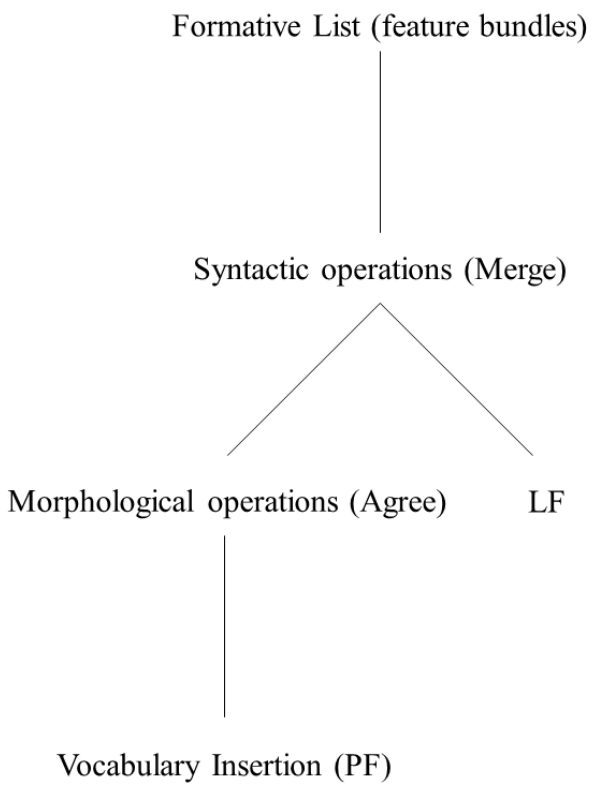
The outline of the chapter is as follows: in section 3.2, I will discuss the necessary theoretical background of the analysis, going somewhat deeper into the framework used in this thesis, and providing some general notes on imperative clauses. In section 3.3, the components of my analysis will be discussed and then connected, explaining why topicalization in imperatives is a possibility in some dialects, but not in others. Section 3.4 discusses some empirical exceptions and remaining questions, and section 3.5 concludes and summarizes this chapter.

3.2. Theoretical background

3.2.1. The framework

This thesis is embedded in the Distributed Morphology framework (Halle & Marantz 1993; Harley & Noyer 1999). Distributed Morphology is an anti-lexicalist theory, in that it assumes that there is not an active lexicon. Instead, syntactic operations are performed on feature bundles (coming from the Formative List). The interpretation of a sentence is created in the mapping to LF, whereas the phonological content of a sentence is created in the mapping to PF, where Vocabulary Items (VIs) that match the morphosyntactic feature bundles created in syntax are inserted (Late Insertion). This is schematically depicted in figure 1. Note that morphosyntactic operations (such as Agree) happen after syntactic operations and that they are, as such, not accessible to LF.

Figure 1: Distributed Morphology model of grammar



Let us look with some more detail to the morphosyntactic feature representation. Following Boef (2013, and references cited therein), I assume that morphosyntactic features have an attribute-value structure: [attribute: value]. Furthermore, features can be underspecified, meaning that absence of a value is meaningful. The absent feature value is used for the default value of a given feature. To give an example: say that for the attribute *number*, there are two values, *singular* and *plural*, of which *singular* is the default. The morphosyntactic representation of singular and plural would then be as in (9). Finally, I follow Rooryck (1994) in assuming that whereas *under*specified features are meaningful, *un*specification of a given feature (i.e. complete absence of that feature) means that it can and does not have a syntactic function.

(9) [number:] singular (valued; underspecified)
[number: plural] plural (valued)

The example in (9) involves *valued* features. However, features can also be *unvalued* (in which case they act as Probes). In that case, the attribute of the feature is present, but it has not (yet) been assigned a value. This will be represented as follows:

(10) [number: __] unvalued

Note that an unvalued feature is different from an underspecified feature, as indicated in (9). In case of an underspecified feature, the feature has a value, even though the value is empty. In the unvalued feature in (10), there is no value present at all.

In addition to valuation of features, I assume, following Pesetsky and Torrego (2007), that features are *interpretable* or *uninterpretable*. Whereas valuation of a feature plays a role on the morphological side of the syntactic derivation, interpretability is important for LF. Valuation and interpretability of features are dissociated, leading to four possible types of features, summarized in table 9.

Table 9: Types of features (based on Pesetsky & Torrego 2007)

	Uninterpretable	**Interpretable**
Valued	*u*[attribute: value]	*i*[attribute: value]
Unvalued	*u*[attribute: __]	*i*[attribute: __]

Pesetsky and Torrego follow Brody (1997) and posit that for each feature, there must at least be one interpretable instance (Thesis of Radical Interpretability). In order to get an interpretation, the feature must be valued.

3.2.2. Feature specification of pronouns

In the analysis of the option of TII put forward in this chapter, the features distinguishing person in pronouns play an important role, therefore I would like to lay out my assumptions regarding that here already.

In the first chapter of this thesis, I discussed Barbiers' (2013) proposal of the Dutch pronoun system. The system he proposes is repeated in table 10 below.

Table 10: Pronoun system by Barbiers (2013)

Relation to Deictic Center	**Neutral (< DC)**	**Proximate (= DC)**	**Distal (> DC)**
Place	*Er* "there"	*Hier* "here"	*Daar* "there"
Time	*Toen* "then"	*Nu* "now"	*Dan* "then"
Person	*Hij/zij/het* "he/she/it"	*Ik* "I"	*Jij* "you"
Entity	'*t/de* "the"	*Dit/deze* "this"	*Dat/die* "that"
Tense	Past	Present	Imperative

With respect to personal pronouns, note two properties of this system. First, the inherently deictic character of pronouns is implemented syntactically, by expressing the relation of the pronoun to the deictic center. Second, personal pronouns all have a feature *person*, to distinguish them from other deictic elements (demonstratives). Although both properties are well motivated, there are some subtleties that this system is missing. For instance, there seems to be an intuitive and syntactic distinction between first and second pronouns on the one hand, and third person pronouns on the other (cf. Harley & Ritter 2002; Bennis & MacLean 2006), that is not encoded in this system. A comparable intuitive distinction appears to be there between coinciding with the deictic center and not coinciding with the deictic center (first person versus second and third person). If we take the attribute-value representation of

features outlined above, these properties can also be syntactically encoded. Consider the proposed feature system in table 11.[9,10,11]

Table 11: Feature system of personal pronouns

Pronoun	**Features**
1P	[person:] [deixis:]
2P	[person:] [deixis: distal]
3P	[person: non-participant] [deixis: distal]

The attribute-value pair for *person* indicates whether the pronoun is a discourse participant or not. I take to be the default the role of participant (referring to first and second person), non-participant being marked and therefore specified. The attribute-value pair for *deixis* indicates distance to the deictic center.[12] Here, the observation of coincidence vs. non-coincidence with the deictic center is the crucial component. Hence, *distal* should be read as "not coinciding with the deictic center". I propose that the default for *deixis* is language specific (cf. Béjar 2003 for a similar proposal with respect to *participant*). There have been made good arguments for both *proximal* and *distal* being the default value (see e.g. Cowper and Hall (2002) who assume that *proximal* is the default of *deixis*, and Rooryck (2003) and Boef (2013) for arguments that *distal* is default). For ease of exposition, I will work with *proximal* as default in the largest part of this thesis, but the language specificity of the default becomes relevant in chapter 4.3.5. Finally, let us assume that *deixis* is a dependent of *person*, i.e. if there is a *deixis* specification, a *person* specification becomes independently necessary (cf. Béjar's [π] feature) – in other words, these features are hierarchically organized (cf. Harley & Ritter 2002; Béjar 2003). The hierarchical organization of features becomes relevant in section 3.3.2.

The proposed system has all desired properties. First, it encodes that all personal pronouns have a *person* feature (as an attribute), although the value might differ across different pronouns. Second, it makes evident that first and second person form a natural class (with the feature [person:]), as well as second and third person ([deixis: distal]). On other hand, it is an economical system, since it only employs two attribute-value pairs to express these properties. Furthermore, the dependency of *deixis* on *person* creates the possibility to

[9] Here and in the rest of this thesis, I am only involved with *person* distinctions, abstracting away from *number* and *gender* (and possibly other distinctions) that pronouns can express. Where I do mention *number* as a feature, it is only for exposition, and not meant to make any meaningful statements about it.

[10] *Neutral* (see table 10) can be represented either as a different value for *deixis* or as the complete absence of *deixis* (unspecification). Since this feature does not play a role in this thesis, I will leave its technicalities for future work.

[11] I am aware that there is a tension between 3P being the most specified pronoun in the present system and ideas that 3P is in fact completely underspecified (e.g. Harley & Ritter 2002). At this point, I have no answer to this issue.

[12] There is some debate whether 3P is truly deictic. Here, I follow Béjar (2003), who argues that it is, albeit not a discourse shifter, but see Harley and Ritter (2002) for an opposing view.

create a feature geometry of pronouns. In the following sections, I will show how the feature system of personal pronouns is relevant for imperatives.

3.2.3. Imperatives

The imperative clause has attracted linguists' attention for years (see Van der Wurff 2007 for an overview). Although many language-specific peculiarities have been identified, there are three properties that seem to characterize the imperative cross-linguistically. The first property is that the imperative verb is generally morphologically very minimally marked. Standard Dutch and English are a case in point, since both employ the bare verb stem as imperative (11, 12).

(11) Neem je boek.
Take-Ø your book
"Take your book."
(12) Read the first chapter.

The second typical characteristic of imperatives is that they lack an overt subject (or that, at least, the subject can be covert in imperatives). However, at some representational syntactic level, a second person subject is present (the third characteristic). This is commonly illustrated with binding of reflexives (13).

(13) Wash yourself/*myself/*himself!

The second person reflexive can be bound in an imperative clause (in contrast to first and third person reflexives), indicating that there must be a local second person antecedent (Binding Condition A).

Taking these three properties are the core characteristics of imperatives, any syntactic analysis of the imperative clause should make reference to them. Here, I propose to combine Bennis' (2007) ideas about the covert subject in imperatives and Barbiers' (2013) proposal on the second person interpretation in imperatives. Bennis argues that the subject in imperatives is *pro*, even in languages that do not generally allow *pro* (like Dutch). *Pro* inherently has unvalued but interpretable features, that receive a value by means of Agreement with an element that has valued features. In the previous section, I have argued that person in pronouns can be distinguished with the features *person* and *deixis*; let us therefore assume that pro has unvalued but interpretable *person* and *deixis* (i.e. *i*[person: __] and *i*[deixis: __]). As we have seen in chapter 1, Barbiers proposes that the imperative CP needs *i*[person] and *i*[distal] features (i.e. second person features), to indicate the imperative force of the clause. In the feature theory employed in this thesis (cf. *supra*), these features should be rephrased as *i*[person:] and *i*[deixis: distal]. Since these features need to be present for interpretation, it follows that they need to be specified at the point where the derivation is sent to LF, i.e. on the Formative List or via syntactic operations (and, crucially, not via morphological operations). Under the assumption that the imperative CP has *i*[person:] and *i*[deixis: distal], it can be explained why *pro* can occur in imperatives: *pro* can receive its values through Agreement with the second person features in the CP. This explains the covert subject

in the imperative as well as the second person interpretation of the imperative: the CP has second person (or rather: *i*[person:], *i*[deixis: distal]) features for an imperative interpretation; these valued features are able to assign a value to the unvalued features on *pro*, making the occurrence of *pro* in imperatives legit. Regarding the very poor morphology that the imperative verb generally has, I assume that, by default, a language uses the root of the verb as imperative (i.e. the imperative is listed without any morphosyntactic feature on the Formative List). This is empirically supported by findings that in over half of the languages, imperatives are not morphologically marked (e.g. Sadock & Zwicky 1985). Depending on language specific properties, however, some further specification of the imperative might be necessary, leading to morphological effects. Later on, I will show that this is crucial for the account of TII.

The question arises how the imperative CP gets its *i*[person:] and *i*[distal: distal] features.[13] If we assume that features in C˚ are accessible to SpecCP via Spec-Head Agreement, as well as the other way around, there are two straightforward ways for the CP to get its features. First, a head with interpretable and valued features can move to C˚; second, an element with interpretable and valued features can A-bar move to SpecCP. In addition, there appears to be a third way that can get the imperative CP its *i*[person:] and *i*[distal: distal] features. Assume that in Dutch, C˚ has unvalued features (in line with Carstens 2003, Van Koppen 2005), and that these features are interpretable. Recall from the discussion of Pesetsky and Torrego (2007) that in order to be interpreted at LF, features need to have an interpretable instance and that the feature must be valued. Nothing excludes the possibility that the interpretable instance of a feature is different from the valued instance. In other words, when there is a chain of matching features (where "matching" means: features with the same attribute), in which one instance is interpretable and another instance is valued, interpretability at LF can proceed. So, if an element with an uninterpretable but valued feature moves to C˚ or SpecCP, those features will be accessible to CP, and specifically to the interpretable but unvalued features in C˚. If these features are matching, then this is sufficient to derive interpretability: there is a chain of features in which one of the instances is interpretable (the feature on C˚) and another instance is valued (the feature on the moved element).

Given these considerations, there are three options by means of which the imperative CP can get its *i*[person:] and *i*[deixis: distal] features that lead to imperative force:

(i) A-bar movement of an element with valued interpretable features to SpecCP.
(ii) Head movement of an element with valued interpretable features to C˚.
(iii) Movement of an element with valued uninterpretable features to C˚ or SpecCP. If C˚ has a matching unvalued interpretable feature, interpretation will proceed through chain formation.

[13] For the purposes of this chapter, it suffices to assume a simple version of the CP with just one layer. In chapter 4, I will be more explicit about the exact architecture of the CP.

An example of the first option is movement of a deictic demonstrative pronoun, with a valued deixis feature, to SpecCP.[14] The second option requires there to be a head (in this case, a verb) with valued interpretable features. However, following Pesetsky and Torrego (2007), I take features on verbs to be uninterpretable. This option can therefore be excluded. Although features on verbs are uninterpretable and cannot give the CP its features directly, it can via option (iii), if the features on the verb and C˚ are matching. Later on in this chapter, I will give examples of both options (i) and (iii).

Given that C˚ has interpretable but unvalued features, one might wonder why Probe-Goal Agreement is not an option to value the features in C˚, giving the sentence its imperative interpretation. Because CP needs *i*[person:] and *i*[deixis: distal] to give the sentence a certain *interpretation*, I assume that these features need to be present when the derivation is sent to LF. Given the Distributed Morphology model of grammar (cf. *supra*), this means that the derivation needs to get its *i*[person:] and *i*[deixis: distal] features from the Formative List or via syntactic operations. Morphological operations, such as Probe-Goal Agreement, occur on the PF branch of the derivation, and are not accessible to LF. Therefore, valuing features via Probe-Goal Agreement does not have an effect on interpretation.[15]

To summarize, this section discussed some general properties of the imperative clause, and how they are to be implemented in the framework discussed in the previous section. Following Bennis (2007) and Barbiers (2013), I take imperatives to have a *pro* subject, and that the second person interpretation arises from the feature specification *i*[person:] and *i*[deictic: distal] in CP, a specification that languages can get in various ways. I furthermore argued that the imperative verb is morphologically poor because, by default, the root is used as imperative. In the remainder of this chapter, I will show that variation in the way the imperative clause gets its feature specification and the listing of the imperative verb lead to variation in the option of TII.

3.3. Towards an explanation

3.3.1. Two types of dialects

In chapter 1, we saw that Postma (2011) proposed a distinction between Den Besten and Zwart dialects, based on different properties: Den Besten dialects have different 2P.SG subject pronouns depending on subject-verb word order, whereas Zwart dialects have a Double Agreement paradigm, depending on word order. Postma argues that this can be explained by different structural analysis for those dialects. In Den Besten dialects, the verb is always in C˚, and the subject moves to SpecIP or SpecCP. In Zwart dialects, the subject is always in SpecIP, but here the verb moves to either I˚ or C˚. The structural representations are repeated in (14, 15).

[14] The trigger for this movement will be discussed in chapter 4. For now, it suffices that an element with valued features moves to SpecCP.

[15] An additional complicating factor for Probe-Goal Agreement in imperatives is that in many imperative clauses, valuing features in C˚ via Probe-Goal Agreement is excluded on external grounds, namely because of the presence of the unvalued *pro* subject. However, in principle, there can be Probe-Goal Agreement between C˚ and a Goal – see e.g. Van Craenenbroeck and Van Koppen (2003) for an example of Agreement between the imperative verb and a raised object.

(14) Den Besten structure

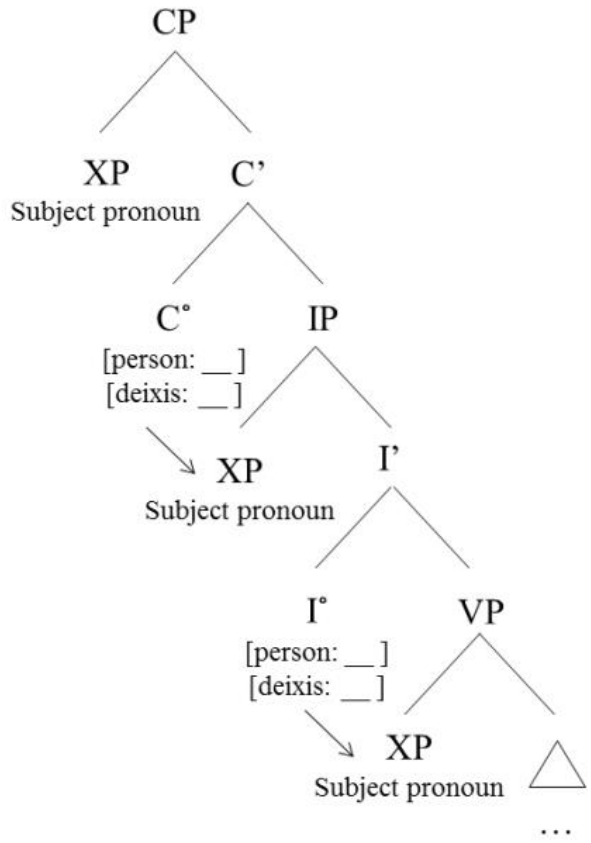
SpecCP	**C°**	**SpecIP**	**I°**
(Du)	Löp-s	(Dich)	

(15) Zwart structure

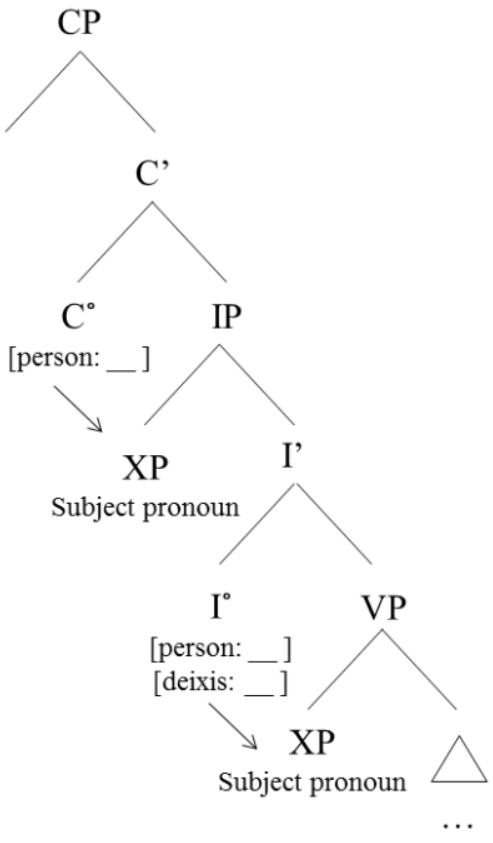
SpecCP	**C°**	**SpecIP**	**I°**
	(loop)	Jij	(loop-t)

In previous work, I proposed to formalize this distinction in terms of features (Van Alem 2016). More specifically, I proposed that the set of unvalued features in C° is defective in Zwart dialects, but not in Den Besten dialects, resulting in the inability to distinguish 1P from 2P at the point of Agreement. The earlier proposal involved a binary feature representation. In the framework used here, specifically the representation of features, this proposal should be rephrased as follows. In Den Besten dialects, C° has [person: __] and [deixis: __] (and [number: __]). In Zwart dialects, C° only has [person: __] (and [number: __]), but not [deixis: __] (in contrast to I°, that is not defective). The structural representations of Den Besten and Zwart dialects are given in (16, 17).

(16) Den Besten structure



(17) Zwart structure



At the point of Spell Out, affixes are inserted that are the best match to the features specified in the head where the verb is realized.[16] In Den Besten dialects, this is rather straightforward: in all VS and SV clauses, the verb is realized in C˚, and C˚ is not defective; in other words, affixes corresponding to every possible combination of valued features may be inserted. The case of Zwart dialects is somewhat more complicated. In SV word order, i.e. when the verb is realized in I˚, all possible feature combinations can be identified, and the corresponding affixes inserted. When the verb is realized in C˚, this is not the case, because of the absence of unvalued *deixis*. Specifically, 1P and 2P pronouns cannot be distinguished anymore. How does this then work at the point of Spell Out? As explained above, the VI that has the best match with the morphosyntactic features on the head will be inserted. Let us look at the inflectional paradigm of Standard Dutch to see to which features VIs correspond (table 12).[17]

Table 12: Inflectional paradigm Standard Dutch (SV word order)

	Singular	**Plural**
1P	∅	-e
2P	-t	-e
3P	-t	-e

Given the feature system of pronouns (repeated in table 13), I take the features specifications of the affixes to be as in (18).

Table 13: Feature system of personal pronouns

Pronoun	**Features**
1P	[person:] [deixis:]
2P	[person:] [deixis: distal]
3P	[person: non-participant] [deixis: distal]

(18) ∅ ⇔ [person:], [deixis:], [number:]
-e ⇔ [number: plural]
-t ⇔ elsewhere

Now, if there is Agreement in C˚ with a 1P.SG pronoun or a 2P.SG pronoun, C˚ will receive the value [person:] (and [number:]). Given the specifications in (18), the best match to this set of features is ∅ (because it matches all the features present in C˚, and has only one feature

[16] Where "best match" should be formalized as some kind of Closest Match Principle (i).

(i) Closest Match Principle (Boef 2013: 71)
The phonological exponent of a Vocabulary Item is inserted into a node if the item matches *one or more* of the grammatical features specified in the node. Where several Vocabulary Items meet the conditions for insertion, the item that matches the *greatest number* of features specified in the node and that contains the *smallest number* of features unspecified in the node must be chosen.

[17] I assume that the ∅ affix is a true affix (or, perhaps, a phonologically reduced schwa, similar to the 1P.SG schwa affix in Dutch dialects and earlier stages of Dutch).

that C˚ is not specified for; the other affixes are not a match to the features in C˚ or are selected as a "last resort" (the elsewhere affix)). As a result, the ∅ affix will be inserted in contexts where there is Agreement with a 1P.SG pronoun *and* where there is Agreement with a 2P.SG pronoun. For clarity, let us also consider what happens in SV word order, when the verb is in I˚. I˚ has a full set of features: [person: __] and [deixis: __] (and [number: __]). When I˚ agrees with a 1P.SG pronoun, it gets the following values for those features: [person:], [deixis:], [number:]. This is a perfect match to the features on the ∅ affix, hence ∅ will be inserted. When I˚ agrees with a 2P.SG pronoun, its features get the following values: [person:], [deixis: distal] and [number:]. In this case, there is no match between the features on the ∅ affix and the features in I˚, because of the different values of *deixis*.[18] In the absence of a VI with matching features, the elsewhere affix needs to be inserted, resulting in -t inflection and a Double Agreement paradigm.

Why is this all relevant for the discussion of TII? Recall that in the previous section, I argued that imperative CPs need *i*[person:] and *i*[deixis: distal] features to get imperative force, and that there are two ways that the CP can get these features, either by movement of an element with valued interpretable features to the CP, or by forming a chain between matching interpretable but unvalued features in C˚ and uninterpretable but valued features on an element moved to CP. However, when C˚ does not have an interpretable *person* or *deixis* feature, the second option is principally excluded for that particular feature. Given the assumption that in Zwart dialects, C˚ does not have an *i*[deixis: __] feature, it can be excluded that the CP gets its feature *i*[deixis: distal] via chain formation with an uninterpretable *deixis* feature. The only remaining option is moving an element with *i*[deixis: distal] to SpecCP. This places a significant restriction on TII. In Den Besten dialects, C˚ has both *person* and *deixis* features, making it possible to mark the CP as *i*[person:] and *i*[deixis: distal] via chain formation, posing no inherent restriction on TII.

3.3.2. Ablaut and the imperative verb

Recall that in section 3.2.3, I proposed that by default, the imperative verb is a root, without specification for any other feature. However, because of language specific properties, languages might deviate from the default. In this section, I will argue that one of the properties that lead to deviation from the default is ablaut.

Ablaut refers to the stem vowel change found in a set of verbs (strong verbs) in West-Germanic languages, depending on the conjugation. An example from German is given below (table 14). Here, we see ablaut in the present tense paradigm (2P.SG and 3P.SG have different stem vowels than the other person/number combinations), as well as to indicate past tense (stem vowel change from /e/ to /a/).

[18] But see Boef (2013:63-64), whose analysis implies that in this case, there would be a match, because the feature set in I˚ (specifically: [deictic: distal]) implies the feature set on the affix ([deixis:]). I do not see how such an analysis could work for verbal inflection: given the feature set on the ∅ affix [person:], [deixis:] and [number:], there is a predicted match with *all* pronouns, since all those features are underspecified. However, with none of the pronouns but 1P.SG, the ∅ affix is actually realized. I can only speculate that in cases where Boef assumes there to be a match between a [attribute: value] specification in syntax and a [attribute:] specification on the VI, the feature is in fact unspecified (absent) (like the case in C˚ in Zwart dialects outlined in the main text).

Table 14: Inflectional paradigm *geben* "to give" German

	Present tense	**Past tense**
1P.SG	Ich gebe	Ich g**a**b
2P.SG	Du g**i**bst	Du g**a**bst
3P.SG	Er g**i**bt	Er g**a**b
1P.PL	Wir geben	Wir g**a**ben
2P.PL	Ihr gebt	Ihr g**a**bt
3P.PL	Sie geben	Sie g**a**ben

It has been argued that ablaut (in contrast to umlaut) is a morphological phenomenon and not a phonological one (Wiese 1996). One of Wiese's arguments is that the vowel change in ablaut is fairly unpredictable, and cannot be described by one phonological rule. Therefore, if one were to put the source of ablaut in the post-syntactic component (i.e. morphological or phonological operations), a large number of rules would be needed, applying at unpredictable places. To illustrate this: German *geben* has ablaut but the phonologically maximally similar verb *leben* "to live" does not. I propose that in the DM framework used here, ablaut should be represented by different VIs corresponding to certain Root-feature combinations. To give an example, in German, ablaut occurs in the present tense with 2P.SG and 3P.SG. From the feature specification of pronouns formulated earlier and repeated in table 15, we can observe that the feature specifying both 2P.SG and 3P.SG is [deixis: distal]. Hence, the minimal assumption is that there is a VI corresponding to the feature bundle [Root [deixis: distal]] (i.e. the ablauted form) and a VI for [Root [deixis:]] (the non-ablauted form).[19] However, in section 3.2.2, I assumed that *deixis* is a dependent of *person*. This means that in addition to the *deixis* specification, there needs to be a *person* specification. Let us assume that this is the underspecified form, i.e. [person:]. The full specifications on the Roots would then be: [Root [person:] [deixis:]] for the non-ablauted form, and [Root [person:] [deixis: distal]] for the ablauted verb form.

Table 15: Feature system of personal pronouns

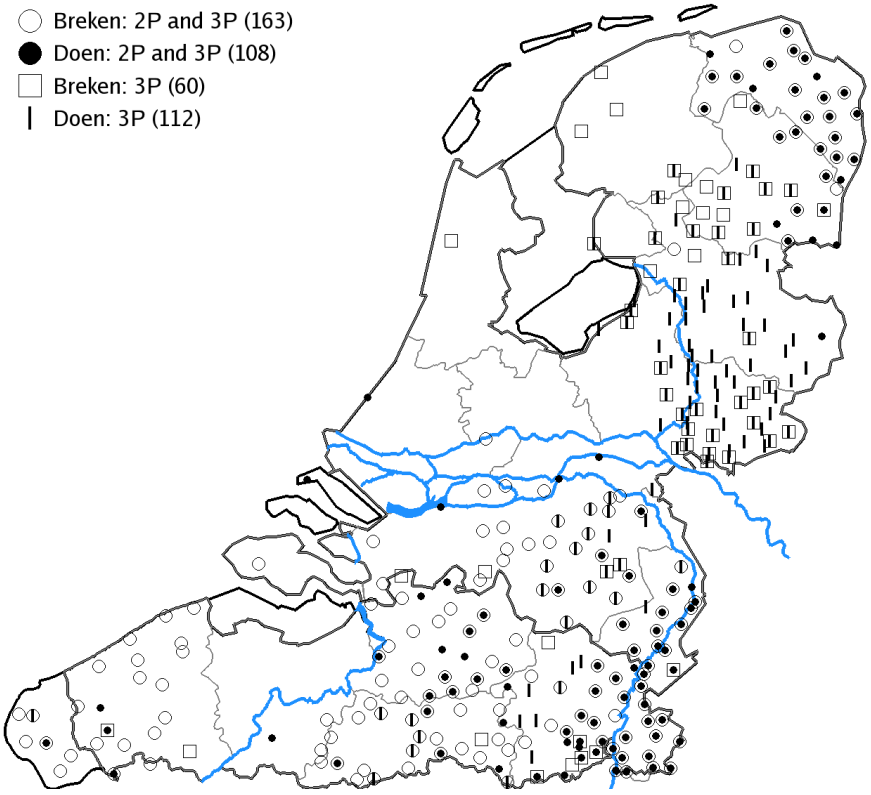
Pronoun	**Features**
1P	[person:] [deixis:]
2P	[person:] [deixis: distal]
3P	[person: non-participant] [deixis: distal]

Although ablaut is known as a West-Germanic phenomenon, it is not equally present in all Germanic language varieties. As shown above, German has ablaut in the present tense paradigms of strong verbs. This is not the case (anymore) in Standard Dutch and English.

[19] I am abstracting away from tense and number differences. A full feature specification should also include values for the features specifying these values, specifically for the ablauted Root (the non-ablauted Root can be unspecified).

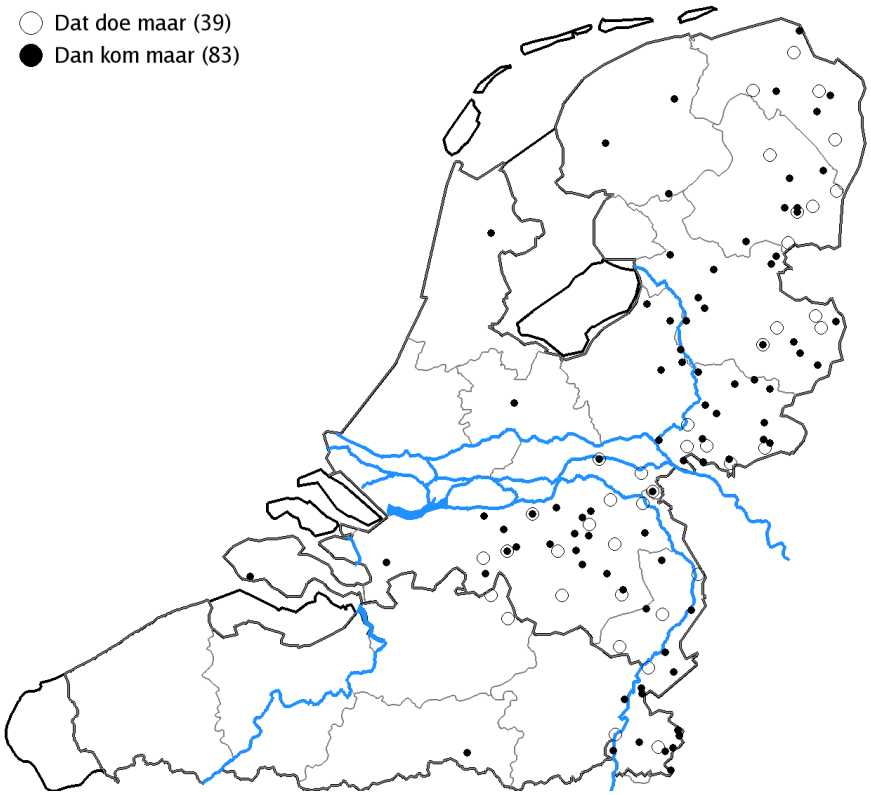
Some dialects of Dutch still have ablaut in the present tense, however. As we saw in chapter 2, this is also the case in the Eastern Dutch dialects (that allow TII) investigated in this thesis. In fact, there seems to be a very strong geographical correlation between ablaut in the present tense paradigm and TII, as shown in maps 8 and 9.[20]

Map 8: Ablaut present tense paradigm of *breken* "to break" and *doen* "to do" (data: De Schutter *et al*. 2005, henceforth GTRP)



[20] A couple of notes on the maps: The correlation does not hold in the Flemish language area, specifically Flemish Brabant and West-Flanders. In section 3.4, I will come back to this, and relate it to the observation that exactly these Flemish dialects have inflected imperatives. Furthermore, the density of dialects with ablaut seems much higher than the density of dialects with TII. This is due to the data that is available; the GTRP builds on data from 617 dialects, whereas the TII data from the SAND is based on 342 (*dan kom maar*) and 224 (*dat doe maar*) dialects. Finally, there are dialects that appear to have different ablaut patterns depending on the verb. I will not discuss this here, as the maps are mainly meant to show that there is a geographical overlap between ablaut and TII.

Map 9: Topicalization in imperatives of *dat* “that” and *dan* “then” (data: DynaSAND)



In chapter 2, we also saw that there is some variation regarding the location of ablaut in the verbal paradigm: some dialects have ablaut with 2P.SG and 3P.SG (like German), whereas other dialects only have ablaut with 3P.SG. Given the pronoun paradigm in table 15 above, ablaut with 3P.SG should be represented as follows. The feature specifying the difference between 1P and 2P on the one hand and 3P on the other hand is *person*. Thus, the ablauted VI is specified as [Root [person: non-participant]], whereas the non-ablauted VI corresponds to the specification [Root [person:]]. Because *person* is not a dependent of *deixis* (but the other way around), a *deixis* specification can be absent here.

Not only do dialects differ whether they have ablaut, and if so, where exactly in the verbal paradigm, but also if ablaut is also present on the imperative verb. Earlier, I proposed that by default, the imperative verb is fully unspecified. In that case, the VI corresponding to just the Root is inserted at Spell Out. However, if there is ablaut in the present tense paradigm, there is no Root VI; instead, there are multiple VIs corresponding to Roots with a further specification. That means that in language varieties with ablaut, the imperative verb comes with (a) specified feature(s) from the Formative List. Which features exactly are present on the imperative verb is determined by the where ablaut is found in the verbal paradigm, and if it is present on the imperative verb. The possible options are given in table 16. The corresponding features on the imperative verb are given in table 17. Recall that features on verbs are uninterpretable (Pesetsky & Torrego 2007); they are just there for proper Vocabulary Insertion.

Table 16: Possible combinations ablaut and imperative verb

	Ablaut 2P + 3P	**Ablaut 3P**
+ Ablaut on imperative verb	I	Not attested
- Ablaut on imperative verb	II	III

Table 17: Features on imperative verbs

Options	**Features on imperative verb**
Option I	*u*[person:] *u*[deixis: distal]
Option II	*u*[person:] *u*[deixis:]
Option III	*u*[person:]

The idea that features determining ablaut are specified in the Formative List receives further support if we look at Double Agreement paradigms. Consider again the account of Double Agreement by Van Alem (2016) and discussed here in section 3.3.1. If there is Agreement with a 2P.SG subject in VS sentences in Zwart dialects, the 1P.SG affix will be inserted. If Root morphology such as ablaut were dependent on morphological operations such as Agreement too, we would predict that not only the 1P.SG affix is inserted at this point, but also the 1P.SG Root. However, if we look at a Zwart dialect with ablaut with 2P and 3P, we can see that this is not the case: although it is the 1P.SG affix that is realized, the Root is still ablauted, corresponding to 2P.SG/3P.SG. This is illustrated with the dialect of Veghel in table 18. This pattern is exactly what follows if we assume that in dialects with ablaut, the features that determine the Root form are specified in the Formative List already (and do not come about as a result of Agreement), and that the Root attaches as such to the head on which it will be realized. The features on the head then determine the affix that is going to be realized on the Root.

Table 18: Partial inflectional paradigm *geven* "to give" Veghel

	Subject-Verb		**Verb-Subject**	
	Predicted under "ablaut is Agreement"	Observed	Predicted under "ablaut is Agreement"	Observed
1P.SG	Geef-Ø	Geef-Ø	Geef-Ø	Geef-Ø
2P.SG	Gif-t	Gif-t	**Geef-Ø**	**Gif-Ø**

In this section, I have discussed ablaut in West-Germanic languages. Ablaut is a morphological phenomenon and as such should be represented on the feature bundle coming from the Formative List. This means that dialects with ablaut in the present tense verbal paradigm deviate from the default of complete unspecification of the imperative verb. For which feature the Roots are specified is dependent on the location of ablaut in the paradigm.

3.3.3. Connecting the threads

In the previous two sections, I have discussed Dutch CPs and the morphosyntax of ablaut. In this section, I will show that these are the two components that explain TII in the dialects of Dutch that are investigated in this thesis, as well as unrestricted TII in German and the impossibility of TII in Standard Dutch.

For clarity, I will first summarize the most important points from the previous sections. Following Barbiers (2013), I assume that the imperative CP needs the features *i*[person:] and *i*[deixis: distal] to get imperative force. These features can be in both C˚ or SpecCP, as they will be shared via Spec-Head Agreement. I follow Postma (2011) and take that there are two types of Dutch dialects. In the Den Besten variant, C˚ has *i*[person: __] and *i*[deixis: __] features, whereas in the Zwart variant, C˚ only has *i*[person: __]. The defectiveness of C˚ in Zwart variants has the consequence that the imperative verb cannot, in principle, provide the CP with an *i*[deixis: distal] feature. Turning to ablaut, I argued that ablaut is represented on the Formative List as a specified uninterpretable feature attached to a Root, to provide the mechanism responsible for Spell Out with sufficient information as to which VI to insert (ablaut or non-ablaut). This feature is also present on the imperative verb. Which feature exactly is present on the imperative verb is language specific. The attested options are given in table 19. In language variants without ablaut, Roots do not come with specified features.

Table 19: Options of features on the imperative verb

Options	**Features on imperative verb**
Option I: Ablaut on 2P + 3P; ablaut on imperative verb	*u*[person:] *u*[deixis: distal]
Option II: Ablaut on 2P + 3P; no ablaut on imperative verb	*u*[person:] *u*[deixis:]
Option III: Ablaut on 3P; no ablaut on imperative verb	*u*[person:]

The behavior of the language variants investigated in this study on ablaut, the imperative verb and their type are provided in table 20. The language variants can be grouped by their behavior of those properties; the five observed combinations are given the same labels in the rightmost column.

Table 20: Morphosyntactic properties of the language variants

	Ablaut 3P	**Ablaut 2P**	**Ablaut imp. verb**	***i*[deixis: __] in C˚**	**Combination**
Standard Dutch	-	-	xx	-	A
Scheemda	+	+	-	+	C
Odoorn	+	-	-	-	B
Ootmarsum	+	-	-	-	B
Winterswijk	+	-	-	-	B
Didam	+	-	-	-	B
Veghel	+	+	+	-	D
Bergeijk	+	+	+	-	D
Someren	+	+	+	-	D
Tegelen	+	+	-	+	C
Heerlen	+	+	-	+	C
Standard German	+	+	+	+	E

Let us look at the language specific properties in the light of the background outlined above per combination, and the predictions that it makes regarding TII. Combination A is the Standard Dutch case. There is no ablaut in the verbal paradigm. This means that the imperative verb is just a Root, without any specified feature. When the imperative verb moves to C˚, it cannot value C˚'s *i*[person: __] feature. However, the imperative needs *i*[person:] and *i*[deixis: distal] to get imperative force. In order to get those features, I propose that a phonologically null imperative operator with these features moves to (or merges in) SpecCP (cf. Barbiers 2007 for a similar idea). As a result, SpecCP is occupied, excluding further topicalization.

Combination B has ablaut with just 3P. The imperative verb does not have ablaut. This corresponds to option III in table 19. Therefore, we take the imperative verb to have a *u*[person:] feature. If the imperative verb moves to C˚, it can value the *i*[person: __] feature in C˚. As a result, the CP has a *i*[person:] feature in C˚. In order to get imperative force, the CP only still needs a *i*[deixis: distal] feature. One way of getting this feature into the CP is by moving an element with *i*[deixis: distal] to SpecCP. This results in an imperative with restriced topicalization.

Combination C and D both have ablaut with 2P and 3P. In the combination C dialects, the imperative does not have ablaut. Given table 19, this means that the imperative has a *u*[person:] and an *u*[deixis:] feature (option II). Because combination C dialects are Den Besten dialects, they have both an *i*[person: __] as well as an *i*[deixis: __] feature in C˚. These features will take over the [person:] and [deixis:] values from the imperative verb. Although the CP does have an *i*[person:] feature because of this, it still needs *i*[deixis: distal] to mark the sentence as imperative. An element valued with that feature needs to move to SpecCP, leading to restricted topicalization in imperatives. In combination D dialects, the imperative has ablaut. This corresponds to Option I in table 19: the imperative verb has *u*[person:] and *u*[deixis: distal]. Combination D dialects are Zwart dialects: there is an *i*[person: __] feature, but not an *i*[deixis: __] feature in C˚. If the imperative verb moves to C˚, only *i*[person: __] will be valued in C˚. The verb does provide an uninterpretable [deixis: distal] feature, but because the CP needs interpretable features to get imperative force, it is still necessary that an element with interpretable [deixis: distal] moves to C˚, again leading to restricted topicalization.

Finally, Combination E (Standard German) has ablaut with 2P and 3P and ablaut on the imperative verb, and is very similar to combination D dialects in this respect. However, German is a Den Besten language variant. C˚ has both *i*[person: __] and *i*[deixis: __]. When the verb (valued for *u*[person:] and *u*[deixis: distal]) moves to C˚, it values both interpretable features in C˚, providing the CP with the features that are required to indicate that the sentence is an imperative (i.e. *i*[person:] and *i*[deixis: distal]). SpecCP is open for other elements, leading to the possibility of unrestricted topicalization.[21]

Let us look at the topicalization behavior of the language varieties under discussion to evaluate the predictions that the analysis makes. Table 21 provides per language variety the

[21] Note that TII is optional in the dialects that allow it. If there is no TII, I assume that the imperative operator (that is independently assumed in no TII dialects) moves to SpecCP to provide the clause with the desired features.

combination, the predicted TII behavior and the observed TII behavior. The last column indicates whether the prediction is borne out. The proposed analysis predicts the right pattern of TII in 10 out of 12 language variants. Only the dialects of Scheemda and Ootmarsum behave differently than expected. I will come back to this in section 3.4.

Table 21: Predicted and observed TII behavior per language variety

	Combination	**Predicted TII**	**Observed TII**	**Prediction borne out?**
Standard Dutch	A	No TII	No TII	✔
Scheemda	C	Restricted TII	No TII	✘
Odoorn	B	Restricted TII	Restricted TII	✔
Ootmarsum	B	Restricted TII	No TII	✘
Winterswijk	B	Restricted TII	Restricted TII	✔
Didam	B	Restricted TII	Restricted TII	✔
Veghel	D	Restricted TII	Restricted TII	✔
Bergeijk	D	Restricted TII	Restricted TII	✔
Someren	D	Restricted TII	Restricted TII	✔
Tegelen	C	Restricted TII	Restricted TII	✔
Heerlen	C	Restricted TII	Restricted TII	✔
Standard German	E	Unrestricted TII	Unrestricted TII	✔

The current analysis contrasts with the analysis by Barbiers (2013) on the following points. First, it differs in the analysis and effects of ablaut. Whereas Barbiers does observe that ablaut plays a role, because it is ablaut that makes German imperative strong verbs unique, he does not connect ablaut on the imperative verb to ablaut in the general verbal paradigm, thereby missing the direct relation between location of ablaut in the verbal paradigm and the feature composition of the ablauted form. In addition, Dutch dialects can also have ablaut in the present tense paradigms, which is not discussed by Barbiers, whereas there appears to be a strong correlation between ablaut and TII. Second, Barbiers analysis takes the subject to be involved in marking the imperative verb for a particular feature in restricted TII dialects, which forces him to make untestable claims because the subject in imperatives is generally not realized. By putting the locus of the marking on the imperative verb itself, the number of abstract operations reduces, making it easier to test the hypotheses. If we compare the analysis put forward here to that by Barbiers, we can see that my analysis has a wider empirical coverage: Barbiers' analysis makes the correct prediction regarding TII for 8 of the 12 language variants discussed in this chapter (see table 22), compared to 10 out of 12 dialects under my account. Note also that the status of the double grammar dialects is very weak or unclear, since in all dialects with a double grammar, participants indicated that its use is very

rare and semantically marked. Whereas in the current evaluation of Barbiers' analysis, I take this status to be enough evidence for a double grammar, this might not even be the case.

Table 22: Predicted (Barbiers 2013) and observed TII behavior per language variety

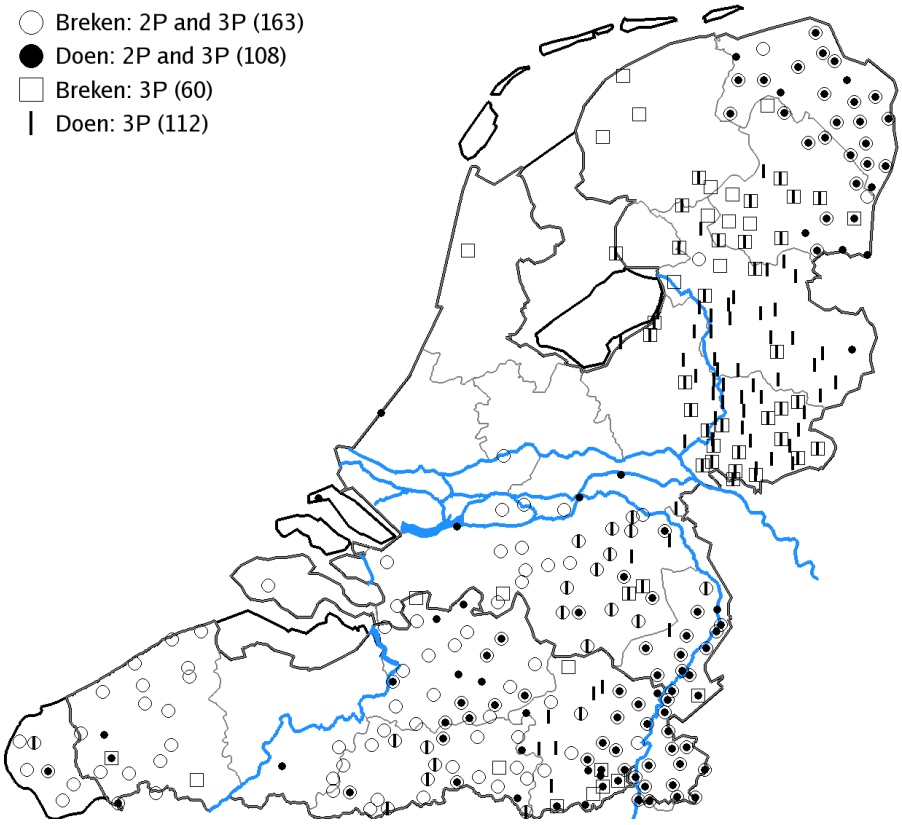
	PSI	**Double grammar**	**Unique imperative verb**	**Predicted TII**	**Observed TII**	**Prediction borne out?**
Standard Dutch	-	-	-	No TII	No TII	✔
Scheemda	-	-	-	No TII	No TII	✔
Odoorn	-	+	-	Restricted TII	Restricted TII	✔
Ootmarsum	-	+	-	Restricted TII	No TII	✘
Winterswijk	-	+	-	Restricted TII	Restricted TII	✔
Didam	-	-	-	No TII	Restricted TII	✘
Veghel	+	-	-	Restricted TII	Restricted TII	✔
Bergeijk	+	-	-	Restricted TII	Restricted TII	✔
Someren	+	-	-	Restricted TII	Restricted TII	✔
Tegelen	-	-	-	No TII	Restricted TII	✘
Heerlen	-	-	-	No TII	Restricted TII	✘
Standard German	-	-	+	Unrestricted TII	Unrestricted TII	✔

3.4. Discussion

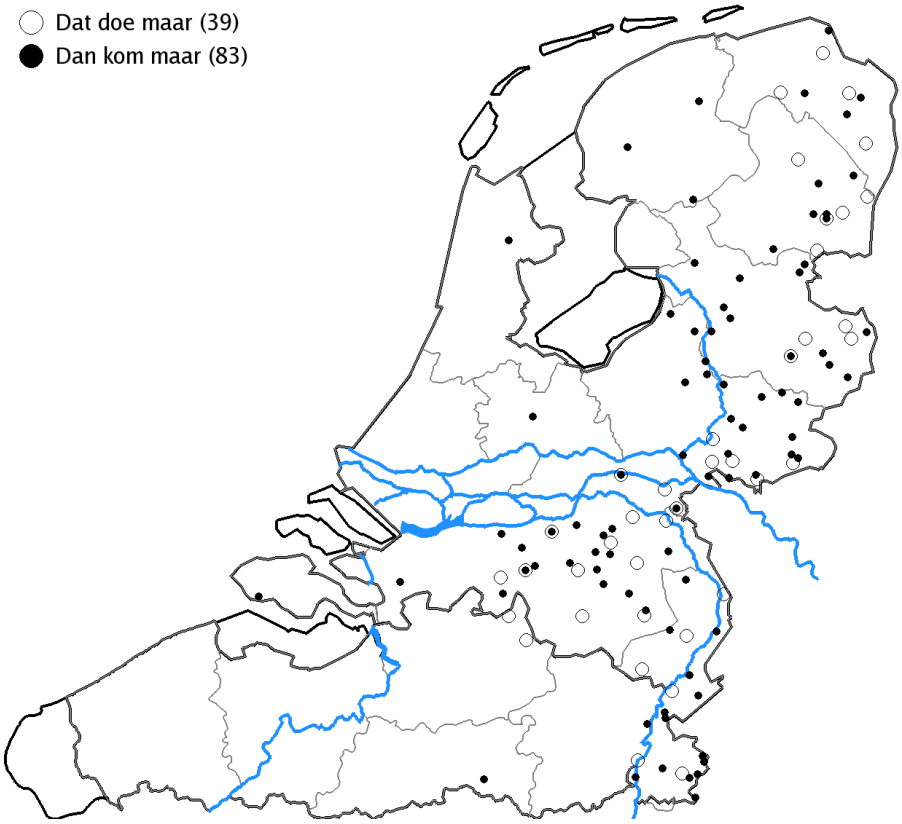
The previous sections have outlined the analysis of TII in West-Germanic language varieties. Although the analysis has a significant empirical coverage, there are some theoretical as well as empirical issues that have not been addressed properly. In this section, I will discuss those problems, and some (possible) solutions.

Let us first look at the empirical issues. In section 3.3.2, we saw that there is fairly large set of Flemish dialects that does have ablaut in the present tense verbal paradigm, but no TII (see maps 8 and 9, repeated as maps 10 and 11). Because Flemish dialects are Zwart dialects, the prediction is that they would allow restricted TII. They are thus counterexamples to the proposed analysis, that claims that there is a direct relation between ablaut and TII.

Map 10: Ablaut present tense paradigm of *breken* “to break” and *doen* “to do” (data: GTRP)

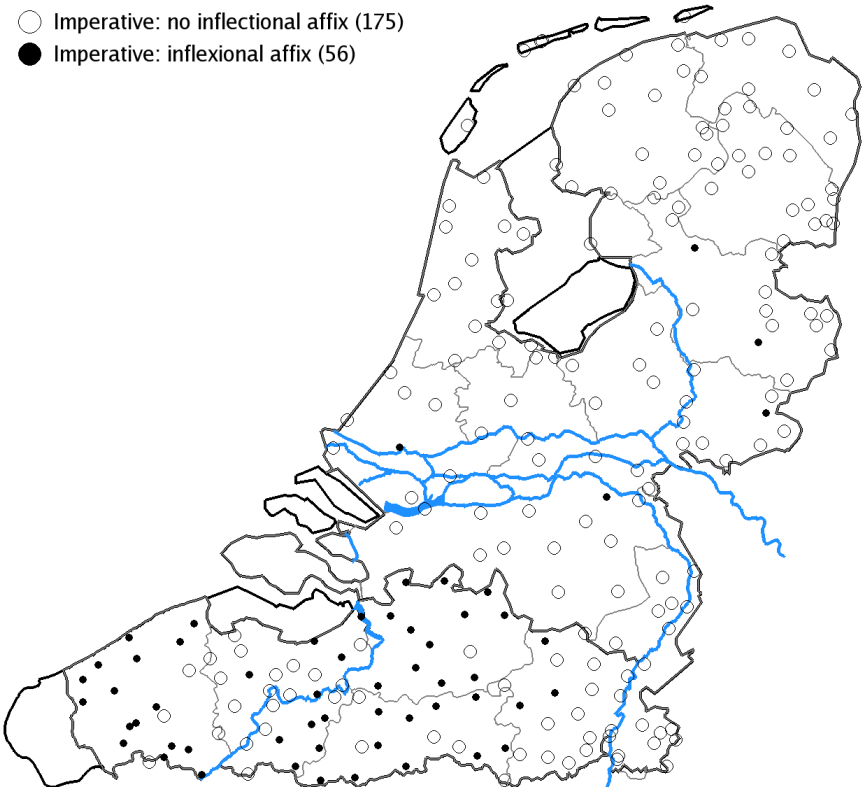


Map 11: Topicalization in imperatives of *dat* “that” and *dan* “then” (data: DynaSAND)



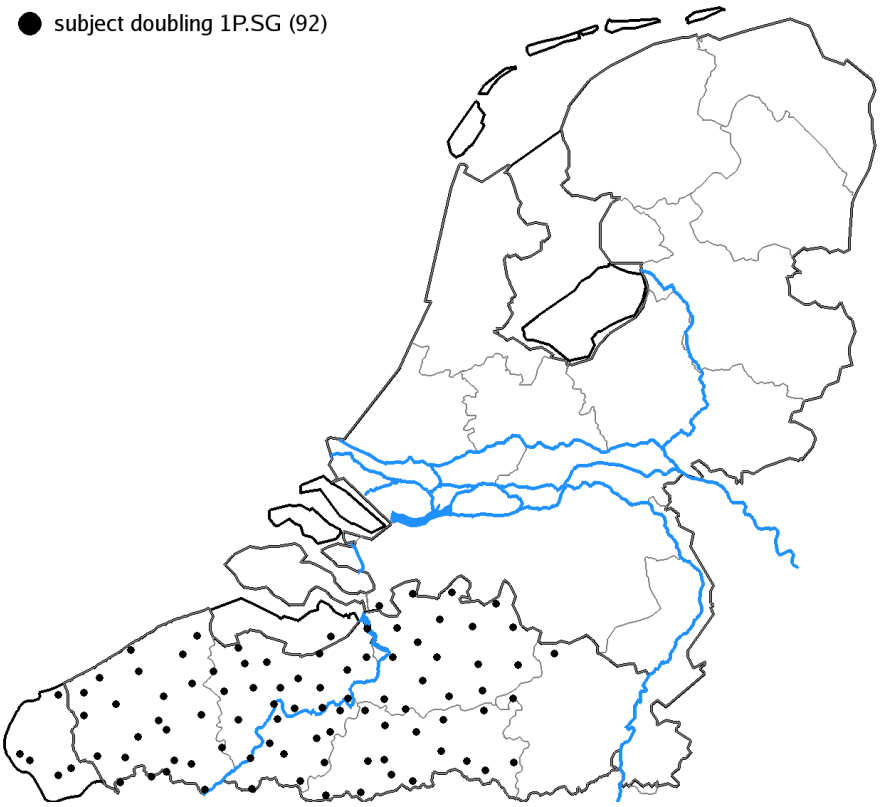
However, there appears to be an additional factor involved in these dialects. In the majority of Dutch dialects, the verb that is used as imperative is bare. This does not hold for the Flemish dialects that have ablaut: these dialects do have an inflectional (*–t*) affix on the imperative verb. This is illustrated on the map in 12. Furthermore, all dialects that have the inflected imperative, also have subject doubling. This is illustrated in map 13 for the 1P.SG pronoun. An example of subject doubling is given in (19, from DynaSAND). I propose that subject doubling is the source of the impossibility of TII in Flemish dialects, because in combination with TII, it leads to a Relativized Minimality violation (Rizzi 1990, 2001).[22]

Map 12: Inflection on imperative verb for *leven* "to live" (data: DynaSAND)



[22] Thanks to Norbert Corver (p.c.) for suggesting this analysis to me.

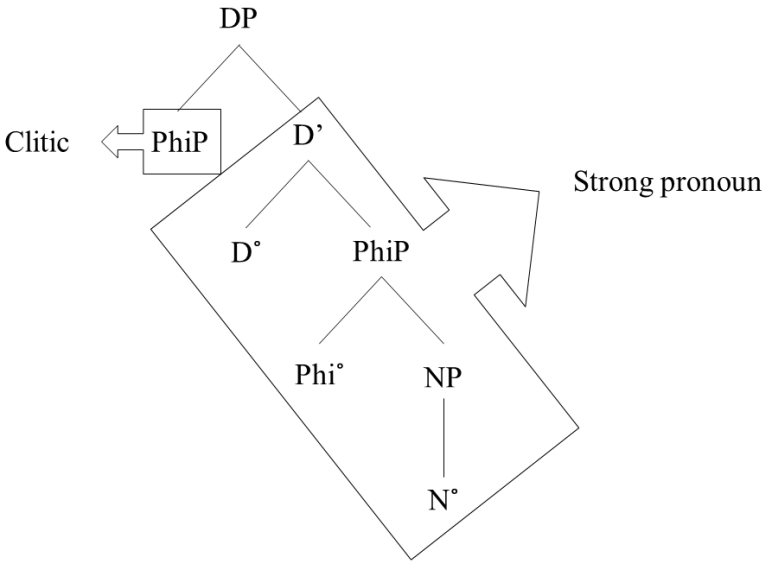
Map 13: subject doubling 1P.SG (data: DynaSAND)



(19) ‘k geloof da- k- ik groter benne of- ij. Oosteeklo Dutch
I believe that-I_{CLITIC}-I_{STRONG} bigger am than-he
“I believe that I am bigger than him.”

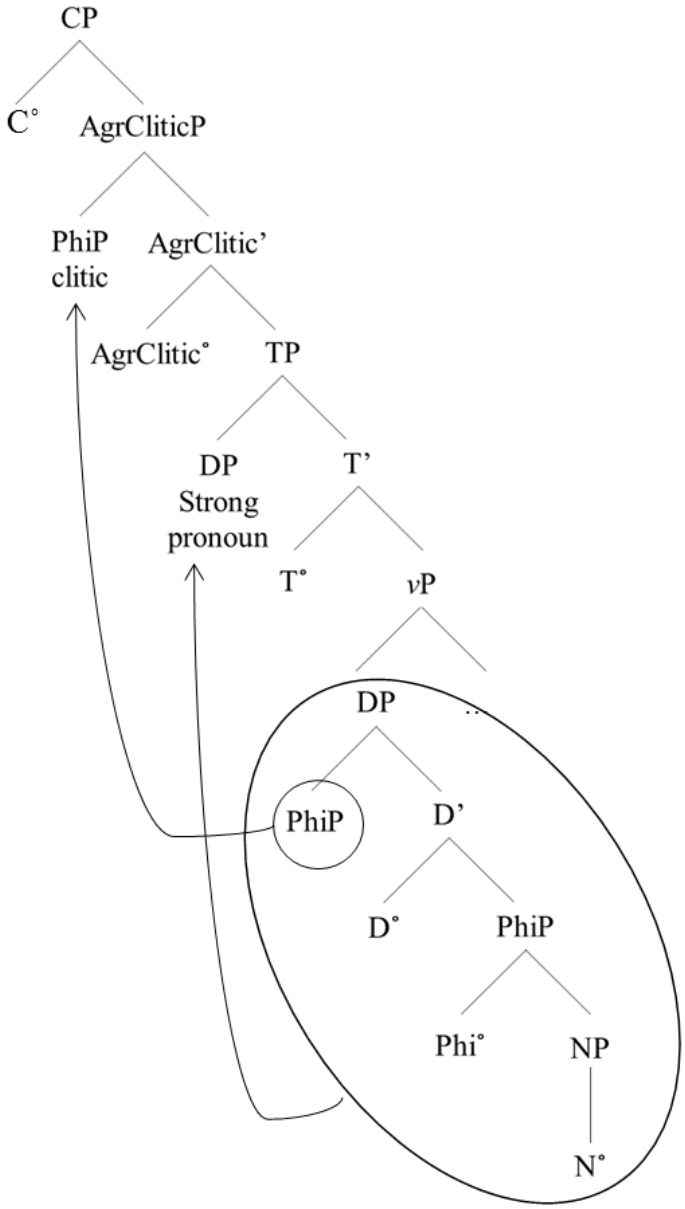
Subject doubling in Flemish dialects has been analyzed by Van Craenenbroeck and Van Koppen (2008) as a double spell out of parts of the complex subject DP: PhiP is realized as the weak subject (or the clitic) (after movement to the SpecDP), whereas the structure under D’ is spelled out as the strong pronoun. This is schematically represented in (20).

(20) Subject doubling DP (adapted from Van Craenenbroeck & Van Koppen 2008: 19)



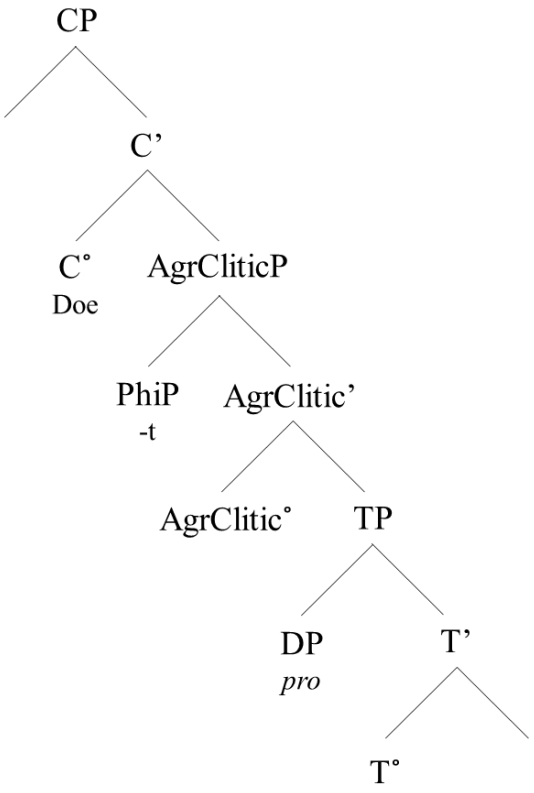
The different parts of the subject move to different positions in the sentential structure. Specifically, the weak subject moves to a projection right under C° (dubbed "AgrCliticP"), allowing the weak subject to cliticize to C°. The strong pronoun moves to SpecTP. These operations are illustrated in (21).

(21) Full structure subject doubling (adapted from Van Craenenbroeck & Van Koppen 2008: 22)



Subject doubling in Flemish is attested with all person/number combinations in pronouns (although not every dialect has doubling with all pronouns). Taking *pro* in imperatives also as a pronoun, by analogy, we can formulate the hypothesis that doubling also occurs with *pro*. However, *pro* is generally invisible, making it impossible to see subject doubling of *pro*. I would like to propose that in imperatives, there is an exception to this, and that the *–t* inflection on the imperative verb is in fact a lexicalization of the weak pronoun that cliticizes to C°. The derived structure is partially depicted in (22).

(22) Subject doubling *pro*



Recall from the discussion in section 3.2.3 that I assumed *pro* to have unvalued *person* and *deixis* features – I take that this also holds for its cliticized form (spelled out as *–t* in the imperative). Now, consider the definition of Relativized Minimality in (23).

(23) Relativized Minimality (Rizzi 2001: 90)
Y is in a Minimal Configuration (MC) with X iff there is no Z such that
(i) Z is of the same structural type as X, and
(ii) Z intervenes between X and Y

Relativized Minimality puts a constraint on the locality of movement operations: an element X cannot move over an element Z of the same type. Under the analysis of inflection on imperatives in Flemish dialects as the spell out of the doubled clitic *pro*, this is exactly what happens when there is TII in Flemish dialects: the topicalizing element X moves over the clitic *pro* in SpecAgrCliticP (Z), and because *pro* and X are of the same type (both pronouns; both with a *deixis* feature) is *pro* an intervener between X and its trace, excluding TII.[23]

In addition to the Flemish dialects that are an exception to the proposed analysis, there are two dialects specifically investigated in this study that do not behave as predicted:

[23] There is one issue left with this explanation on the ban of TII in Flemish. In the next chapter, I will argue that temporal adverbials do not move to SpecCP but that they are base-generated there. If this is correct, then a Relativized Minimality violation does not occur when temporal adverbs are fronted, leading to the prediction that this is possible in Flemish dialects. However, the data show that TII is never attested in Flemish dialects. At this point, I cannot account for this observation, and I leave it for further research.

Scheemda and Ootmarsum. In both locations, speakers reported not to allow TII, whereas this is predicted by the analysis. A principled explanation why these dialects deviate from the predicted pattern is not immediately available. However, there are some circumstantial indications why this might be the case. In Scheemda, the informants indicated that ablaut is rapidly disappearing from the dialect. According to the informants, the younger generation of dialect speakers does not use ablaut anymore, and even the participants themselves sometimes did not. This might influence TII in two ways. First, ablaut might have become a relic of an earlier productive system, and as such does not have an effect on the syntax anymore. Second, if the younger generation does not have the ablaut paradigm as part of their grammar, and therefore TII is excluded, TII could have become so rare in the language that speakers judge it as not occurring. In Ootmarsum, the deviation from the predicted pattern might have arisen due to task effects. In Ootmarsum, only two listening participants were able to take part in the interview, possibly too little to get real judgements on TII. Furthermore, TII was not judged as being completely ungrammatical in Ootmarsum, since there are three sentences of which one of the speakers thought they were grammatical.[24] Also note that in the data from DynaSAND, Ootmarsum is one of the locations were TII is reported to be grammatical (*dat doe maar*). All in all, these considerations point to reasons external to the proposed analysis for the observed impossibility of TII in Scheemda and Ootmarsum.

One might wonder what happens in imperative clauses with weak verbs, i.e. verbs that do not have ablaut. There are no indications that TII is not possible in these sentences, despite there not being a cause for a feature specification on the imperative verb. There are two ways around this (cf. Barbiers 2013). First, it might be that the feature specification on strong verbs is generalized to weak verbs. I think this is less desirable, because that implies that there are two identical VIs corresponding to different sets of features. The alternative is that marking on imperative CPs by strong verbs is so common that its syntactic effect is generalized to weak verbs. Although it is hard (if not impossible) to find evidence for this, I assume that something along these lines happens, possibly with the involvement of a statistical generalization mechanism. I leave the details for further work.

3.5. Summary

This chapter discussed the option of TII in dialects of Dutch and German, within the framework of Distributed Morphology. I proposed that there are two variables involved in explaining the option of TII: whether a dialect has ablaut in its present tense verbal paradigm, and whether a dialect is a Den Besten or a Zwart variant. I argued that ablaut is pre-morphological, i.e. the features determining the Root that needs to be inserted are specified in the Formative List. Because Den Besten variants have both unvalued *person* and *deixis* features in C˚, it can take over both values specified on the verb. In Zwart variants, this is principally excluded for the feature *deixis*, because Zwart dialects have no *deixis* feature in C˚ (but only *person*). So, depending on the ablaut patterns and the dialect type, it can be predicted for each dialect whether it should have TII or not. This is summarized in table 24.

[24] There was one sentence (containing the distal full NP *die doos* "that box") that was judged as occurring by both speakers, but there are other issues with this item, as discussed in chapter 2.

Table 24: The option of TII (summary)

	Features on imp. verb	**Zwart/Den Besten**	**Predicted TII**	**Prediction borne out?**
Standard Dutch	No	Zwart	No TII	✔
Scheemda	*u*[person:] *u*[deixis:]	Den Besten	Restricted TII	✘
Odoorn	*u*[person:]	Zwart	Restricted TII	✔
Ootmarsum	*u*[person:]	Zwart	Restricted TII	✘
Winterswijk	*u*[person:]	Zwart	Restricted TII	✔
Didam	*u*[person:]	Zwart	Restricted TII	✔
Veghel	*u*[person:] *u*[deixis: distal]	Zwart	Restricted TII	✔
Bergeijk	*u*[person:] *u*[deixis: distal]	Zwart	Restricted TII	✔
Someren	*u*[person:] *u*[deixis: distal]	Zwart	Restricted TII	✔
Tegelen	*u*[person:] *u*[deixis:]	Den Besten	Restricted TII	✔
Heerlen	*u*[person:] *u*[deixis:]	Den Besten	Restricted TII	✔
Standard German	*u*[person:] *u*[deixis: distal]	Den Besten	Unrestricted TII	✔

The predictions are borne out for the majority of dialects. Furthermore, I showed that the deviating dialects most likely do not behave as expected because of external factors.

4. Patterns of topicalization in imperatives

4.1. Introduction

In the previous chapter, variation regarding the optionality of TII was discussed and analyzed. In this chapter, the focus will turn to a subset of those dialects, namely the dialects that have restricted TII. It deals with the second subquestion formulated in chapter 1: How can the different patterns of restricted topicalization in imperatives be explained?

The chapter is built up as follows: in the next section (4.2), I will take a deeper look at the patterns of elements that can be fronted in imperatives, as observed from the data collection in chapter 2, and show that the variation can be reduced to a small set of properties. In section 4.3, I will provide an underlying explanation for those properties, based on the syntactic characteristics of Dutch CPs and DPs. Section 4.4 summarizes this chapter.

4.2. Identification of patterns

In chapter 2 of this thesis, the categories of elements that can topicalize in each dialect were identified. For convenience, those results are repeated in table 25.

Table 25: Summarized TII results per dialect

	Proximal pronoun		**Proximal full NP**	**Distal pronoun**		**Distal full NP**
	Temporal	Other		Temporal	Other	
Scheemda	-	-	-	-	-	-
Odoorn	-	-	-	+	-	-
Ootmarsum	-	-	-	-	-	-
Winterswijk	-	-	-	+	+	+
Didam	-	-	-	+	-	-
Veghel	+	+	-	+	+	-
Bergeijk	-	-	-	+	+	-
Someren	-	-	-	+	+	-
Tegelen	+	-	-	+	-	-
Heerlen	+	-	-	+	-	-

These results show that there is a considerable amount of variation in the categories that can topicalize across the different dialects. However, some patterns can be identified. These patterns are given in table 26, with the corresponding dialects.

Table 26: Patterns of TII

Pattern	**Topicalized elements**	**Dialect**
(i)	No topicalization	Ootmarsum, Scheemda
(ii)	Distal temporal pronoun	Didam, Odoorn
(iii)	Distal and proximal temporal pronoun	Heerlen, Tegelen
(iv)	All distal pronouns	Bergeijk, Someren
(v)	All distal and proximal pronouns	Veghel
(vi)	All distal pronouns and full NPs	Winterswijk

A reasonable hypothesis would be that different patterns of TII are related to the explanation of the option of TII. However, this does not seem to be the case. In the explanation of the optionality of TII, the dialects were grouped together as in table 27 (cf. chapter 3).

Table 27: Grouping of dialects in the option of TII

Combination	**Dialects**
B	Odoorn, Ootmarsum, Winterswijk, Didam
C	Scheemda, Tegelen, Heerlen
D	Veghel, Bergeijk, Someren

Comparing the groupings of the dialects from table 26 to that of table 27, there appears to be no direct correspondence between the combination a dialect belongs to and the pattern of TII that it shows; within one dialect combination, dialects can show different patterns of TII, and dialects not belonging to the same type do show the same TII pattern. It is therefore unlikely that the patterns of TII are a direct consequence of the properties of the dialect combination. An explanation based on the properties of the dialect combination does not appear to be favorable.

If we look at the patterns of TII, there are other ways to reduce the initial complexity. The first observation is that if a dialect has TII, the distal temporal pronoun *dan* "then" can be topicalized. Let us take this as the least marked or default form of TII. From topicalization of distal temporal pronouns, there can be different expansions. First, there can be an expansion to the full set of distal pronouns. This can be captured by the (descriptive) parameter ± topicalization of non-temporal elements. Second, topicalization can be expanded to proximal elements, deriving topicalization of all temporal pronouns and topicalization of all proximal and distal pronouns. This can be derived by another parameter: ± topicalization of proximal elements. Finally, if there is a + value for the ± topicalization of non-temporal elements parameter, there can be an expansion from topicalization of pronouns to topicalization of full NPs, with the parameter ± topicalization of full NPs – in other words, having the possibility of topicalizing full NPs implies having the possibility of topicalizing the corresponding pronouns. The observations are summarized in (24).

(24)
(i) Topicalization of the distal temporal pronoun *dan* is the default.
(ii) ± topicalization of non-temporal elements
(iii) ± topicalization of proximal elements
(iv) ± topicalization of full NPs

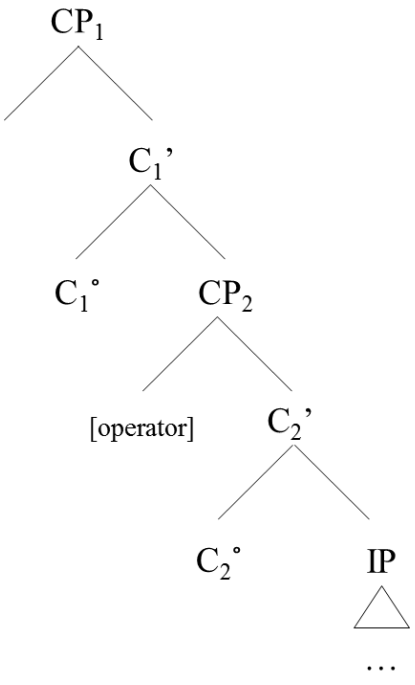
An account that explains the descriptive properties in (24), can derive all observed patterns of TII. Also recall that restricted TII requires the presence of a focus marker (such as *maar*). It would be desirable to also take this into account in the explanation of the patterns of TII. In the following sections, I will give a syntactic explanation for these descriptive properties of restricted TII.

4.3. Explaining the patterns

4.3.1. Theoretical background

In chapter 3, I argued that in restricted topicalization, an element valued for *i*[deixis: distal] moves to SpecCP. However, in that chapter, the focus was on morphosyntactic features, while I remained agnostic about the exact technicalities of "movement" and "SpecCP". In order to fully understand TII, however, an explicit theory about CP and the trigger for movement to CP is necessary. I assume, following Hoekstra and Zwart (1994), Bennis (1997) and Van Craenenbroeck (2004) (among others), that the Dutch CP domain should be split up into two projections that each have their own function. Specifically, I follow Van Craenenbroeck and take up the assumption that the lowest CP layer (CP_2, in his terminology) is an operator position. This is formalized by the assumption that the CP_2 layer has an operator feature that needs to be checked by an element that qualifies as an operator, and as such, is a trigger for movement.[25] Only minimal phrases (such as bare wh-pronouns) are operators and can move to $SpecCP_2$ (Van Craenenbroeck). Finally, I follow Van Craenenbroeck's assumption that non-operator phrases (i.e. complex phrases such as which girl) are base-generated in $SpecCP_1$.[26] If this is the case, a covert operator moves to $SpecCP_2$ to create and operator-variable dependency and check the operator feature. This gives us the schematic structure of CP in (25).

(25)



[25] Note that this feature is different from the morphosyntactic features discussed in chapter 3. Without getting into too much detail, I see it as a purely syntactic feature, responsible for syntactic operations like Merge and Move.

[26] In Van Craenenbroeck's system, CP_1 is responsible for clause typing. This is not compatible with the idea I am entertaining here, that imperative force is derived by the presence of the features *person* and *distal*. Since the CP_1 does not play a significant role in the remainder of this chapter, I leave it an issue for further research to see how to reconcile these ideas.

Assuming that in imperative clauses, the verb is in C°_2, there are two ways to front an element in the imperative: either by moving something to $SpecCP_2$, or by base-generating something in $SpecCP_1$. I assume that in restricted TII dialects, topicalization is always movement to $SpecCP_2$ – in other words, it is always operator movement. Possibly, this should be formally implemented by positing that the *person* and *distal* features, providing the clause with imperative force, should be present on CP_2. I will postpone a further discussion of the difference between movement to $SpecCP_1$ and $SpecCP_2$ to section 4.3.6.

4.3.2. Why temporal adverbs are the default

This section deals with the observation that if a dialect allows TII, it allows topicalization of the distal temporal adverb *dan* "then". In other words, topicalization of *dan* seems to be the least marked form of TII.

Up until this point, temporal adverbs and demonstrative pronouns have been discussed as a single category. Partially, this seems to be correct: both temporal adverbs and demonstratives are deictic elements, that I take to have an interpretable value for *deixis*. These values are given in table 28.

Table 28: *Deixis* feature on demonstrative pronouns and adverbs

Relation to deictic center	**Pronoun/adverb**	**Feature**
Proximal	Dit, deze, hier, nu/nou	*i*[deixis:]
Distal	Dat, die, daar, dan	*i*[deixis: distal]

However, temporal adverbs and demonstratives also show differences, not only in their TII behavior, but also in other contexts. First, *dan* (and *nu/nou* "now") is an adverb, whereas *daar* "there", *dat* "that", and *die* "that" (and their proximal counterparts) can function as arguments.[27] Furthermore, *dan* and *nu/nou* appear to be multifunctional: apart from their function as temporal adverb, they have many other functions, such as modal particle (26, 27), complementizer or part of a connective phrase (28, 29), and together they can even be used an as exclamative (30).

(26) Stop er dan ook mee!
Stop there then also with
"Just stop it!"

(27) Stop er nou mee!
Stop there now with
"Just stop it!"

(28) Nu je klaar bent, kun je gaan.
now you ready are, can you go
"Now you're ready, you can go."

[27] I assume that *daar* is an oblique case-marked form of the demonstrative pronoun, cf. Van Kampen (2007).

(29) Als je jarig bent, dan krijg je cadeaus.
if you having.your.birthday are, then get you presents
"When it is your birthday, you get presents."
(30) Nou dan!
now then
"Well then!"

In the cartographic line of research (e.g. Rizzi 1997, Cinque 1999), multifunctionality of elements is implemented by assuming that elements can be base-generated in different functional projections, corresponding to their different uses. Cinque (1999: 12-13) notes that also in Italian, *ora* "now" and *allora* "then" ("speech time adverbs") have a notably free distribution, in that they can precede and follow certain adverbs, and in that they can appear in the left-most position of the sentence. Regarding this last observation, he proposes a Topic position where speech time adverbs can be base-generated. Let us take this suggestion literally, and assume that this Topic position is part of the CP domain, specifically the CP_2 in (25). It follows then immediately why topicalization of speech time adverbs is the default: under the assumption that Merge is less costly than Move (Chomsky 2000), base-generating the speech time adverb *dan* in topic position is the most economical way of providing CP with its desired *distal* feature. This implies that topicalization of speech time adverbs is not real topicalization at all.

The analysis that speech time adverbs can be generated in $SpecCP_2$ implies that they are operators, since $SpecCP_2$ is an operator position. I take this to be the case; possibly, this is related to their *deixis* feature (cf. *infra*). Furthermore, I propose that this property of speech time adverbs is the factor that distinguishes them from other temporal adverbs, such as *Monday*, that cannot be base-generated in $SpecCP_2$ position (as they cannot topicalize in imperatives). Because speech time adverbs (but not other temporal adverbs) are operators, only they can be base-generated in $SpecCP_2$ position, and therefore only they can topicalize in imperatives.

As observed by Barbiers (2013), a focus marker is obligatorily present in sentences with restricted TII. He proposes that this is related to movement of the topicalized element. However, if speech time adverbs are truly base-generated in $SpecCP_2$ position, then there is no movement at all, and it is therefore unclear what the relation with this focus marker is, and why its presence is obligatory. Rather, the base-generation analysis predicts that the focus marker can be absent in imperatives with a topicalized speech time adverb. Although I have not tested this systematically, a Google search led to several examples of TII of *dan*, but without a focus marker (31-33), indeed showing that when a speech time adverb is topicalized, a focus marker is not necessary.

(31) (Als je het dus niet eens bent met deze wetgeving,) dan ga daar klagen.
If you it so not agree are with this legislation, then go there complain
"If you don't agree with this legislation, then complain there."
(32) (Als je het kunt,) dan doe het.
If you it can, then do it
"If you can, then do it."

(33) Dan help hem niet.
Then help him not
"Then don't help him"

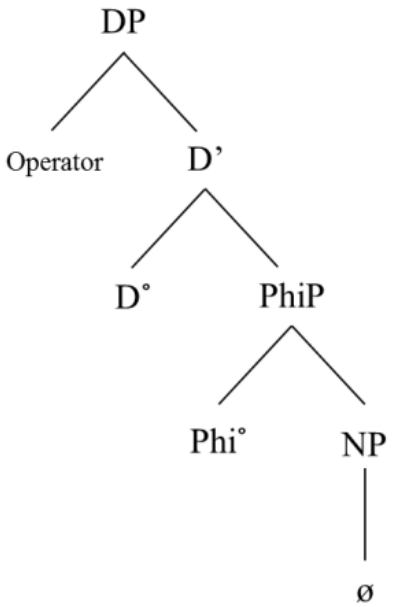
I conclude that topicalization of speech time adverbs is not true topicalization, but rather base-generation of the adverbs in SpecCP_2 position. By this, the speech time adverb can provide the CP with a *distal* feature. This analysis explains the observation that in all dialects that allow TII, speech time adverbs can topicalize.

4.3.3. ± topicalization of non-temporal elements

In this section, the contrast between dialects that only allow topicalization of speech time adverbs (Odoorn, Didam, Tegelen, and Heerlen), and dialects that also allow topicalization of demonstrative pronouns (Winterswijk, Veghel, Bergeijk, and Someren) is discussed. This corresponds to the descriptive parameter ± topicalization of non-temporal elements.

In the previous section, I showed that there are some differences between speech time adverbs and demonstrative pronouns, and argued that speech time adverbs can be base-generated in topic position, which makes (apparent) topicalization of speech time adverbs default. However, it is yet unclear why some dialects allow topicalization of demonstrative pronouns and why some do not. Let us start characterizing the topicalized elements. I follow Boef (2013) and assume that demonstrative pronouns have the structure in (34), with an operator in SpecDP.[28] The DP is realized as the demonstrative pronoun.

(34)



[28] Boef formulates this structure for A-bar pronouns, which proximal demonstratives arguable are not, since they cannot function as e.g. relative pronouns. However, I see no reason for them to be *structurally* different from distal demonstratives, but rather take this difference to derive from their feature specifications.

Boef assumes that the operator is completely unspecified for morphosyntactic features – it is just an operator. I slightly adapt this and propose that the operator comes with a specified *deixis* feature.[29] The feature specifications of *deixis* on the operator of the different demonstrative pronouns are given in table 29.

Table 29: *Deixis* feature on demonstrative pronouns

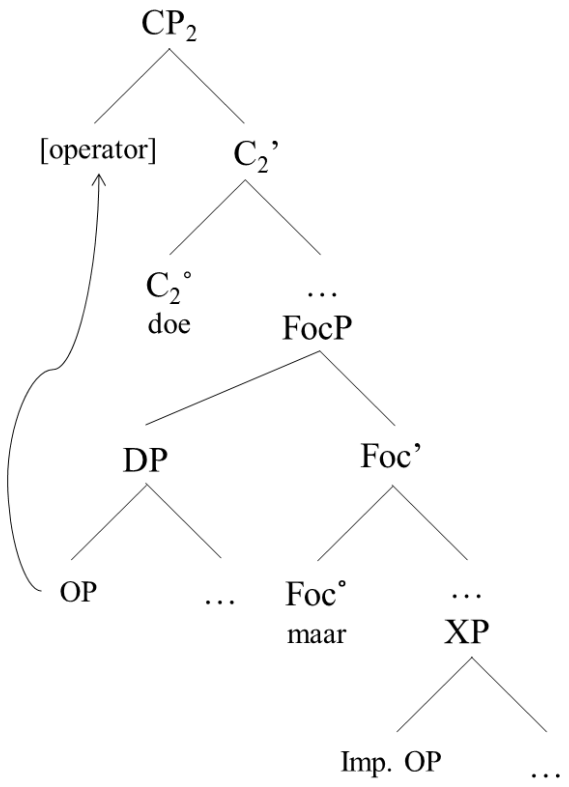
Relation to deictic center	**Pronoun**	**Feature**
Proximal	Dit, deze, hier	*i*[deixis:]
Distal	Dat, die, daar	*i*[deixis: distal]

Given the theory of TII outlined in the previous chapter, the structure of DP as in (34), and the split CP structure discussed in section 3.2.1, we have the following situation in restricted TII dialects. The imperative CP needs a *distal* feature to get imperative force (*person* is provided by the imperative verb). In a sentence with a distal demonstrative pronoun, there are two elements that can provide the clause with this feature: the imperative operator that is assumed to be present in all imperative clauses, or the operator embedded within the distal demonstrative DP. SpecCP_2 has an operator feature that attracts an operator that can provide the CP with *distal*. Under the economical principle Attract Closest (Chomsky 1995), the operator feature attracts the operator that is the closest to it in terms of c-command.

Recall that restricted TII involves the obligatory presence of a sentential focus marker. In order to account for this, I would like to formalize a suggestion made by Barbiers (2013), and propose that the focus marker attracts the object DP to a focus projection (let us call it FocP) that is higher in the clause than the imperative operator. Movement of the object DP to SpecFocP has the result that the operator embedded in the DP is closer to the operator feature in SpecCP_2, which leads to attraction of the operator feature from the DP instead of attraction of the imperative operator, which is lower in the clause. The resulting structure is depicted in (35) (irrelevant projections are left out).

[29] Note that this is not a problem for Boef's analysis of doubling in wh-questions and relative clauses. The elements involved in those structures are *wie* "who", *wat* "what", *die* and *dat* "that", and although (in Boef's specification) they deviate from each other on the features *referentiality*, *gender*, and *animacy*, arguably they all have the same value for the feature *deixis* (namely *distal*; see for instance Rooryck 2003 for a morphological argument that *wat* is *distal*). So, if the operator comes with a *distal* feature in these cases, none of her predictions change (most notably: lexical insertion of the most unspecified pronoun *wat* when the operator is extracted).

(35)



The structure in (35) depicts movement of the operator from inside the demonstrative DP to SpecCP$_2$. In her account of doubling in long-distance *wh*-questions, Boef (2013) proposes that when there is operator movement out of a DP, two things can happen: either the operator moves on its own (subextraction), or it pied pipes the whole DP. I propose that the same can happen in topicalization in imperatives: if the operator moves on its own, it will check the operator feature in C_2° and value the CP with *distal*, but the DP will be realized in SpecFocP position because of recoverability, leading to imperatives where the demonstrative pronoun is not topicalized in its spelled out structure.[30] However, if the operator pied pipes the DP when it moves (and checks and values), the whole DP can (and will be) spelled out in SpecCP$_2$, leading to imperatives where the demonstrative pronoun is topicalized. In other words, I propose that the variation regarding topicalization of demonstrative pronouns arises from variation in pied piping of the DP when there is operator movement from the DP. When there is no focus marker present in the sentence, the object DP will not be attracted to SpecFocP, and will therefore be lower in the clause than the imperative operator. As a result, the imperative operator is closer to the operator feature in SpecCP$_2$ than the demonstrative DP operator, and therefore the imperative operator will be attracted to SpecCP$_2$. This excludes topicalization of the demonstrative DP in imperatives without a focus marker.

Because in imperatives without pied piping, only the lower full copy of the demonstrative pronoun is phonologically realized, but not the extracted operator, there is no

[30] I have no explanation for why the operator is not realized in this structure (like in *wh*-questions with doubling), but only the lowest copy. Perhaps this is due to an interpretative problem that arises if the operator were realized (as *wat* "what", an interrogative pronoun).

direct evidence for the claim that I made. However, there are instances where variation that arises due to variation in pied piping bigger constituents can be seen. An example is preposition stranding. In Standard Dutch, there is a preference for pied piping the preposition when topicalizing an element from a preposition, as illustrated in (36) (example from DynaSAND).

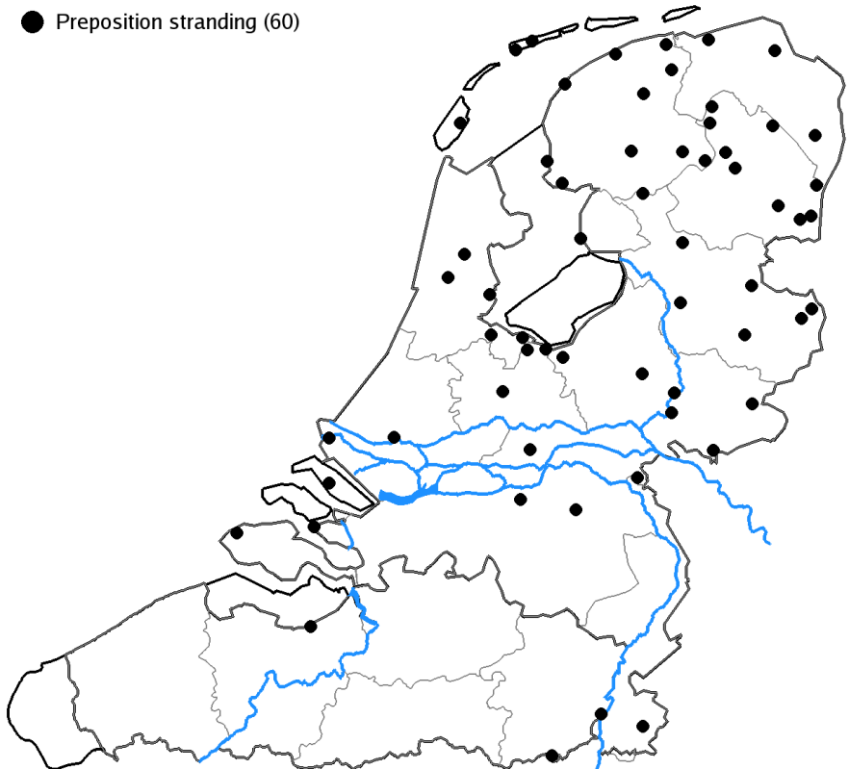
(36) a. Met die rare jongen ben ik naar de markt geweest.
with that strange boy am I to the market been
b. ?Die rare jongen ben ik mee naar de markt geweest.
that strange boy am I with to the market been.
"I went to the market with that strange boy."

Dialects of Dutch show variation in this respect: in some dialects, preposition stranding is perceived as grammatical. If pied piping is not construction specific, but determined by more general factors, then we might conclude that if pied piping is obligatory in a certain instance, it is also obligatory in a different instance.[31] If we apply this to the issue here, this predicts that if a dialect allows preposition stranding (because of not pied piping the preposition), there will also be no pied piping when an operator is extracted from a demonstrative pronoun DP to check and value the imperative CP, and hence no topicalization of the demonstrative pronoun; on the other hand, if preposition stranding is dispreferred, i.e. if pied piping is obligatory, there will also be pied piping in imperatives, leading to demonstrative pronoun topicalization in imperatives. The data show that the majority of dialects where topicalization of demonstrative pronouns is allowed are located in the North-Brabantic area (the other dialect where this is allowed is Winterswijk). DynaSAND data on preposition stranding show that the North-Brabant area is part of the area where preposition stranding is *not* accepted, indicating that pied piping is obligatory. Map 14 illustrates this.[32]

[31] Note that this reasoning only holds under the assumption that pied-piping applies across domains. This is not quite a standard assumption, but see e.g. Heck (2004) for an analysis in this direction.

[32] The data in Boef (2013: 24) indicate that in long distance wh-movement, there are no clear geographical preferences for pied piping the whole DP or not; rather, it seems that in almost all locations, both stranding the DP as well as pied piping the DP are allowed. Possibly, this is due to the methodology used to collect data on long distance wh-movement, as the participants were not all dialects speakers, and the results are aggregated per location, thereby losing individual preferences.

Map 14: Preposition stranding (data: DynaSAND)



Hence, it appears to be the case that pied piping is obligatory in Brabant. If we generalize this to TII, we can explain why we find topicalization of demonstrative pronouns in this region: when the operator moves out of the DP to $SpecCP_2$, it obligatorily pied pipes the rest of the DP, leading to topicalization of demonstrative pronouns.

4.3.4. ± topicalization of full NPs

In the present sample, there is one dialect that allows full NPs to topicalize, namely the dialect of Winterswijk. In the previous sections, I have argued that if an element topicalizes in an imperative, it moves to $SpecCP_2$, the operator position. This implies that all topicalized elements are operators. However, according to Van Craenenbroek's (2004) division between operators and non-operators, complex phrases, such as full NPs, are not operators, and should not be able to move to $SpecCP_2$. In other words, the theory as it is excludes topicalization of full NPs.

In order to account for the existence of full NP topicalization in Winterswijk, there are two possible paths to a solution to this paradox: either the theory is not fully correct, or the data is influenced by external properties. I speculate that the second option is the case here. Specifically, I think topicalization of full NPs in Winterswijk reflects a stage of linguistic change, in which structures that are ungrammatical are realized nevertheless (cf. Postma 2010). Some indications for this are the following. Winterswijk is geographically surrounded by Germany. As we have seen earlier, German does not impose restrictions on TII. TII of full NPs in German might therefore influence TII in Winterwijk. Second, from the data we can observe that TII of full NPs is extremely rare in dialects with restricted TII: only 1 out of the 8 dialects that have restricted TII allows topicalization of full NPs. All other observed patterns

are attested in at least two dialects. This marginality weakens the grammatical status of topicalization of full NPs. If it is correct that topicalization of full NPs in Winterswijk is the realization of ungrammatical structures, then we must conclude that the descriptive parameter ± topicalization of full NPs is not more than that; there is no syntactic factor determining topicalization of full NPs in dialects with restricted topicalization.

Do note that this account of topicalization of full NPs is speculative and the status of the pattern should be tested in future research. However, also note that if topicalization of full NPs were to be a truly grammatical option in Winterswijk, this would most likely arise from a quirk of the dialect Winterswijk and not influence the theory of restricted TII as it stands.

4.3.5. ± topicalization of proximal elements

The final parameter that remains unexplained is ± topicalization of proximal elements. This parameter accounts for the difference between the dialect of Veghel, that allows distal as well as proximal demonstratives to be topicalized, and the dialects of Bergeijk and Someren, that only topicalize distal demonstratives. It furthermore accounts for the difference between Tegelen and Heerlen (topicalization of proximal and distal speech time adverbs) and Odoorn and Didam (topicalization of only the distal speech time adverb). I will argue that the factor responsible for this variation is variation in the default value of the feature *deixis*.

In chapter 3, I proposed that the imperative CP needs *person* and *distal* features to get imperative force. In the attribute-value feature template pursued here, these features were represented as [person:] and [deixis: distal]. If the imperative CP already receives a [person:] feature because of the imperative verb, the feature [deixis: distal] can be provided by having an operator (that possibly pied pipes the whole pronoun) with [deixis: distal] in the Spec of CP, leading to topicalization of distal elements. However, I also mentioned that there is no *a priori* reason to assume that *distal* is the marked value of *deixis*. Arguments have been made for both *proximal* and *distal* being the default (cf. *supra*). The debate about the default value of *deixis* might be taken as an indication that, cross-linguistically, there is no default; rather, the default of *deixis* is language specific. Now, if we assume that in some dialects, instead of *proximal*, *distal* is the default value of *deixis* (i.e. *proximal* is marked, hence specified with a value), we can account for topicalization of proximal elements, without losing the intuition that the imperative CP needs marking for *person* and *distal*: assuming that at LF, the implication of *distal* is enough to mark the clause as *distal*, both the feature specifications for *proximal* (which implies *distal*) and *distal* itself should be able to give the CP its *distal* feature in dialects where *distal* is the default of *deixis*.[33] In dialects where only distal elements can topicalize, *distal* is the marked value, hence specified.

Let us turn to some examples of how *distal* as default of *deixis* works in the syntax. The feature specification of pronouns is given in table 30.

[33] Note that this reasoning implies that the effects of underspecification on LF are somewhat different than the effects on PF. Under my account, the more specified feature can fulfill multiple functions at LF because it implies less specified values – meaning that the more specified feature is multifunctional at LF; on the other hand, it has been argued that Vocabulary Items that are used for different purposes have a underlyingly underspecified feature representation, allowing them to be inserted in different contexts (Rooryck 2003; Boef 2013) – meaning that the less specified (or: underspecified) feature is multifunctional at PF (or more precisely, at Vocabulary Insertion). In principle, this is not incompatible with each other; at most, it means that (the feature set of) a VI with a very underspecified feature representation is less likely to be multifunctional at LF. I still wanted to point it out to avoid confusion.

Table 30: Feature system of personal pronouns (default *deixis*: *distal*)

Pronoun	**Features**
1P	[person:] [deixis: proximal]
2P	[person:] [deixis:]
3P	[person: non-participant] [deixis:]

For the imperative CP to be marked as second person, now means that it needs an *i*[person:] and an *i*[distal:] feature. Let us first look at the morphosyntactic properties of the dialect of Veghel to see what features are present on the imperative verb. The properties are summarized in table 31.

Table 31: Morphosyntactic properties of Veghel

	Ablaut 3P	**Ablaut 2P**	**Ablaut imp. verb**	***i*[deixis: __] in C°**
Veghel	+	+	+	-

Veghel has ablaut with 2P and 3P, and ablaut on the imperative verb. According to the scheme in table 32, this indicates that the imperative is marked with *u*[person:] and *u*[deixis:]. However, because Veghel Dutch is a Zwart dialect, it does not have *i*[deixis: __] in C°. Therefore, the CP cannot receive its *i*[deixis:] feature through the imperative verb. Instead, an element with *i*[deixis:] needs to move to SpecCP. Earlier, we saw the feature specifications of demonstrative pronouns and adverbs. In a system with *distal* as the default for *deixis*, these feature specifications should be rephrased as in table 33.

Table 32: Options of features on the imperative verb (default *deixis*: *distal*)

Options	**Features on imperative verb**
Option I: Ablaut on 2P + 3P; ablaut on imperative verb	*u*[person:] *u*[deixis:]
Option II: Ablaut on 2P + 3P; no ablaut on imperative verb	*u*[person:] *u*[deixis: proximal]
Option III: Ablaut on 3P; no ablaut on imperative verb	*u*[person:]

Table 33: Feature specifications demonstratives and adverbs (default *deixis*: *distal*)

Relation to deictic center	**Pronoun/adverb**	**Feature**
Proximal	Dit, deze, hier, nu/nou	*i*[deixis: proximal]
Distal	Dat, die, daar, dan	*i*[deixis:]

Because of the underspecification of distal pronouns and adverbs, the attribute-value feature combination of distal demonstratives (i.e. [deixis:]) is implied by the more specified combination of proximal demonstratives (i.e. [deixis: proximal]). Under the assumption that in the LF component, the implication of *distal* is enough to actually mark the clause as *distal*, we derive that distal *and* proximal elements can topicalize in imperatives in Veghel.

Let us now turn to Tegelen and Heerlen. The morphosyntactic properties of those dialects are given in table 34.

Table 34: Morphosyntactic properties of Tegelen and Heerlen

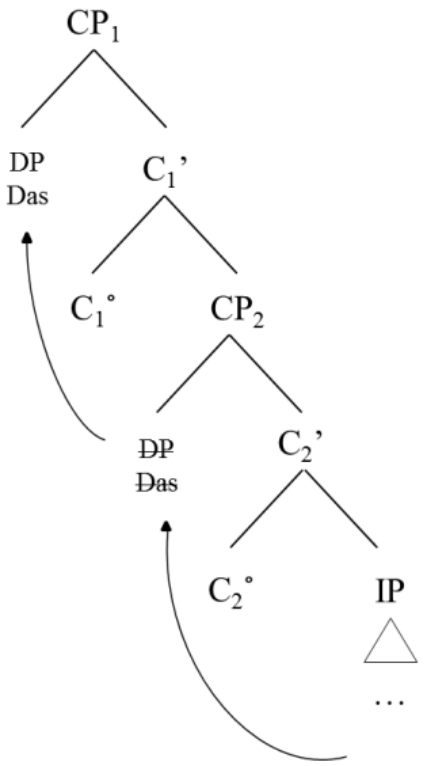
	Ablaut 3P	**Ablaut 2P**	**Ablaut imp. verb**	***i*[deixis: __] in C°**
Tegelen	+	+	-	+
Heerlen	+	+	-	+

Given these properties, the scheme in table 32 predicts that the imperative verb has *u*[person:] and *u*[deixis: proximal]. Given that Tegelen and Heerlen have an *i*[deixis: __] and an *i*[person: __] feature in C°, the imperative verb should be able to mark the sentence as *person* and *distal* right away (where the *proximal* specification implies *distal*) – predicting unrestricted TII. This is not what is observed, however; in Tegelen and Heerlen, only the proximal and distal speech time adverbs can topicalize. Possibly, the feature specifications in table 32 are somewhat too rich. It might be the case that instead of having a *u*[deixis: proximal], the non-ablauted imperative verb is completely unspecified for *deixis*, and only has a *person* feature. This would also fare well with the observation that the non-ablauted Root is also used with all plural pronouns. This means that instead of a *u*[person:] and *u*[deixis: proximal] specification, the imperative verb would only be specified for *u*[person:]. If the verb then moves to C°, it can value C°'s *i*[person: __] feature, but not its *i*[deixis: __] feature. Instead, an element with *i*[deixis:] or *i*[deixis: proximal] should be present in $SpecCP_2$. In combination with the – value for ± topicalization of non-temporal elements, we derive that topicalization of both the proximal speech time adverb *nu/nou* and the distal adverb *dan* is possible in Tegelen and Heerlen.

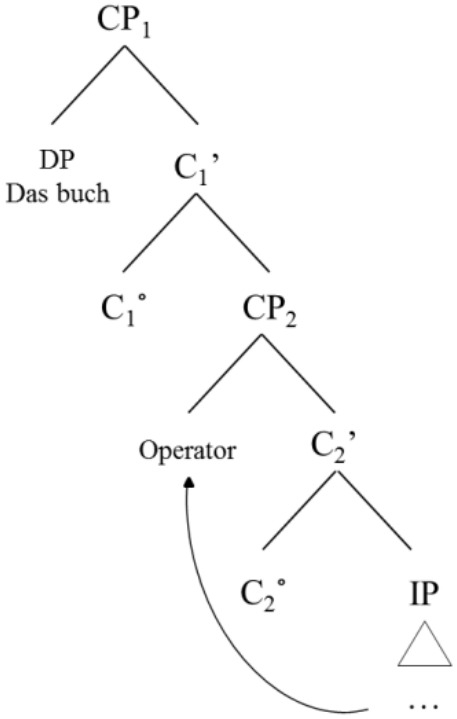
4.3.6. Left dislocation and operators

Let me quickly summarize some of the claims from the preceding sections. All imperatives have a Split CP structure in which $SpecCP_2$ has an operator feature that needs to be checked by attracting an operator. Imperatives get imperative force because of a *person* and *distal* marking. In unrestricted TII language variants (German), the imperative verb marks the CP with *person* and *distal*. In imperatives with a topicalized minimal phrase (operator phrase), the operator moves to $SpecCP_2$ to check the operator feature and likely moves subsequently to $SpecCP_1$ (Van Craenenbroeck 2004). In imperatives with a topicalized complex phrase (non-operator phrase), an empty operator moves to $SpecCP_2$, and the complex phrase is merged in $SpecCP_1$. In language variants with restricted topicalization, the operator needs to provide the clause with a *distal* feature. This places a restriction on the operators that are considered for movement to $SpecCP_2$: only operators with a *distal* feature can move (or the derivation will crash). This leads to imperatives with topicalized phrases that contain a *distal* operator. These options are schematically depicted in (37-39).

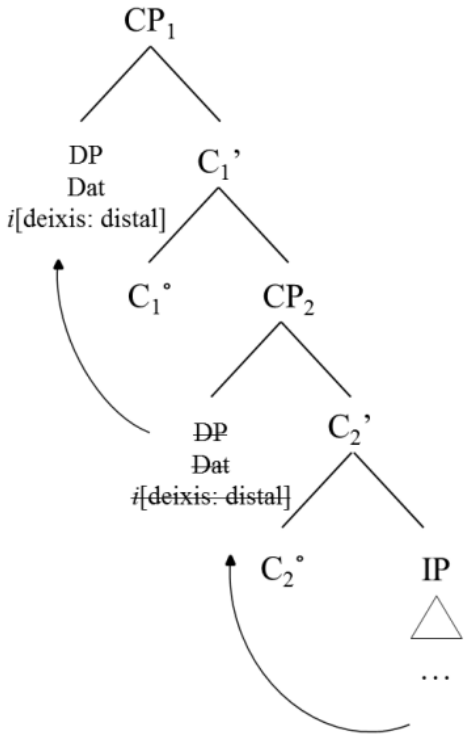
(37) Unrestricted TII of operator



(38) Unrestricted TII of complex phrase



(39) Restricted TII of operator



However, as indicated earlier, these possibilities seem not to be exhaustive: there is, in principle, no restriction moving an operator marked for *distal* to $SpecCP_2$ (the operator depicted in (39)) *and* base-generating a complex phrase in $SpecCP_1$, in languages with restricted TII. This would lead to the prediction that topicalization of complex phrases is possible also in language varieties with restricted TII (Eastern Dutch dialects) and varieties with no TII (Standard Dutch). However, quite the contrary is observed: topicalization of non-operator phrases is out in both Eastern Dutch dialects as well as Standard Dutch. What is possible in these language varieties is left dislocation of a non-operator phrase in imperatives, as illustrated in (40) (example from Barbiers 2007). Also note that left dislocation of an operator is impossible (41).

(40) Dat boek, geef terug!
that book give back
"Give that book back!"
(41) *Dat, geef terug!
that give back!
Intended: "Give it back!"

Van Craenenbroeck (2004: 37) analyzes left dislocation in declaratives as base-generation of the left-dislocated element in $SpecCP_1$. Applied to imperatives, this means that the left-dislocated element in (40) is base-generated in $SpecCP_1$ (and that *dat* in (41) cannot be, in line with its operator status). This leads to the following question: why does base-generating an element in $SpecCP_1$ in language varieties with unrestricted TII (German) lead to topicalization (i.e. no intonational break between the element in $SpecCP_1$ and the rest of the clause), whereas base-generating an element in $SpecCP_1$ in languages varieties with restricted TII (Eastern Dutch) or no TII (Standard Dutch) lead to left dislocation (i.e. an intonational break is present)? The answer I propose is related to properties of the operator in those languages variants. Specifically, I propose that if the operator in $SpeCP_2$ has morphosyntactic features, its presence needs to be signaled by an intonational break between the element in $SpecCP_1$ and the rest of the clause. This has the following implications: in German imperatives, the operator creating an operator-variable dependency between the element in $SpecCP_1$ and the rest of the clause does not need to have morphosyntactic features, because the features *person* and *distal* are provided by the verb. Hence, it is not necessary to have a break in intonation between the element in $SpecCP_1$ and the imperative. The result is that all elements can topicalize in imperatives, either by moving to $SpecCP_2$ (operators) or $SpecCP_1$ (all other elements). In Standard Dutch and Eastern Dutch dialects, the operator moving to $SpecCP_2$ in imperatives needs to have morphosyntactic features: *person* and/or *distal*. If an element is base-generated in $SpecCP_1$, a break in intonation is required to signal the presence of the operator and its features. Hence, elements in $SpecCP_1$ are perceived as being left dislocated.

Some evidence that this is on the right track comes from other left dislocation structures, compared to maximally similar topicalization structures. Consider examples (42) and (43).

(42) Mijn scriptie, die heb ik in een week geschreven.
my thesis that have I in a week written
"My thesis, I have written it in a week"
(43) Mijn scriptie heb ik in een week geschreven.
my thesis have I in a week written
"I have written MY THESIS in a week"

Following Van Craenenbroecks analysis of CP and operators, *mijn scriptie* is a complex phrase and therefore not an operator, and should be base-generated in $SpecCP_1$ and bound to the clause by the operator-variable dependency created by the operator that moves to $SpecCP_2$. In the first sentence, this operator is the resumptive pronoun *die*, which has morphosyntactic features necessary for lexical insertion. In this sentence, an intonational break between the left dislocated element and the resumptive pronoun is necessary. In the second sentence, the operator is arguably empty, and only there to create an operator-variable dependency. In this sentence, an intonational break between the element in $SpecCP_1$ and the operator is necessarily absent. This pattern can be derived from the same explanation that is responsible for the contrast between (dialectal and Standard) Dutch and German imperatives, i.e. if the operator has morphosyntactically relevant features, it enforces an intonational break.

4.4. Summary

This chapter discussed the observed variation in the elements that can topicalize in restricted TII. It was shown that the descriptive parameters in (44) are responsible for the observed variation.

(44)
(i) ± topicalization of non-temporal elements
(ii) ± topicalization of proximal elements
(iii) ± topicalization of full NPs

The respective values of those parameters and the patterns that are derived from them are given in table 35.

Table 35: Parameter values and observed patterns

± Topicalization of non-temporal elements	**± Topicalization of proximal elements**	**± Topicalization of full NPs**	**Dialect**
-	-	-	Didam, Odoorn
+	-	-	Bergeijk, Someren
-	+	-	Heerlen, Tegelen
+	+	-	Veghel
+	-	+	Winterswijk

In addition to those parameters, there are two other properties of restricted TII: topicalization of speech time adverbs is default, and a focus marker is obligatorily present when there is TII.

Taking proposals that the Dutch CP should be split up into two layers as the theoretical background, I proposed the following explanations for the observed properties. First, I assumed (following Cinque 1999) that speech time adverbs can be base-generated in $SpecCP_2$, making topicalization of speech time adverbs the least marked variant of TII. TII can be extended to non-temporal elements if the demonstrative DP moves to a focus position that is higher in the clause than the imperative operator, and if the operator that moves out of the DP pied pipes the whole pronoun. I proposed that differences in the default value of the feature *deixis* can account for topicalization of proximal elements: if the default is *proximal*, only distal elements can topicalize; if the default is *distal*, also proximal elements can topicalize, because in that case, *distal* is implied by *proximal*. Based on the theory, topicalization of full NPs in Winterswijk should be ungrammatical. I argued that this is indeed the case, but that it is realized nevertheless as a result of linguistic change. This implies that the descriptive parameter ± topicalization of full NPs does not have any syntactic status. Finally, I proposed that the difference between base-generating elements in restricted TII dialects (leading to left dislocation) and unrestricted TII dialects (leading to topicalization) can be reduced to features on the operator in $SpecCP_2$: if the operator contributes morphosyntactic features to the interpretation of the clause, it has to be identified by means of an intonational break.

5. Conclusion

5.1. Summary

This thesis investigated topicalization in imperatives in dialects of Dutch. The motivation for this topic is an analysis of TII by Barbiers (2007, 2013, 2016), that faces certain issues: the account both empirically over- and undergenerates in terms of the possibility of TII, and it cannot account for variation in types of elements that can topicalize within dialects that have TII. On the other hand, Barbiers' theory has the benefit of encoding the second person character of imperatives directly into the grammar, and it directly relates syntactic properties to morphosyntactic variation. Hence, the goal of the thesis was to formulate a theory of TII that improves Barbiers' theory in terms of empirical adequacy, but that keeps the intuitive benefits of his theory, hereby answering the following research question:

What are the factors responsible for variation in topicalization in imperatives, as observed in the Dutch language area?

Previous data on TII comes from the DynaSAND, leading to two conclusions: TII is possible in the Eastern Dutch language area, and in this region, TII is subject to certain restrictions. In order to make empirically correct claims about TII, new data on TII and morphosyntactic properties was collected in 10 dialects in the eastern part of the Netherlands, via interviews with dialect speakers, reported on in chapter 2. The results from these interviews show that all dialects under investigation have ablaut in their present tense verbal paradigms for strong verbs. A corpus search (GTRP and DynaSAND) confirmed the existence of a correlation between TII and ablaut in present tense paradigms. The interviews furthermore show that there is considerable variation in the types of elements that can topicalize across different dialects. This is summarized in table 36.

Table 36: Patterns of restricted TII

Pattern	**Topicalized elements**	**Dialect**
(i)	No topicalization	Ootmarsum, Scheemda
(ii)	Distal temporal pronoun	Didam, Odoorn
(iii)	Distal and proximal temporal pronoun	Heerlen, Tegelen
(iv)	All distal pronouns	Bergeijk, Someren
(v)	All distal and proximal pronouns	Veghel
(vi)	All distal pronouns and full NPs	Winterswijk

In chapter 3, the correlation between ablaut and TII was taken as one of the crucial components for the analysis of the option of TII. There is variation in where ablaut is found in a paradigm, and if the imperative has ablaut. I proposed that ablauted verb forms are specified in the Formative List as such, and that the variation leads to variation in the feature specification on imperative verbs. The different options and the effect on the imperative verbs are summarized in table 37.

Table 37: Options of features on the imperative verb

Options	**Features on imperative verb**
Option I: Ablaut on 2P + 3P; ablaut on imperative verb	*u*[person:] *u*[deixis: distal]
Option II: Ablaut on 2P + 3P; no ablaut on imperative verb	*u*[person:] *u*[deixis:]
Option III: Ablaut on 3P; no ablaut on imperative verb	*u*[person:]

The second factor that I proposed to be crucial for TII is whether a dialect is a Den Besten variant (i.e. it has unvalued *person* and *deixis* features in C˚) or a Zwart dialect (i.e. it only has unvalued *person* in C˚) (Postma 2011, Van Alem 2016). Following Barbiers, I assumed that imperatives need *person* and *distal* features in C˚. The imperative verb can only provide the imperative CP with *person* and/or *distal* if the features *person* and *deixis* are also present on C˚ (because of interpretability). In the data (Standard Dutch and German included), 5 different combinations of ablaut, imperatives verbs and dialect types are observed. Given our assumptions, these combinations lead to different predicted patterns of TII. This is summarized in table 38. The predictions are borne out in 10 of the 12 dialects.

Table 38: The option of TII (summary)

	Features on imp. verb	**Dialect type**	**Predicted TII**	**Prediction borne out?**
Standard Dutch	No	Zwart	No TII	✔
Scheemda	*u*[person:] *u*[deixis:]	Den Besten	Restricted TII	✘
Odoorn	*u*[person:]	Zwart	Restricted TII	✔
Ootmarsum	*u*[person:]	Zwart	Restricted TII	✘
Winterswijk	*u*[person:]	Zwart	Restricted TII	✔
Didam	*u*[person:]	Zwart	Restricted TII	✔
Veghel	*u*[person:] *u*[deixis: distal]	Zwart	Restricted TII	✔
Bergeijk	*u*[person:] *u*[deixis: distal]	Zwart	Restricted TII	✔
Someren	*u*[person:] *u*[deixis: distal]	Zwart	Restricted TII	✔
Tegelen	*u*[person:] *u*[deixis:]	Den Besten	Restricted TII	✔
Heerlen	*u*[person:] *u*[deixis:]	Den Besten	Restricted TII	✔
Standard German	*u*[person:] *u*[deixis: distal]	Den Besten	Unrestricted TII	✔

Chapter 4 discussed the different patterns of restricted TII. I showed that the patterns can be reduced to the descriptive parameters in (45), plus the observation that topicalization of *dan* "then" is default, and that in TII, a focus marker is obligatory present.

(45)
(i) ± topicalization of non-temporal elements
(ii) ± topicalization of proximal elements
(iii) ± topicalization of full NPs

For restricted TII, I assumed that the topicalized element is moved to or base-generated in the operator position $SpecCP_2$. The default status topicalizing the speech time adverb *dan* was taken to result from the possibility of base-generating *dan* in $SpecCP_2$ position (Cinque 1999). Non-temporal demonstrative pronouns can be topicalized when they are attracted by a focus marker to a structural position higher than the imperative operator, and when the operator inside the DP that is attracted by the operator feature in $SpecCP_2$ pied pipes the whole DP. Topicalization of proximal elements was accounted for by assuming that there are language specific defaults of the feature *deixis*: in varieties where proximal is the default, only distal elements can topicalize (because only they can mark the CP as *distal*); in dialects with *distal* as default, both distal and proximal elements are able to mark the CP as *distal*, and therefore both type of elements can topicalize. Topicalization of full NPs in Winterswijk was proposed to be an instance of a structure that is ungrammatical but realized nevertheless, under the influence of language contact. Finally, the difference between left-dislocation and topicalization in imperatives was discussed. I proposed that a left-dislocation structure comes about when an element is base-generated in $SpecCP_1$ and when the operator in $SpecCP_2$ has syntactically relevant features.

5.2. Suggestions for further research

The analyses put forward of both the option of TII as well as the patterns of TII involve many claims and ideas that lead to a potential new research field. Here, I would like to highlight some of those that I believe are particularly promising. The first is the analysis of ablaut as a phenomenon that is independent of morphological operations (such as Agree). Although I have given some evidence for this assumption, as well as a syntactic consequence, there are probably additional syntactic environments where variation can be derived from this. Secondly, I argued for language specificity in default of the feature *deixis*, and implemented this in my account of the patterns of TII (specifically, to account for the difference between proximal and distal topicalizing variants, and only distal topicalizing variants). On the one hand, this leads to questions relating to the acquisition of the default and the factor that determines the default – I believe Schoorlemmer (2009) has an elegant answer, with the proposal that this is related to morphological realization (*morpho-driven feature specification*). On the other hand, the question arises where and how the default is visible in syntax, that is, what kind of syntactic effects the default has. Furthermore, it is an open question whether a language specific default is applicable to all morphosyntactic features, or just to a subset, of which *deixis* is one. The final claim that I think would be feasible for further research is the overlap between personal pronouns and demonstrative pronouns.

Although personal pronouns and demonstratives seem to form a natural class (Barbiers 2013), there are not fully identical: for instance, proximal demonstratives get 3P agreement morphology, whereas proximal personal pronouns (1P pronouns) get 1P morphology. Also, if one were to map those features to a feature template in the sense of Harley and Ritter (2002) and related proposals, it is yet unclear if personal and demonstrative pronouns are part of the same geometry, and if so, where the differences between them come from.

On the empirical side, the results regarding the patterns of restricted TII are based on a fairly small set of data. Although I believe the data are largely representative, it would be good to confirm the existence of the patterns induced by the parameters ± topicalization of non-temporal elements and ± topicalization of proximal elements, and to investigate the status of the pattern attested in Winterswijk (i.e. topicalization of full NPs), in a study using a larger set of participants from different locations, with a larger set of test items. If one were to undertake this, it might be worthwhile to invest in methodology: the current methodology used for collecting TII data was not only time consuming, but also sensitive to noise. Methodological improvement could not only benefit research into TII, but dialect research in general.

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Appendix A: participants

Abbrevations

LP: listening participant

RP: recording participant

Bergeijk

Sex	Age	Education	History of residency	Birthplace parents	Role
Male	63	HBS (equals Dutch havo/vwo)	Hoogeloon 23 years; Bergeijk 40 years	Winterle; Hoogeloon	RP
Female	55	Dutch MBO	Bergeijk	Bergeijk; Luijksgestel	LP
Male	56	Dutch MBO	Bergeijk	Bergeijk	LP

Didam

Sex	Age	Education	History of residency	Birthplace parents	Role
Male	65	MULO (equals Dutch vmbo)	Didam	Zevenaar; Didam	RP
Female	62	MULO (equals Dutch vmbo)	Didam	Didam	LP
Female	59	Huishoud-school (equals Dutch vmbo)	Nieuw-Dijk-Didam	Nieuw-Dijk-Didam	LP
Male	67	Dutch MBO	Giesbeek 23 years; Didam 45 years	Giesbeek	LP (excluded)

Heerlen

Sex	Age	Education	History of residency	Birthplace parents	Role
Female	24	University	Heerlen 18 years; Utrecht 7 years	Heerlen	RP
Male	71	Dutch HBO	Heerlen	Heerlen	LP
Female	69	Dutch HBO	Heerlen 64 years; Best 5 years	Heerlen	LP
Male	81	MO (equals Dutch HBO)	Heerlen	Heerlen	LP

Odoorn

Sex	Age	Education	History of residency	Birthplace parents	Role
Male	62	Dutch HBO	Odoorn 23 years; Emmen 3 years;	Odoorn; Valthermond	RP

			Gasselte 38 years		
Female	66	Meao (equals Dutch MBO)	Odoorn 22 years; Nieuw Buinen 40 years; Musselkanaal 3 years	Odoorn; Valthermond	LP
Female	69	Rijkskweek-school (equals Dutch HBO)	Odoorn 21 years; Musselkanaal 47 years	Odoorn	LP
Male	58	Dutch MBO	Odoornerveen 25 years; Westerbork 4 years; Odoorn 27 years	Drouwen; Odoornerveen	LP

Ootmarsum

Sex	**Age**	**Education**	**History of residency**	**Birthplace parents**	**Role**
Male	73	Dutch HBO	Albergen 30 years; Ootmarsum 44 years	Lonneker; Albergen	RP
Male	71	Dutch MBO	Ootmarsum	Ootmarsum; Den Haag	LP
Male	75	Dutch HBO	Lattrop 15 years; Ootmarsum 61 years	Ootmarsum	LP

Scheemda

Sex	**Age**	**Education**	**History of residency**	**Birthplace parents**	**Role**
Female	66	Dutch MBO	Hellum 34 years; Paterswolde 2 years; Deventer 3 years; Raalte 2 years; Enumatil 5 years; Scheemda 22 years	Schildwolde; Hellum	RP
Male	74	RMLS (equals Dutch (v)mbo)	Scheemda	Baflo; Scheemda	LP
Female	65	Huishoud-school (equals Dutch vmbo)	Scheemda	Scheemda	LP
Male	71	University	Scheemda 56 years; Groningen 15 years	Scheemda	LP

Someren

Sex	**Age**	**Education**	**History of residency**	**Birthplace parents**	**Role**
Male	78	Dutch MBO	Someren	Someren	RP
Male	73	Dutch HBO	Someren	Someren	LP

Male	65	Dutch HBO	Someren	Someren; Oudewater	LP
Male	69	MULO (equals Dutch vmbo)	Someren	Utrecht; Someren	LP (excluded)

Tegelen

Sex	**Age**	**Education**	**History of residency**	**Birthplace parents**	**Role**
Male	24	University	Venlo 18 years; Den Haag 0,5 years; Maastricht 3 years; Utrecht 1,5 years	Venlo; Velden	RP
Male	78	Dutch vmbo	Tegelen	Tegelen; Maasbree	LP
Female	62	MULO (equals Dutch vmbo)	Tegelen	Belfeld; Tegelen	LP
Male	70	Dutch vwo	Tegelen	Tegelen	LP

Veghel

Sex	**Age**	**Education**	**History of residency**	**Birthplace parents**	**Role**
Male	61	Dutch HBO+	Veghel	Veghel	RP
Male	73	Dutch HBO	Veghel 54 years; Zevenaar 3 years; Maastricht 6 years; Weert 2 years; Netherlands Antilles 5 years; Boekel 1 year	Ravenstein; Veghel	LP
Male	75	Lts (equals Dutch vmbo)	Veghel	Veghel; Helmond	LP
Male	64	HLO (equals Dutch HBO)	Veghel	Veghel; Den Bosch	LP

Winterswijk

Sex	**Age**	**Education**	**History of residency**	**Birthplace parents**	**Role**
Male	73	Dutch MBO	Winterswijk 70 years; Amstelveen 2 years	Aalten	RP
Female	59	Dutch vwo	Winterswijk	Winterswijk	LP
Male	64	MULO (equals Dutch vmbo)	Winterswijk	Winterswijk	LP
Female	69	Huishoud-school (equals Dutch vmbo)	Winterswijk	Winterswijk	LP

Appendix B: test material

Indirect grammaticality judgement task

Practice sentences:

Je mag niet aan mijn spullen komen. Geef dat boek terug!

De jongens hebben vandaag hard gewerkt. Laat hen maar opscheppen twee keer!

Test sentences (topicalized element in bold face):

Category	**Type of expression**	**Sentence**
Proximal pronoun	Locative	Bij dat raam daar zit je in de tocht. **Hier** ga maar zitten!
	Locative (non-locative interpretation)	Een kat zorgt voor zichzelf. **Hier** reken maar niet op bij een hond!
	Temporal	Als je straks belt, is het restaurant misschien al volgeboekt. **Nu** bel maar (op)!
	Temporal (non-temporal interpretation)	Je zit al veel te lang te kletsen. **Nu** werk maar weer door!
	Entity (neuter)	Ik heb iets lekkers gekocht. **Dit** proef maar eens!
	Entity (common)	Ik heb een film voor je meegenomen. **Deze** kijk maar eens!
Proximal full NP	Locative	De borden staan niet in die kast. **In deze kast** kijk maar eens!
	Temporal	Ik hoor dat je afgelopen week niet veel hebt geoefend. **Deze week** doe beter je best!
	Entity (neuter)	Zoek je nog wat om te lezen in de vakantie? **Dit boek** lees maar eens!
	Entity (common)	De tuin staat er niet zo mooi bij. **Deze plant** geef maar wat water!
Distal pronoun	Locative	Riet is vorig jaar naar Griekenland geweest. **Daar** ga maar eens heen!
	Locative (non-locative interpretation)	Bij een nieuwe auto is het onderhoud goedkoop. **Daar** ga maar niet vanuit bij een oude auto!
	Temporal (future)	De bakker gaat om 10 uur open. **Dan** ga maar brood halen!
	Temporal (past)	Ik heb vorige week aangeboden je te helpen. **Toen** had maar ja gezegd!
	Temporal (non-temporal interpretation)	Als je je verveelt, **dan** ga maar aardappels schillen!
	Entity (neuter)	Dat hemd staat je niet zo goed. **Dat** neem maar

		niet!
	Entity (common)	Er hangt een mooie jas in de kast. **Die** doe maar eens aan!
Distal full NP	Locative	Op deze stoel zit Jan altijd. **Op die stoel** ga maar zitten!
	Temporal	Over twee weken ben ik op vrijdag vrij. **Die vrijdag** geef maar een feestje!
	Entity (neuter)	Moet je niet wat meer op de lijn letten? **Dat koekje** neem maar niet!
	Entity (common)	Het is niet erg als je niet alles mee kunt nemen. **Die doos** laat maar staan!

Translation task
Als je moe bent, ga je maar naar bed.
Ik weet dat je de waarheid vertelt.
Je ging het huis uit toen je trouwde.
Nu je klaar bent, kun je gaan.
Ik wil weten waar je naartoe gaat.

Appendix C: complete results TII per dialect

Abbreviations

+ Grammatical (judged as occurring by >50% of participants)

- Ungrammatical (judged as non-occuring by all participants)

% Disagreement marker (judged as occurring by <50% of participants)

Bergeijk

		Proximal		**Distal**	
		Pronoun	Full NP	Pronoun	Full NP
Locative	Locative interpretation	-	-	+	-
	Non-locative interpretation	%	xx	+	xx
Temporal	Temporal interpretation	-	-	Future +	%
				Past %	
	Non-temporal interpretation	%	xx	+	xx
Entity	Neuter	+	%	%	+
Entity	Common	%	+	+	+

Spontaneous topicalization of *dat* "that"

Didam

		Proximal		**Distal**	
		Pronoun	Full NP	Pronoun	Full NP
Locative	Locative interpretation	-	-		-
	Non-locative interpretation	-	xx	+	xx
Temporal	Temporal interpretation	-	-	Future +	Missed
				Past -	
	Non-temporal interpretation	-	xx	+	xx
Entity	Neuter	-	-	-	-
Entity	Common	-	-	%	+

Heerlen

		Proximal		**Distal**	
		Pronoun	Full NP	Pronoun	Full NP
Locative	Locative interpretation	-	%	-	%

	Non-locative interpretation	-	xx	-		xx
Temporal	Temporal interpretation	+	+	Future	+	+
				Past	-	
	Non-temporal interpretation	%	xx	+		xx
Entity	Neuter	%	-	-		-
Entity	Common	%	-	-		%

Reported topicalization of *dan* “then” and *nu* “now”

Odoorn

		Proximal		**Distal**		
		Pronoun	Full NP	Pronoun		Full NP
Locative	Locative interpretation	-	-	-		%
	Non-locative interpretation	-	xx	%		xx
Temporal	Temporal interpretation	-	%	Future	+	-
				Past	%	
	Non-temporal interpretation	-	xx	+		xx
Entity	Neuter	-	-	-		%
Entity	Common	-	%	-		-

Ootmarsum

		Proximal		**Distal**		
		Pronoun	Full NP	Pronoun		Full NP
Locative	Locative interpretation	-	-	-		-
	Non-locative interpretation	%	xx	-		xx
Temporal	Temporal interpretation	-	-	Future	-	%
				Past	-	
	Non-temporal interpretation	%	xx	-		xx
Entity	Neuter	-	-	-		-
Entity	Common	-	-	-		+

Scheemda

		Proximal		**Distal**	
		Pronoun	Full NP	Pronoun	Full NP
Locative	Locative interpretation	-	-	-	%
	Non-locative interpretation	-	xx	-	xx
Temporal	Temporal interpretation	-	-	Future -	-
				Past -	
	Non-temporal interpretation	-	xx	-	xx
Entity	Neuter	-	-	-	-
Entity	Common	-	-	-	%

Someren

		Proximal		**Distal**	
		Pronoun	Full NP	Pronoun	Full NP
Locative	Locative interpretation	-	-	+	-
	Non-locative interpretation	-	xx	%	xx
Temporal	Temporal interpretation	%	-	Future +	%
				Past -	
	Non-temporal interpretation	-	xx	+	xx
Entity	Neuter	-	-	+	%
Entity	Common	-	-	+	+

Spontaneous topicalization of *dan* “then”

Tegelen

		Proximal		**Distal**	
		Pronoun	Full NP	Pronoun	Full NP
Locative	Locative interpretation	-	-	-	-
	Non-locative interpretation	-	xx	-	Xx
Temporal	Temporal interpretation	+	-	Future %	-
				Past -	
	Non-temporal	%	xx	%	xx

	interpretation				
Entity	Neuter	-	-	-	-
Entity	Common	-	-	-	-

Reported topicalization of *dan* “then” and *nu* “now” from 2/3 participants

Veghel

		Proximal		**Distal**	
		Pronoun	Full NP	Pronoun	Full NP
Locative	Locative interpretation	-	-	+	-
	Non-locative interpretation	+	xx	+	xx
Temporal	Temporal interpretation	+	-	Future + / Past %	%
	Non-temporal interpretation	%	xx	+	xx
Entity	Neuter	+	-	%	-
Entity	Common	-	%	%	+

Winterswijk

		Proximal		**Distal**	
		Pronoun	Full NP	Pronoun	Full NP
Locative	Locative interpretation	-	-	+	%
	Non-locative interpretation	%	xx	+	xx
Temporal	Temporal interpretation	%	-	Future + / Past +	+
	Non-temporal interpretation	+	xx	+	xx
Entity	Neuter	-	%	+	+
Entity	Common	%	%	+	+