Complementizer Agreement in Modern Varieties of West Germanic: A model of reanalysis and renewal

by

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A dissertation submitted in partial fulfillment of

the requirements for the degree of

Doctor of Philosophy

(German)

at the

UNIVERSITY OF WISCONSIN-MADISON

2013

Date of final oral examination: 1/25/13

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To Mom and Dad.

Acknowledgments

I should begin by thanking Joe Salmons, who over the last number of years has been not only my dissertation advisor, but also an uncanny mentor, colleague and friend. For his support, for my successes and for my development as an academic and a professional, I owe Joe an enormous debt of gratitude.

I would also like to acknowledge Elly van Gelderen, who took an early interest in my project, and who provided not only honest and detailed feedback on multiple manuscripts, but who also gave her stamp of approval for my application of the Linguistic Cycle framework she so thoroughly developed.

In addition to the input and support from Joe and Elly, this dissertation would not have been possible without the contributions of my other committee members. To Rob Howell goes the credit for planting the seed of this dissertation in first mentioning complementizer agreement to me. In addition to his input on this project, I am also grateful to Rob for sharing his wealth of practical tips and methodological approaches to teaching. I would like to thank Mark Louden for a handful of extremely efficient and beneficial meetings that were essential to positioning this work within current linguistic theory. Thanks are also due to Monica Macaulay, whose guidance in the understanding of morphological analysis was indispensable, and whose close reading of the dissertation itself helped craft a much clearer argument. And thank you to Anja Wanner, who helped me see my own project from the outside, and to present my contribution in a much clearer manner.

There are also a number of other people who were not on my dissertation committee that were essential to the project. Dan Nützel was the keystone in my fieldwork in Bavaria, and I am

thankful for not only his help in establishing contacts and finding consultants, but also for the example he set as a field researcher. I would also like to thank Johann Schmuck from the Sprachatlas Nordorstbayern for helping me find consultants in the Regensburg area, including a trip to Hof am Regen to interview his neighbors. Thanks also to Herr and Frau Osinger for their hospitality in Bayreuth, and to all my consultants for their participation, both in Germany and also in Wisconsin. I am additionally grateful for the Vilas Research Travel Grant and the UW-Madison Department of German for funding my fieldwork in large part.

I would also like to acknowledge my some of my colleagues that played a crucial role in the development of this dissertation. A big thanks is due to Alyson Sewell and Ben Frey. Many theoretical and methodological issues were hammered-out during our long road trips to conduct fieldwork in eastern Wisconsin. Thanks also to Mike Putnam, who has been a great mentor and colleague. Thanks are also due to Mike Olson, who took me under his wing when I first came to graduate school; and to Andrew Kraiss, who for a number of years has been a great colleague and loyal friend.

Lastly, I would like to thank my family for their love and support, which have both been without limit. I have been fortunate to have grown up in a family that values education highly, but more importantly a family that supports me in everything I do. For this and for so much more, I am thankful for my grandparents George, Margaret, Glenn and Elaine; Aunt D, Aunt Lisa and Uncle George; and my cousins Jess and Forrest. Thanks to Katie, who gives me support and balance, and who has shared my burdens and successes in writing this dissertation. Thanks to Jonathan, whose unwavering support is only one of many reasons I'm lucky to have him as a

brother. And lastly, thanks to my parents, Paul and Sandy, to whom this is dedicated. I am eternally grateful to you for the sacrifices you have made, and the example you have set.

Abstract

This dissertation provides a comparative analysis of Complementizer Agreement (C-agr) in modern dialects of West Germanic from a diachronic perspective, attributing both the rise and the development of C-agr to the initiation and progression of a Linguistic Cycle specific to C-agr. Approached as a historical process of reanalysis and compensatory renewal involving subject-agreement marking, the development of C-agr phenomena is treated as an ongoing process, where the synchronic licensing of C-agr is not uniform across all varieties, but rather is specific to the phase of the C-agr cycle attested, based on the three-phase cycle adopted from Jespersen (1917) and van Gelderen (2011). The Linguistic Cycle adopted and adapted here formalizes the diachronic study of C-agr within a synchronic framework, and informs the synchronic study of C-agr with the historical development of the phenomenon.

The current study of C-agr analyzes modern attestations of C-agr across the West Germanic varieties that exhibit it. This comparative data is then used to build a diachronic picture of the rise and development of C-agr. Analysis of the data employs diagnostics from multiple sub-fields of linguistics to identify stages of reanalysis, including acoustic analysis of clitics and affixes; comparative distribution of (agreement) morphemes; phonological analysis of prosodic characteristics of reduced pronouns; grammaticality judgments; and syntactic analyses of the agreement structures at multiple stages of reanalysis. This dissertation draws on evidence from original fieldwork on varieties of Bavarian, East Franconian and heritage varieties of German spoken in Wisconsin, as well as previous synchronic and diachronic literature on Cimbrian, West Frisian, West Flemish, and Dutch, with each variety showing an identifiable phase of the C-agr cycle. This dissertation provides an account that synchronic licensing of C-agr

in modern varieties is derived from identifiable diachronic developments, and that the variation exhibited between modern varieties is indicative of the relative progression of each variety through an ongoing Linguistic Cycle specific to C-agr. In doing so, this dissertation contributes to our understanding of both the singular phenomenon of C-agr, as well as to the wider scholarship on syntactic change, with an explicit call for a cross-linguistic approach to language change that also takes into consideration the interaction between different linguistic subfields, especially syntax and phonology.

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Abbreviations

Abbreviation	Meaning
1	Phi features for number: first person
2	Phi features for number: second person
3	Phi features for number: third person
C	complementizer; syntactic head of CP
C-agr	complementizer agreement
CD	clitic doubling
CP	complementizer phrase
D	determiner; syntactic head of DP
DM	distributed morphology
DP	determiner phrase
GB	Government & Binding
GMC	Germanic
GO	Gothic
I	syntactic head of IP
IE	Indo-European
IP	inflectional phrase
LF	logical form
MP	Minimalist Program
OE	Old English
OHG	Old High German
PF	phonological form
PL	Phi features for number: plural
SG	Phi features for number: singular
T	syntactic head of TP
TAM	tense, aspect, mood
TP	tense phrase
V	verb; syntactic head of VP
V2	verb-second
VI	vocabulary item
VP	verb phrase

Chapter 1

1.0. Introduction to C-agr and the Linguistic Cycle

This dissertation provides a comparative, cross-linguistic analysis of Complementizer Agreement (C-agr) in dialects of West Germanic from a diachronic perspective. Focusing on both the rise and subsequent development of C-agr – as well as the synchronic syntax at any given point of historical development – this dissertation focuses on how subject pronouns and verbal inflectional affixes are reanalyzed as inflectional affixes on complementizers. The extension of agreement-marking features to a part of speech that did not previously possess them is an important component to our understanding of how syntactic change occurs. Thankfully, the daughter dialects of West Germanic – including varieties of German, Dutch, West Flemish, and West Frisian – provide an abundance of data from the earliest attestations in 13th century Low Franconian (Dutch) texts (cf. Goemann 1997) up to wide attestations in non-standard modern varieties across the European continent, as well as in diasporic communities in eastern Wisconsin (Bousquette 2012), and Haysville, Indiana (Nützel 1998, 2009). This dissertation approaches the study of C-agr by comparing the modern varieties of West Germanic that exhibit the phenomenon, and using the comparative data to build a diachronic picture of the rise and development of C-agr. Analysis of the data employs diagnostics from multiple sub-fields of linguistics to identify stages of reanalysis, including acoustic, phonetic analysis of clitics and affixes; comparative distribution of (agreement) morphemes; phonological analysis of prosodic characteristics of reduced pronouns; grammaticality judgments; and syntactic analyses of the agreement structures at multiple stages of reanalysis. This dissertation therefore contributes to our understanding of both the singular phenomenon of C-agr, as well as to the wider scholarship on syntactic change, with an explicit call for a cross-linguistic approach to language change that

also takes into consideration the interaction between different linguistic sub-fields, especially syntax and phonology.

Approaching the phenomenon as a process of reanalysis and compensatory renewal involving subject-agreement marking, I employ the Linguistic Cycle framework following van Gelderen (2011). This dissertation describes the development of C-agr phenomena as an ongoing process, where the synchronic licensing of C-agr is not uniform across all varieties, but rather is specific to the phase of the C-agr cycle attested; with the progression through each phase of the cycle, pronominal and inflectional morphemes are reanalyzed, such that each phase demonstrates a slightly different agreement structure for the licensing of C-agr. Described below – and in greater detail in chapter 2 – the three-phase cycle adopted from Jespersen (1917) provides a basic model for the Cycles framework that has undergone considerable development in subsequent literature. Increasing in complexity and informed by cross-linguistic data across a variety of different lexical items, the Linguistic Cycle adopted and adapted here formalizes the diachronic study of C-agr within a synchronic framework, and informs the synchronic study of C-agr with the historical development of the phenomenon.

This dissertation draws on evidence from original fieldwork on varieties of Bavarian, East Franconian and heritage varieties of German spoken in Wisconsin, as well as previous synchronic and diachronic literature on Cimbrian, West Frisian, West Flemish, and Dutch, with each variety showing an identifiable phase of the C-agr cycle. I argue for an approach that treats the synchronic as derived from the diachronic, with subject-agreement marked specific to the identifiable phase of the cycle.

The remainder of this introductory chapter introduces seminal and recent scholarship on C-agr (§1.1) and on the Cycles Framework (§1.2), with special emphasis given to the

intersection of synchronic and diachronic analysis. This description of C-agr phenomena is greatly expanded in chapter 2 (§2.1, §2.2), where its rise is also placed in historical context of the pre-requisite syntactic conditions and developments (§2.3). These historical developments are then summarized (§2.5) and synthesized into a clear picture of how C-agr is analyzed as a three-phase Linguistic Cycle (§2.6).

Chapter 3 applies the theoretical framework outlined in chapter 2 to a data set of multiple modern West Germanic varieties, with each section within chapter 3 dealing specifically with one phase of the C-agr Cycle. §3.1 begins with an analysis of phase I of the C-agr Cycle, as exhibited by Wisconsin Heritage German, based on acoustic and morphological data. In §3.2 data are presented evidencing phase II in continental European varieties, including original fieldwork conducted on Bavarian and East Franconian. Lastly, §3.3 treats instances of phase III, that is, the completion and repetition of the C-agr Cycle, as evidenced by Cimbrian, with a summary of the chapter following in §3.5.

Following the presentation of data supporting the analysis of C-agr as a Linguistic Cycle in chapter 3, chapter 4 explores the possibility that C-agr may independently arise through an analogical extension of the verbal paradigm to complementizers – or other elements[1] – which occupy the topical position in subordinate clauses. This argument is outlined in §4.1, with the mechanisms of analogical change defined in in that section, as well. Support for this analogical development is provided on the basis of double agreement marking (§4.2). §4.3 introduces pro-drop, which is possible in phase II of the C-agr Cycle but is prohibited in C-agr derived through analogical extension. This discrepancy provides evidence that C-agr may result from one of two separate historical developments. These data and arguments are summarized in §4.4 and §4.5.

[1] 'Element' will be used as a generic term for both lexical and functional words and morphemes. This allows for a broader discussion especially of subject-agreement marking (subject pronouns, pronominal subject clitics and inflectional affixes) as well as the stems to which inflection may affix, irrespective of the stage of reanalysis.

The final chapter, chapter 5, firstly summarizes the arguments of this dissertation, making explicit its contribution to the literature on both C-agr and work on The Linguistic Cycle. Secondly, the final chapter contextualizes this dissertation as a work combining diachronic and synchronic approaches to the study of language and language change. Rooted in the comparative method, it is explicitly stated that data from multiple related varieties predictably yields variation in the manifestation of C-agr phenomena, which must be considered inclusively without being accounted for with a single, uniform structure. The chapter – and the dissertation – concludes with possible avenues for future study.

1.1. Background

Both the Cycles framework and the study of C-agr in West Germanic waxed in popularity at the end of the 19th century only to wane thereafter, and scholars have returned to both only within the last 15-20 years. This is the first work, however, which seeks to combine the two by analyzing C-agr within a Cycles framework. Studies employing a Cycles framework have famously dealt with negation, including the seminal piece by Jespersen (1917), as well as recent work by Breitbarth (2009) and Willis (2010, 2011). Building on work from the 18th, 19th and 20th centuries, a comprehensive account of The Linguistic Cycle is given in van Gelderen (2011: 3-33; cf. van Gelderen 2011: 3-5 for summary of previous work on cycles), which includes cross-linguistic examples of the application of the cycles framework to a variety of parts of speech and their historical development. This study builds on this research tradition, extending the framework to a new data set in the study of C-agr.

1.1.1. C-agr

As already noted, previous studies of C-agr phenomena are numerous, but have approached C-agr from very different perspectives than the one offered here. Provided below is an oft-cited example of C-agr from Bavarian, in which the complementizer *wenn* ("if/when") inflects for second person singular (Bayer 1984: 233).

1.1. *Wennst* *kummst*

if-2SG PRO come-2SG

"If you come"

Recent literature on complementizer agreement has concerned itself both with the theoretical, synchronic workings of C-agr, and how to capture it in current theory. For my purposes, agreement will be defined following Ackema et al. (2006: 1) as "the phenomenon in which particular features of one element in a clause ... determine the morphological shape of another element". This definition is clearly rooted in the Principles and Parameters tradition, though a broad interpretation of this relationship between syntactic architecture and lexical items with respect to feature-marking is largely independent of a given theoretical model.[2] The agreement features dealt with in this dissertation will be between the subject and finite verb, and between the subject and inflected complementizer. What I argue here is that the manner by which C-agr arose in a given variety – as well as the progression through a cyclical pattern of grammaticalization – determines the subject-agreement structure at any given point. C-agr developed through the reanalysis of subject pronouns participates in a three-phase cycle, with synchronic licensing of agreement being determined by the attested phase of the cycle (cf. chapters 2 and 3); C-agr developed through the analogical extension of verbal agreement to

[2] It may be more accurate to say that the notion of syntactic features (cf. Chomsky 1965) predates many current theoretical models, and has been largely adopted in many subsequent frameworks.

complementizers does not participate in a Linguistic Cycle, licensing C-agr that is specific to C (cf. chapter 4).

Much literature, particularly those contributions employing Principles and Parameters models to explain the synchronic licensing of C-agr, has wrestled with the issue of agreement, and what relationship must exist between the syntactic node C, and the ability to host agreement features (for summary, cf. Carstens 2003). The analysis of C-agr in this dissertation aims to be largely theory-neutral, though the issue of agreement licensing in C-agr has to this point been undertaken by scholars working primarily in Government and Binding or Minimalist frameworks, largely with the goal of outlining the synchronic agreement structure of C-agr by providing only a single, derivational account. Some have argued that the features themselves originate at a lower projection and then merge with C, while others have argued a more direct ability for C to host these features. Schlonsky (1994) argues that C itself can host an AgrP (agreement phrase), thereby being able to inflect and agree without any movement or copying from elsewhere. Weerman also concludes, "clitics are based on case features that are spelled out, the subject clitics are spelled out on C, which would suggest that the information that underlies them (and thereby the nominative case) is present in C" (Weerman 1989: 37). This is a similar approach to the feature-based account of C-agr in chapters 2 and 3, in that it does not require derivation from a lower XP (cf. van Gelderen 2011, 2007).

Ackema & Neeleman (2003) propose a c-command relationship between C and the subject, such that C can host the agreement features of the subject. This particular argument restricts the phenomenon of complementizer agreement to the post-C domain, as the subject must occur in a lower syntactic position than C in order to be c-commanded. These arguments are largely concerned with the synchronic aspects of agreement in C-agr contexts, without

approaching the historical development of the phenomenon. Because the notion of c-command in itself does not account for the variation attested between varieties, this dissertation eschews c-command in favor of van Koppen's (2005) locality constraint on the feature-checking of the u-Phi features (uninterpretable features) on C and the i-Phi (interpretable) features of the subject (or subject position).[3] Combined with van Gelderen's (2011) Lexicalist approach – which holds that features are inherent on lexemes and licensed in the syntactic derivation – van Koppen's work provides a sufficiently local domain in which feature-checking may be located (and constrained). This lexical-based, locally-constrained model for the feature licensing is additionally conducive to a historical application; because reanalysis occurs in the lexicon, the basic agreement structure and locality does not necessarily change through the phases of the C-agr Cycle (cf.§2.6).

In terms of the diachronic development of C-agr through grammatical change, two notable arguments have been put forward, both of which are centered on the post-C domain. Fuß (2004, 2005) and Haegeman (1992) both posit a change in the syntax as a result of the verb-subject and complementizer-subject syntactic domains. I will treat these two related accounts separately in the following §1.1.2 and §1.1.3, and synthesize the arguments in §1.2.

1.1.2. Fuß's account of C-agr

Fuß, in his account of Bavarian C-agr, sees the cliticization of post-C subject pronouns as being the domain for grammaticalization of new inflection, where subject pronouns are reanalyzed as agr-on-C, expressed as a complex C node. This reanalysis of enclitics as new inflectional morphology is portrayed below: in figure 1.1, a pre-C-agr stage exhibits cliticization of the

[3] 'Phi features' are properties inherent to a lexeme that are responsible for marking case, person, number and gender. Uninterpretable (u-Phi) features are dependent on Interpretable (i-Phi) features elsewhere in the syntax for the (overt) marking of agreement.

subject pronoun onto the syntactic node, C, with the subject raising from a lower XP marked by ‘i’; figure 1.2 shows a later historical stage, after the original subject pronoun has been reanalyzed as agreement marking on a complex C, with ‘i’ marking co-indexation (Fuß 2004: 79).

Figure 1.1.

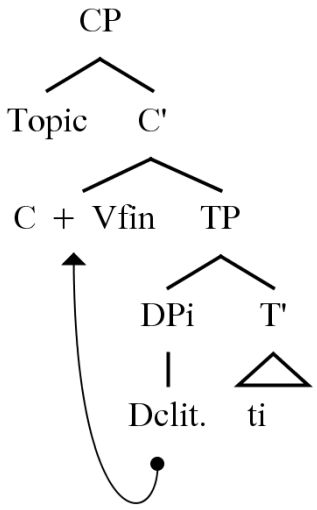
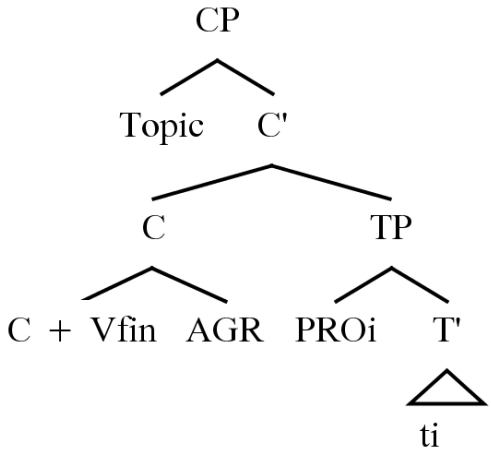


Figure 1.2.



Fuß’s (2004, 2005) account of the development of C-agr involves a single-stage reanalysis of pronominal subject clitics as agreement/inflection, with the resultant syntactic structure in dialects exhibiting C-agr being a complex agr-on-C. This reanalysis is a historic process that results in a change in the agreement-marking structures of the variety, specific to a given person-number combination, which may occur on multiple, parallel occasions (e.g. 2SG, as well as 2PL in Bavarian). The reanalysis of subject pronouns is therefore treated as a single-step process, regardless of the number of parallel processes of reanalysis of different pronouns across the paradigm. A fundamental aspect of his account that will be adopted in this dissertation is the notion that innovative C-agr affixes and inflection are not developed through a direct reanalysis of subject pronouns as inflection, but rather through the formation of innovative inflectional morphemes derived through phonetic hiatus effects in addition to pronominal cliticization, which

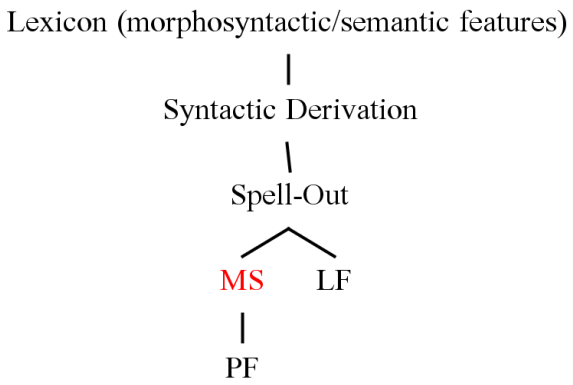
are together reanalyzed as affixes (cf. Somers 2011). This point is key to understanding the development of C-agr through a process of reanalysis, and will be discussed in greater detail in §2.2.

A second fundamental aspect of Fuß's analysis that will be adopted is the idea that the historical process of pronominal reanalysis results in a change in syntactic structure. Importantly, though, this process of reanalysis is – in Fuß's model – a single historical occurrence and not an active or synchronic process, i.e. reanalysis of subject pronouns as inflectional affixes is not part of the synchronic or syntactic derivation. In short: marking of C-agr is specific to the person-number combinations for which reanalysis has occurred; synchronic marking or licensing of C-agr is separate from the historical development that gave rise to the phenomenon. Taking this historical reanalysis of subject pronouns further (§2.1, §2.6), this dissertation's application of van Gelderen's (2011) Linguistic Cycle to C-agr phenomena will similarly treat C-agr as derived from the reanalysis of subject pronouns as inflectional affixes, but adds also the application of a cross-linguistically attested model of grammaticalization which motivates the reanalysis of pronouns as affixes also as a language-internal development. Additionally adopted in this dissertation is van Gelderen's use of feature economy (§2.1), which formalizes the reanalysis of pronouns within a feature-based model. The analysis of syntactic features – especially of the distinction between u-Phi and i-Phi features – provides first a clear definition of what pronouns and affixes have in common and therefore what reanalysis entails. As will be seen in §2.6.2 and §2.6.3, the application of feature economy also motivates the introduction of a second, compensatory subject pronoun – known as 'clitic doubling' (CD). Within this model applying a feature economy analysis, the alternation between attestations of pro-drop and CD observed in C-agr contexts observed in many varieties can be positioned within the C-agr Cycle as

respectively the effect of pronominal reanalysis, and the compensatory introduction of a new subject pronoun encoded with the requisite subject features.

Building on his historical account of the development of C-agr, Fuß then models the synchronic licensing of C-agr morphology in a Distributed Morphology (DM) framework (cf. Halle & Marantz 1993, 1994, Siddiqi 2004), arguing that C-agr is marked through the post-syntactic insertion of a dissociated (functional) morpheme "that has been valued in the syntax" (Fuß 2004: 73). The DM approach rejects the Lexicalist approach, reversing the order of operations of the Minimalist Program (MP). The MP selects lexemes from the Lexicon already with inherent features on them, which are licensed in the syntactic derivation and spelled-out in a phonetic form. DM, however, begins with a bundle of abstract features, which undergo syntactic derivation. Only after syntactic derivation are the optimal Vocabulary Items (VIs) selected as the phonological component. In this respect, DM follows the 'Late Insertion Principle' (Halle & Marantz 1994), where phonological features are not realized until a later period than is claimed by MP. Therefore, Fuß does not identify the inflectional morphology associated with C-agreement as a direct output on C, where it is licensed, but rather that "... the morphological component operates post-syntactically, interpreting the output of the syntactic derivation (2004: 67). In accordance with the principles of DM, Fuß claims the morphological inflection on C-agreement is post-syntactic, that is, the morphological output interprets the syntactic derivation (Fuß 2004: 67):

Figure 1.3.



In figure 1.3 above as proposed by Fuß, inflectional morphology specific to C-agreement does not come as bound morphemes out of the Lexicon, but is rather added at MS, after syntactic derivation, but before PF (Phonological Form). This point – highlighted in red – is a departure from Chomsky's Y-Model, with the intention of treating morphology has having a more autonomous role than is commonly assumed within a Lexicalist, Principles and Parameters model. This late insertion of a dissociated morpheme in Fuß's model, however, must still be licensed in the syntactic derivation (2004: 73), which begs the question as to why morphology must be a more predominant linguistic module, and not simply licensed in the syntactic derivation. Additionally, it seems counter-intuitive to posit the development of C-agr as resultant from a syntax-phonology interface, but then to posit a syntax-morphology interface as being primarily responsible for the synchronic analysis of C-agr. Lastly, Fuß treats C-agr morphology as marking the same person and number agreement as the verbal paradigm, without a clear analysis of either what motivates reanalysis of subject pronouns as affixes, nor even a description of what differentiates a subject pronoun from an inflectional affix. Therefore I adopt the Lexicalist perspective (Chomsky 1995, 2002, 2005), in which lexemes are encoded with syntactic, morphological and phonological information, which is licensed – or checked – in the syntactic derivation, being realized phonetically only afterwards. Combining the Lexicalist and

Linguistic Cycle approaches provides a clear definition of the difference between affix and subject clitic, and also identifies a clear, feature-based motivation for reanalysis and subsequent renewal. This will be particularly important in chapter 3 in the discussion of not only the reanalysis of pronominal subject clitics from a historical perspective, but also the licensing of agreement at identifiable synchronic phases of the C-agr Cycle.

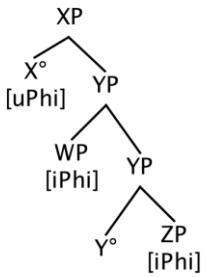
1.1.3. Haegeman's account of C-agr

Haegeman (1992) builds a similar historical argument for the development of C-agreement in West Flemish, where it would seem that the paradigm for complementizer agreement was built through a process of post-C pronominal cliticization. However, West Flemish also exhibits pronominal cliticization in the pre-C – or topic – position, and De Vogelaer, Neukermans & Wyngaerd (2001) do call into question the degree to which the complementizer agreement paradigm is (visibly/saliently) related to the paradigm of enclitic verbal agreement, however historically related they might be. Haegeman claims they are exactly the same (1992: 37). One particular difference between Haegeman (1992) and Fuß (2004, 2005) is the marking of agreement, and at what point in the syntactic derivation it is realized. Both Fuß and Haegeman posit a degree of reanalysis, such that pronominal forms may be reinterpreted as inflectional morphology, and inflectional verbal morphology may be overtly realized on lexical categories other than finite verbs. However, where Fuß's argument discussed above posits a post-syntactic output, Haegeman posits an agreement between C and I, and co-indexes the heads of both phrases, which in C-agreement would be the complementizer and finite verb, respectively (1992: 53):

> Intuitively, postulating agreement between I and C is not an implausible move. It is usually assumed that the node I contains the features [Agr] for person and number agreement and the feature [Tense]. Subject and I agree with respect to Agr. English C and I are matched with respect to the feature [Tense]: the complementizers *that* and *if*, for instance, can be said to be specified positively for the feature [Tense] and they select a matching IP with a [+Tense] head. This feature matching of C and I with respect to tensedness could be interpreted as a form of agreement. But this feature is not restricted to the feature [+Tense]. Tensed clauses are finite clauses, i.e. clauses that exhibit subject-verb agreement.

What is important is that ascribing features of [+Tense], or other features, to C, is that the feature is linked to the syntactic node, and not specifically to the finite verb. This would explain how the sentence's subject can be assigned nominative case when V-to-C movement is blocked by a true complementizer: the subject is assigned case by a relationship with C, and not with the finite verb that occupies C in main clauses. In a broader sense, this is an argument for u-Phi features on C. Expanding on the notion of agreement marking on C are works by van Koppen (2005), Cremers & van Koppen (2008) and van Koppen & Putnam (2009). Van Koppen's synchronic analysis posits u-Phi features on C, which must be checked against the i-Phi features of a (pronominal) subject element within a clearly-defined local domain, illustrated in figure 1.4 below (van Koppen 2005: 14).

Figure 1.4.



This diagram posits a head, X°, with uninterpretable features (u-Phi), which can be checked against either the interpretable features of phrase WP or ZP. Van Koppen argues, however, that "the probe ends up agreeing with WP and not with ZP, as the former goal is more local to X°" (2005: 14). This locality constraint holds that inflected complementizers should get their i-Phi features through feature-checking against the subject position at spec,TP (which can host a full subject XP) and not through a relationship with – or syntactic derivation involving – the VP. This is key to the reanalysis of subject pronouns as inflectional affixes (this dissertation, chapters 2 and 3), as well as analogical extension of verbal inflection specific to the syntactic node C (discussed in chapter 4). This locality constraint of van Koppen's is added to the MP principle that affixation is base-generated in the lexicon and becomes overtly realized on C through a goal-probe relationship with T/TP (cf. Chomsky 2002, Carstens 2003, van Koppen 2005, van Koppen & Putnam 2009). I adopt this basic agreement structure, with the caveat that the agreement structure will vary, depending on the progression of the C-agr cycle.

1.2. The Linguistic Cycle

The Cycles framework is most often associated with Jespersen's (1917) eponymous cycle for the historical development of negation, though his was not the first work in that vein (cf. Condillac 1746, Bopp 1816, Humboldt 1822). Based on cross-linguistic typologies at different phases of language change, cycles are unidirectional, cyclical patterns of grammaticalization and subsequent compensatory innovation. Grammaticalization is a natural 'weakening' of a lexical item, such that the lexical item no longer conveys the same meaning (Jespersen 1917: 4). Divided into a basic, three-phase cycle, phase I involves the weakening of the original element;

in phase II, the original element is reinforced by an innovative marker[4] from the same lexical category; and in phase III the innovative marker supplants the original marker. Adopted in this dissertation is an expansion of phase II into sub-phases IIa and IIb, following Schwenter (2006), Breitbarth (2009) and Willis (2010). In phase IIa, the reinforcing element is optional with an emphatic reading, whereas in phase IIb, the reinforcing element is non-emphatic and obligatory. An example (1.2) is given below, illustrating the expanded three-phase cycle using French data on negation(Willis 2010, Schwenter 2006).

1.2. Stage I. negator + verb:

Je ne sais "I don't know"

Stage IIa. negator + verb + emphatic negator:

Je ne sais (*pas*) "I don't know"

Stage IIb. negator + verb + obligatory negator:

Je ne sais pas "I don't know"

Stage III. verb + negator:

Je sais pas "I don't know"

This division of phase II into sub-phases accounts for extended periods of co-occurrence of both the original and innovative markers. Without such sub-phases, it would otherwise appear that

[4] 'Marker' will be used here as a generic term to refer to the lexical or functional element that is primarily responsible for marking subject-agreement. A 'marker' may therefore be a pronoun, pronominal clitic, or inflectional affix.

children acquire redundant grammars in violation of economy principles for multiple generations, before suddenly and unexplainably transitioning into phase III of the cycle.

Though Jespersen (1917) does not explicitly use the term ‘grammaticalization’, his description of the process and term of ‘weakening’ is interchangeable with a modern understanding of ‘grammaticalization’, also in works concurrent with Jespersen, defined by Meillet (1912: 132; Campbell & Harris 1995: 19-20):

> The weakening of the sense and the weakening of the form of auxiliary words go hand in hand; when both are rather advanced, the auxiliary word can end up being nothing more than an element deprived of its own meaning, attached to a main word to mark its grammatical role. The change from word to a grammatical marker is complete.

A clear and classic definition of grammaticalization comes from Kuryłowicz (1965: 52): “Grammaticalization consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status”. In linear grammaticalization, the process is observed to be overwhelmingly unidirectional across languages, though with some exceptions (cf. Campbell & Harris 1995: 337-338). In cyclical patterns of grammaticalization, a return to phase I occurs not through a reversal of the directionality of grammaticalization, but rather through a completion (or multiple completions) of the cycle. Von der Gabelentz (1901) conceives of such completed cycles as ‘spirals’ rather than closed circles, akin to a ‘coiled rope’, where ‘simple’ languages gradually and steadily increase in complexity over time, as non-terminal, non-repeating processes of language change continually leave remnants of earlier stages of the language. This model does account for the increased complexity in a language over time – even in a language that undergoes cyclical patterns of grammaticalization. More recent applications of a Spirals framework (e.g. Dahl 2004) favor an Emergent Grammar approach, which mathematically predicts – and accepts – a certain

number of minority forms that may remain frozen in the grammar from previously completed cycles. However, in this acceptance of relic forms as exceptions to the general trend, this approach loses the predictive power of generative models. In following van Gelderen's Linguistic Cycle as a model, this dissertation maintains predictive power by drawing on evidence from multiple languages, not to apply a framework that is claimed to be without exception, but more empirically to apply a framework that is supported typologically and cross-linguistically.

One approach that differs from the linear, unidirectional model of language change is Lightfoot's inertia model of acquisition (Lightfoot 1979, 1991; Lightfoot & Westergaard 2007). This model focuses on 'cues' present in the input or on 'triggering experiences', which are interpreted and analyzed by the innate language faculty of a child, and form the basis of the parameters of the language-specific grammar. There is therefore no directional language change to speak of, because language is acquired new in every child, without any historical aspects of a given language being acquired that are not present in the input. However, while a given I-language (Internal language, roughly equivalent to a competence grammar) may be thought of as chronologically discontinuous, the I-language that a child builds is derived from input from the E-language (External language, similar to the performance grammar) of the parent(s). In this respect, language is thought to replicate a certain amount of the grammar of the input, with the notion of language change being derived from the inability to perfectly duplicate the I-language of the previous generation; language change is therefore technically an illusion, though the accuracy with which a child replicates – or does not replicate – the I-language of the previous generation is often applied to a less theory-specific notion of language change over time. Particularly in the reanalysis of derived forms as basic, i.e. 'simplification' (Kiparsky 1996: 146), it is clear that the child interprets the E-language of the input as the I-language. Lightfoot's

(1979) 'Transparency Principle', which requires derivations to be minimally complex, would also predict a reanalysis in favor of less 'opaque' structures. Similarly, language change may occur in apparent time in instances of reanalysis of ambiguous input, including performance aspects of the E-language not present in the I-language. Such is the case with the reanalysis of hiatus effects, which effects the genesis of innovative inflectional morphemes in the historical development of C-agr (§2.2). Lightfoot's acquisition-centric generative model is therefore here adopted in part, as one component of language change over (apparent) time: this dissertation acknowledges the clear role of acquisition in language change and the development of C-agr.

Alternative concepts of how language changes over time may at first blush be theoretically opposed to Lightfoot's model – particularly those that argue for internally-motivated language change (cf. Lightfoot 2010) – though I draw from both edges of the spectrum to claim that both discontinuous inertia and continuous, cyclical grammaticalization may co-occur in language change. Models like van Gelderen's Linguistic Cycle consider attested cross-linguistic tendencies for linguistic change in a comprehensive manner, which not only provides empirical evidence upon which typologies may be established, but also provides arguments for the motivation of the mechanisms of linguistic change, including the motivation for grammaticalization, and thereby for the initiation and progression through the C-agr Cycle. Focusing on language-internal motivation and speaking on negation, Jespersen argued that "[s]imilar renewals of linguistic expressions may be found in other domains as well, but in this instance they are due not only to the general inconstancy of human habits, but to specific causes operating on these particular words" (1917: 4). Jespersen elsewhere states, regarding similar developments in English, French and German that "syntactical correspondences must, of course, have developed independently in each language – in consequence of natural human tendencies

on a common basis (1917: 14). In van Gelderen's work, the initiation and progression of the Linguistic Cycle are similarly motivated by language-internal processes. Subject pronouns become progressively more grammatical and less lexical in nature, through the loss of i-Phi features (van Gelderen 2011: 41).

Building on the strong impetus towards a push-chain motivation for grammaticalization, this dissertation follows also Breitbarth (2009) in considering pull-chain effects: drawing on 2011-2012 recordings from Wisconsin Heritage German and dialectal evidence from Weise (1907), it is argued in §2.6 that the grammaticalization of subject pronouns – as well as the appearance of u-Phi features on C – may be initiated through a phonology-first process akin to Lightfoot's model, where phonetically-derived hiatus effects resultant from pronominal encliticization are reanalyzed as innovative inflectional morphology (cf. Somers 2011 for a similar account of German 2SG *-st*). Returning to a unidirectional, language-internal model, the introduction of a second, compensatory subject pronoun attested in the later phases of the C-agr Cycle must be a change originating in – or motivated by – the grammar itself, as innovative and compensatory elements are by definition not present in the E-language upon which I-language is based (to use Lightfoot's terminology). It is therefore necessary to incorporate both an acquisition-based inertia model, as well as an internally-motivated grammaticalization model in order to provide a full account of the reanalysis and compensatory renewal attested in the data. This will be further explained in §2.6, where my framework is laid out in full detail.

1.3. An alternative mechanism

In addition to an account of C-agr as participating in a Linguistic Cycle in chapters 2 and 3, I also present arguments in chapter 4 that C-agr may develop historically from an entirely different

process of analogical extension of the verbal paradigm to the CP domain. The primary goal of chapter 4 is not to provide a competing account of the primary arguments outlined throughout the rest of this dissertation, but rather to consider the possibility that analogical extension is an additional mechanism of linguistic change that might act either as a second, parallel path by which C-agr developed in some varieties, or as a complementary mechanism that provided an additional impetus for the reanalysis of subject pronouns in the development of C-agr through The Linguistic Cycle.

Following work by Zwart (1993) and Kathol (2001b), as well as related work by De Vogelaer (2010), it is shown that innovative pronominal and inflectional morphology – including that specific to C-agr contexts – may be derived also through analogical extension. Zwart (1993) provides a one-to-one schema for this process, extending verbal inflection to complementizers; and De Vogelaer (2010) provides a detailed and generalizable model not only for the extension of existing morphemes, but also for the analogical extension – or generalization – of innovative morphology. Regarding the mechanism of extension as a process of language change, this dissertation follows Harris & Campbell in two main points: 1) that "extension can eliminate exceptions and irregularities by bringing the new analysis into line with the rest of the existing grammar" (1995: 97); and 2) that extension is rule-governed and based analogically on extant elements of the grammar, that "the process of extension is systematic … . Observed extensions generalize to a natural class based on categories already relevant to the sphere in which the rule applied before it was extended" (1995: 101). Applied to C-agr, (analogical) extension of the inflectional paradigm in whole or in part to complementizers levels the asymmetry between main and subordinate clauses, and extends u-Phi features present on the syntactic node C in main clauses exhibiting V2, such that u-Phi features are also present on C in subordinate clauses where

the finite verb remains *in situ*. However, Harris & Campbell's formalized constraint on extension, "Extension of a rule R is limited to removing a condition from R" (1995: 114), is not consistent with C-agr phenomena: analogical extension (in the sense of Zwart 1993) of verbal inflection to C-agr contexts results in an increase in complexity. A definition of extension specific to C-agr must therefore build on the notion of 'elimination of exceptions and irregularities' through a 'systematic' extension to a related natural class, which also allows for an increased complexity through the addition of syntactic constraints, features or agreement structures.

In chapter 4, following the line pursued by Zwart and Kathol, I argue that analogical extension in C-agr contexts is restricted to C (or the CP domain), which results in observable differences between the cycles and analogical-extension types of C-agr with respect to pro-drop. The locality of analogical-extension specific to C, however, is completely consistent with van Koppen's (2005) locality constraint, as the analogical extension is a 'reshaping' of the complementizer, and not a syntactic derivation from a lower XP, e.g. VP (Zwart 1993).

1.4. Chapter summary and conclusion

What C-agreement demonstrates is that speakers must be intuitively aware of the properties and scope of C; and that the overt realization of Phi-features is not the result of a single historical development, or of a single synchronic structure marking agreement. In the following chapters of this dissertation, I seek to shed light on the variation apparent in varieties exhibiting C-agr, and to explain them as related agreement structures either specific to a given phase of a subject-agreement cycle, or developed through an analogical process. This dissertation therefore differs from previous literature on the topic of C-agr, in that I do not attempt to provide a single

explanation that is applicable to all attestations of C-agr; rather, I allow for subtle variation in the synchronic marking of agreement based on the relative progression through the C-agr cycle, or based on an alternative development of analogical C-agr.

All accounts of C-agr in this dissertation remain consistent with van Koppen's (2005) locality constraint; and through the application of the Principles and Parameters model of syntactic theory (MP) and the Linguistic Cycle framework, this account retains predictive power and cross-linguistic applicability. I have laid out my arguments in brief for using the Linguistic Cycle framework and Minimalist Program, though that does not preclude the use of other frameworks, working to hybridize diachronic and synchronic approaches (cf. Reis 1985 and Kathol 2001a for linear HPSG accounts).

It is the goal of this dissertation to build a comprehensive and comparative account of C-agr that is rooted in the diachronic development of the phenomenon. This is accomplished through syntactic, morphological and phonetic diagnostics in order to identify incidence of grammaticalization and reanalysis, as well as the progression through a Linguistic Cycle. I now turn to a more detailed description of my methodology for analyzing C-agr phenomena, as well as a synopsis of historical prerequisites for the development of C-agr.

Chapter 2

2.0. The Historical Prerequisites, Origin and Development of C-agr

Otto Jespersen argued that elements marking negation underwent an observable, cyclical pattern of 'weakening' and subsequent 'strengthening', which I understand in modern terminology as grammaticalization and compensatory renewal. As one element 'weakened', it lost the ability to mark negation. Subsequently the feature was reinforced and later supplanted by an innovative marker. He describes this cyclical pattern of language change specific to negation, writing: (1917: 4):

> The history of negative expressions in various languages makes us witness the following curious fluctuation: the original negative adverb is first weakened, then found insufficient and therefore strengthened, generally through some additional word, and this in its turn may be felt as the negative proper and may then in course of time be subject to the same development as the original word.

Jespersen added that "similar renewals of linguistic expressions may be found in other domains as well", though never pursued the extension of the cycles framework in a systematic manner, because he attributed them to "the general inconstancy of human habits" and not to "specific causes operating on these particular words" (Jespersen 1917: 4). The observation had, however, been observed by other scholars previous to Jespersen (cf. Bopp 1816, Humboldt 1822, among others), and extended to other lexical categories and phenomenon as a model for how language changes by other scholars since Jespersen. Language change is thus not thought of as the steady, linear de-evolution from a parent language, but rather as a self-renewing, functional system rooted in the necessity to communicate. Subsequent work has found similar cyclical patterns of renewal in other lexical items (Greenberg 1978, Givón 1978, van Gelderen 2007, 2009, 2011,

Breitbarth 2009, and Willis 2010, 2011, among others), generalizing the process as three separate phases, developing the theoretical framework, and extending the cycle to other lexical categories and phenomena. Adapted from Jespersen's observations: In phase I, a lexical or grammatical item 'weakens'; in phase II an innovative, often emphatic marker reinforces the original marker; and in phase III the innovative marker supplants the original marker. Following phase III, the cycle may repeat.

Figure 2.1.

Stage I: original marker > 'weakens' >

Stage II: original marker + reinforcing element >

Stage III: reinforcing element supplants original marker

This provides a model, adopted here, for the diachronic process of grammaticalization observable also in C-agr phenomena, with the cycle of renewal involving specifically the marking of subject agreement through either pronominal of inflectional agreement. This work is the first to apply the cyclical model of language change to C-agr phenomena.

Breitbarth (2009) builds on Jespersen's Cycle, though departs from interpretations of Jespersen's (1917) 'strengthening' in phase II as being solely related to emphasis. Breitbarth argues that "the two markers present at stage II of Jespersen's cycle are functionally different" (2009: 92), and that the difference in her data set is in the conveyance of the marking of the features polarity and negation. In West Germanic dialects with observably longer periods of co-occurrence (Phase II), such as Dutch and Low German, the original marker remains a polarity

marker in agreement with the innovative marker, which takes on the duty of marking negation (Wallage 2005, Breitbarth 2009):

Figure 2.2.

stage I: *ne* [pol:neg] >

stage II: *ne* [pol:] + *not* [pol:neg] >

stage III: *not* [pol:neg]

The period of co-occurrence of both markers during phase II is therefore not redundant, though the difference between the functions of the original and reinforcing element requires a more fine-grained analysis. Breitbarth (2009) and Willis (2010) follow Posner (1985), Schwegler (1988), and Ladusaw (1993), dividing phase II into sub-phases IIa and IIb. Phase IIa is characterized by an optional, emphatic reinforcing element; in phase IIb, the reinforcing element has lost the features [+emphasis] and has become obligatory. His example of this distinction is given in figure 2.3, using French data (Schwenter 2006, Willis 2010):

Figure 2.3.

Stage I. negator + verb: French *Je ne sais* "I don't know"

Stage IIa. negator + verb + emphatic negator: *Je ne sais* (*pas*)

Stage IIb. negator + verb + obligatory negator: *Je ne sais pas*

Stage III. verb + negator: *Je sais pas*

Similarly splitting phase II into phase IIa and IIb, Breitbarth (2009) agrees with Willis (2010) with respect to the obligatory nature of the reinforcing element in phase IIb, and argues that stage IIa has "an obligatory preverbal negator and an optional emphasiser... the preverbal negator is still the expression of sentential negation, while the emphasiser is not yet." At the transition from IIa to phase IIb, "the postverbal element has become compulsory", supplanting the role of the original marker, though the original marker still remains (Breitbarth 2009: 84).

2.1. The subject-agreement cycle OR reanalysis through grammaticalization

Because the lexical items involved in Jespersen's Cycle do not inflect, distribution and co-occurrence of these lexical items is the only means by which reanalysis can be measured. Breitbarth and others therefore rely entirely on distribution of the original vis-à-vis reinforcing elements, and the feature-marking of each element is not apparent from their surface form (s-level). Adopting a cycle of renewal model with sub-phases IIa and IIb, and adapting that model to C-agr phenomena, yields a clearer picture of the distinctions between the two sub-phases. In addition to diagnostics dealing with relative distribution of both markers, overt morphological marking (i.e. inflection) on the complementizer allows for a number of additional diagnostics differentiate between phases IIa and IIb. The division of phase II into two sub-phases is therefore appropriate and identifiable in C-agr contexts.

Van Gelderen (2007, 2011) provides two additions to the framework, both related to feature economy. First, she identifies a number of grammaticalization patterns that are cross-linguistically consistent; and second, she identifies each stage based on the syntactic features present. Of the two types of cycles she identifies, the subject agreement cycle relevant to C-agr progresses as seen in the figure 2.4 below (van Gelderen 2011: 41).

Figure 2.4.

Adjunct		Specifier		Head		affix
emphatic	>	full pronoun	>	head pronoun	>	agreement
[semantic]		[i-Phi]		[u-1/2][i-3][u-#][5]		u-Phi

Van Gelderen therefore provides both a clear syntactic definition of the stages of reanalysis specific to the subject agreement cycle, but also provides a means for adapting diachronic change through reanalysis to a formal syntactic model. The focus, however, remains on the process of reanalysis, where this model, "allows us to see cross-linguistic variation as located in lexical items, not in the computation" (van Gelderen 2007: 41). She continues (2007: 41):

> Changes connected to the subject agreement cycle occur when the interpretable person (and gender) features of a full pronoun are reanalyzed, i.e. selected from the lexicon, as uninterpretable when they become agreement. Topic/emphatic pronouns have semantic phi features that can be reanalyzed as interpretable and subsequently as uninterpretable. The reanalysis means that the phi features are reanalyzed from interpretable on the (pro)noun to uninterpretable on T as part of the agreement.

Each subsequent phase of the cycle is therefore triggered by a reanalysis of the features of the part of speech (here a subject pronoun). Being base-generated in the lexicon with different features – or taken out of the lexicon with different features selected – each different phase of the subject agreement cycle interacts differently with the syntax, marking agreement in a somewhat different way at each phase of the cycle. Therefore, each phase of C-agr cannot be explained

[5] Van Gelderen argues that first and second person tend to participate earlier in processes of grammaticalization. The reanalysis from i-Phi to u-Phi features therefore occurs earlier in first and second than in third person.

with a single agreement structure or constraint that applies to all phases; rather, the syntactic licensing of agreement in C-agr contexts is differently structured in each individual phase.

The formal synchronic explanation for the licensing of C-agr is that affixation is base-generated in the lexicon and becomes overtly realized on C through a goal-probe relationship with T/TP (cf. Chomsky 2002, Carstens 2003, van Koppen 2005, van Koppen & Putnam 2009). In Haegeman's (1992) study on C-agr in West Flemish, she presents a similar argument in a Government and Binding (GB) framework, "Intuitively, postulating agreement between I [or T] and C is not an implausible move. It is usually assumed that the node I contains the features [Agr] for person and number agreement and the feature [Tense]. Subject and I agree with respect to Agr". (1992: 52). I adopt this basic explanation of agreement between C and T here, with the single caveat that the basic agreement structure adopted does vary, depending on the phase of the cycle of reanalysis (cf. chapter 3). Repeating Bayer's (1984) example below, we review a structure from Bavarian that inflects the complementizer *wenn* (English "if") for second person singular, and licenses pro-drop (Bayer 1984: 233).[6]

2.1. *Wennst* *kummst*

if-2SG PRO come-2SG

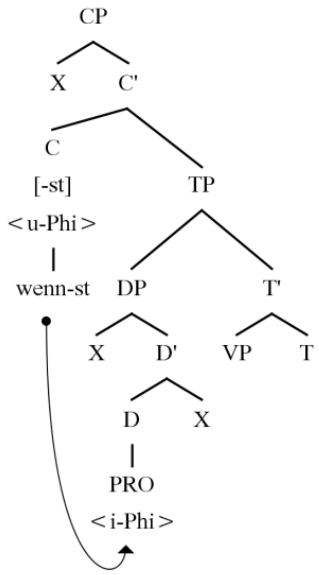
"If you come"

The tree diagram below illustrates Bayer's example in a way consistent with the Minimalist frameworks of Carstens (2003), van Koppen (2005), and van Koppen & Putnam (2009) with respect to C-agr. All features of lexical items, including agreement, are base-generated – and therefore present – in the lexicon. The purpose of the syntactic derivation is to 'check' those

[6] As argued in chapter 3, this is an example of phase IIa of the subject agreement cycle.

features so that they may be overtly realized in the syntactic output. In the example below, the head C has inherited u-Phi features for subject agreement marking through reanalysis. The affix *-st* for marking second person singular will therefore be realized on that node as an affix on the true complementizer *wenn*, after those features are checked against the subject position at spec,TP (figure 2.5).

Figure 2.5.



The result is an inflected complementizer, and an utterance without an overt subject pronoun. Matters of distinguishing clitic from affix, as well as the nature (and evidence) of pro-drop will be discussed in chapters §3.2.6 and §4.3.

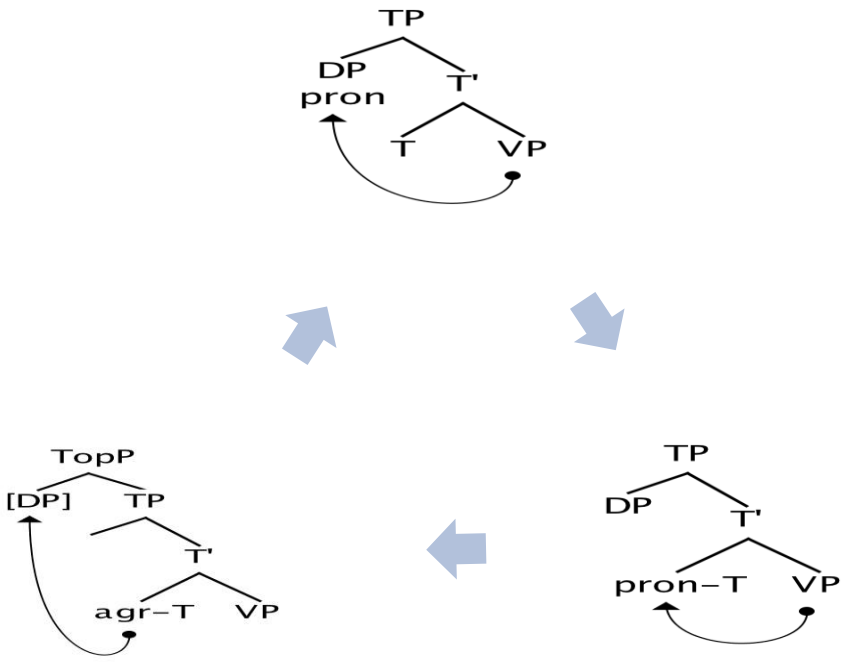
There are two motivations to consider in terms of the start of the cycle of renewal, discussed in detail in the following paragraphs. The first, following van Gelderen (2011) is language-internal and independent of surface form phenomena, where the regular, cyclical process of grammaticalization involves the natural 'weakening' of pronouns (in the sense of Jespersen 1917) in terms of feature economy. Jespersen's 'weakening' is quantified here

following van Gelderen (2011) as a loss of syntactic features: as pronouns lose their i-Phi features through grammaticalization and reanalysis as affixes, new, compensatory pronouns with i-Phi features are introduced. The second possible motivation is a Neogrammarian, phonology-first account, in which aspects of the sound module – phonetics and subsequently phonology – are the primary conditioning factors in linguistic change, irrespective of all other corresponding factors such as lexical category, clausal position, etc. (cf. Labov 1981 for further discussion). Compiled from literature on related phenomena, phonologically reduced clitics may be reanalyzed as affixes, leading to u-Phi features being present on the syntactic node, C. The resulting features on C act as a pull-chain to start the cycle, drawing subject pronouns towards reanalysis as affixes, which precipitates reinforcement of the reanalyzed pronoun with a compensatory pronoun. The Neogrammarian phonology-first account therefore provides an impetus in the surface form for language change that precipitates the same reanalysis of subject pronouns that is effected by van Gelderen's model of grammaticalization. My analysis of the data does not hinge on one particular motivation occurring exclusively, and indeed both may (co)-occur.

The subject agreement cycle specific to van Gelderen's application is very similar to the work of Breitbarth (2009) and Jespersen (1917), in that the motivation in her work is explicitly language-internal. Van Gelderen argues that, "the real sources of change are internal principles that bias the learner toward certain structures. ... [C]hange mainly comes from the inside" (2011: 4). Referring back to the earlier Figure 2.4 and accompanying quote, reanalysis occurs with respect to feature marking. Through a natural, cross-linguistically attested, language-internal process, subject pronouns lose their i-Phi features and must be reinforced by innovative

pronominal markers (usually demonstratives). This is laid out visually in the Figure 2.6 below (van Gelderen 2011: 42).

Figure 2.6.



The tree in the top figure is the original phase of a linguistic cycle, exhibited by English, Hindi/Urdu and Japanese, as well as West Germanic languages like Standard German and Dutch. In the bottom right corner, following van Gelderen's Head Preference Principle (2007, 2011), specifiers are reinterpreted as heads. Finally, in the bottom left, we see the last phase, where pronominal heads are reanalyzed as agreement, with a compensatory element inserted as an adjunct in a TopP phrase (van Gelderen 2011) or as a specifier contained within a given phrase (van Gelderen 2007). I assume that innovative elements are most likely introduced as merely emphatic adjuncts, but especially 1st and 2nd person pronouns are more quickly analyzed as specifiers with i-Phi features (van Gelderen, p.c.). Consistent with attested non-uniform

paradigms in C-agr varieties of German, Dutch, West Flemish and West Frisian (Table 3.4), this dissertation assumes that reinforcing demonstratives of differing number and person may occupy either adjunct or specifier positions at the same phase of the C-agr cycle, especially phase IIa (Figure 2.11, 2.12). Adapting van Gelderen's model to C-agr provides a motivation for reanalysis, as well as an application of that process of reanalysis and grammaticalization to formal syntactic theory (i.e. Minimalism). The subject agreement cycle also provides clear diagnostics in terms of syntactic structure and feature marking that differentiate multiple stages in the process of grammaticalization.

At this point, the initiation of the cycle in the first and second person pronouns warrants further discussion. To begin with, van Gelderen treats first and second person pronouns differently from third person both in their historical origin and synchronic function: since first and second person pronouns are typically derived from nouns, obliques or emphatics, but third person pronouns are regularly demonstratives, "the third person has either deictic or gender features whereas first and second person are pure person features" (2011: 38). It follows then that first and second person pronouns have fewer syntactic features (e.g. lacking deixis and gender), which already locate them as comparatively more grammatical than third person pronouns, which by necessity refer to a specific or pragmatic referent. Keeping in mind that agreement morphemes in West Germanic do not mark for deixis nor for gender, third person pronouns – as compared to first and second person pronouns – are further away on the subject-agreement spectrum from the pure person/number agreement, and must lose comparatively more syntactic features through grammaticalization before reanalysis can occur.

A second line of argumentation for the presence of C-agr occurring most frequently in first and second person is based in the morphology. Fuß (2004) presents an account based on the

principle of Morphological Blocking, arguing that innovative inflectional affixes *-ma* (1PL) and *-ts* (2PL) in Bavarian C-agr were originally derived from the reanalysis of hiatus effects, but crucially only entered into the C-agr paradigm because they were sufficiently different than the existing paradigm, and also repaired an ambiguity in the paradigm. Fuß writes, "the Blocking Principle licensed the development of new agreement formatives only for those slots of the agreement paradigm where the existing phonological exponents were less specified than their newly emerging competitors" (2004: 86). In this respect, Fuß places a restriction on the reanalysis of subject pronouns to parts of the agreement paradigm that are underspecified, such that *-ma* (1PL) is more specified than *-en* (which marks both 1PL and 3PL), and *-ts* (2PL) is more specified than *-t* (which marks both 3SG and 2PL). However, C-agr is not licensed for 1SG, since the null inflection Fuß assigns to it in the paradigm is not ambiguous within the paradigm. Expanding on the account provided by Fuß, the same principle of Morphological Blocking may prohibit C-agr in the third person, since the innovative *-ma* negates the under-specificity of 3PL *-en*; and the innovative 2PL *-ts* negates the under-specificity of 3SG *-t*.[7]

C-agr begins with the first and second person pronouns, but as noted in the previous paragraphs, the development of C-agr to different parts of the paradigm may be delayed or inhibited by a number of related factors. It is therefore not surprising that all varieties of West Germanic that exhibit C-agr do so in second person singular, less frequently in second person plural and first person plural, and comparatively infrequently for third person. The comparative lack of third person plural C-agr is accounted for, in that they are historically and fundamentally

[7] Fuß concedes, then, that the Blocking Principle poses a problem for 2SG, since the original *–s* inflection was not underspecified in the paradigm. However, he resolves the issue (2004: 87) by arguing that, at the historical point in which C-agr was developing, innovative verbal *–st* was competing with original verbal *–s*, with the former being originally restricted to the indicative mood. The innovative *–st* was therefore more specified than the original *–s* (which was underspecified with respect to mood), and was thus selected in C-agr contexts. While this account is consistent with Fuß's theoretical account, it is nevertheless worth noting that the parallel developments of verbal *–st* and C-agr *–st* involve more variables than other instances of C-agr.

bearers of more features than first and second person pronouns; grammaticalization of first and second person pronouns into other lexical (or functional) categories therefore progresses comparatively earlier. Additionally, Fuß's account sheds light on the number of co-occurring factors – especially the interfaces between morphology and both phonology and syntax – that can cause variation in the marking of C-agr across the paradigm, even within first and second person.

Building on van Gelderen's subject-agreement cycle (2011), this dissertation builds a modified version of the subject-agreement cycle specific to C-agr, taking into consideration not only the language-internal changes outlined by van Gelderen, but also the compounding effects of the interaction of phonology and morphology with the syntax.[8] Drawing also on other recent contributions to the Cycles Framework, the addition of sub-phases IIa and IIb to the standard 3-phase cycle, following Breitbarth (2009), allows for a closer analysis of the period of co-occurrence of original and innovative markers. In particular, van Gelderen's feature-based subject-agreement cycle, when located within Breitbarth's expanded notion of phase II, provides a more fine-tuned analysis of the simultaneous and ongoing reanalysis of both the original and innovative markers, during the phase of the cycle in which they co-occur. Additionally considering instances where C-agr develops without the reanalysis of subject pronouns (§2.2, §3.1), evidence from Heritage Wisconsin German shows a reanalysis of phonetically-derived hiatus effects as C-agr morphology, without (or chronologically prior to) the reanalysis of subject pronouns. In addition to language-internal principles guiding language change in the syntax, this evidence must be taken into account; we must additionally consider extra-syntactic factors, including also a Neogrammarian phonology-first account.

[8] Without considering phonological and morphological features, a bare analysis focused only on grammaticalization would account for the development of C-agr in attested varieties, but would not provide sufficient constraints on the development of C-agr to explain the lack of C-agr in other varieties, e.g. Low German (cf. §2.4 for the absence of C-agr in North Germanic). This dissertation therefore treats evidence from the syntax, morphology and phonology equally.

2.2. Phonology-first initiation of the C-agr cycle

The phonology-first account begins with the prosodic weakening of pronominal subject clitics post-C. In subordinate clauses in German and Dutch, in the presence of a true complementizer – that is, an element base-generated in C – the subject cannot raise to spec,CP, raising only to spec,TP, the syntactic node directly to the right of C. The position of the subject in subordinate clauses is thus regular and fixed, and additionally occurs in a prosodic position that does not bear secondary stress. German is not a quantity language, rather: "in standard German, well-formed prosodic feet are either quantity-insensitive dactyls (x'xx) or trochees (x'x)" (Hanna 2009: 201). The syntactic position directly following the first element in especially the subordinate clause is therefore prosodically unstressed. Additionally, in terms of bearing main stress, the grammatical category of pronouns is also unstressed, since they by their very nature refer to previous knowledge and therefore have low information weight. Lastly, pronouns may optionally bear sentence stress, particularly in contrastive examples, but are unstressed in neutral occurrences. Evidence of this phenomenon is observable across dialects of West Germanic, but is perhaps most visible in Modern Standard Dutch: "For all persons there exist two variants of the subject pronoun: a stressed 'strong' form and an unstressed 'weak' form. ... Strong forms and weak forms alternate in Standard Dutch and cannot co-occur" (Haegeman 1992: 60). A table adapted from Haegeman (1992) and van Gelderen (p.c.) is given below as Table 2.1.

Table 2.1. – stressed and unstressed pronouns in standard Dutch[9]

	stressed	unstressed
singular		
1	ik	‘k
2	jij	je
3	hij	ie
3	zij	ze
3	het	‘t
plural		
1	wij	we
2	jullie	jullie*
3	zij*	ze

In standard (spoken) Dutch, the unstressed variant of the pronoun is used post-C in subordinate clauses, and also in question formation, and subject-verb inversion contexts (Haegeman 1992: 60; Oosterhoff 2009: 62-63; Donaldson 2008: 67-69). Use of the stressed pronominal variant post-C yields a contrastive or emphatic reading, as in the examples 2.2 – 2.4 below, where example (a) is neutral, and example b is emphatic/contrastive.

2.2a. *Wat ga je dit weekend doen?*

what go you this weekend do?

“What are you going to do this weekend?”

2.2b. *Wat ga jij dit weekend doen*?

what go you.stressed this weekend do?

“What are *you* going to do this weekend?” (contrastive reading, or a specific reading, e.g. addressing an individual in a room of people).

[9] Asterisks denote the existence of dialectal forms: *jullie* may be reduced to ‘*je’* in pragmatic instances, or to avoid redundancy – or is supplanted by singular forms for imperative and abstract applications; *zij/ze* may be replaced by *hun*, pulled from the object pronouns, which has an *h* deictic element and is distinguished from the standard Dutch 3PL *ze*.

2.3a. ... *dat we* *geen tijd hadden.*

That we.unstressed no time had.

"That we didn't have any time."

2.3b. ... *dat wij* *geen tijd hadden.*

that we.stressed no time had.

"That *we* didn't have any time" (but presumably somebody else did have time)

2.4a. *Vroeger had 'ie het niet nodig.*

Earlier had he it not necessary

"He didn't need it earlier."

2.4b. *Vroeger had hij* *het niet nodig.*

Earlier had he.stressed it not necessary

"He didn't need it earlier." (but presumably somebody else did)

Phonologically- or prosodically-reduced pronouns are then subject to reanalysis, following the principles outlined in §1.2. The post-C syntactic domain where they occur has been demonstrated to be conducive to reanalysis, and such phenomena are attested in dialects of both German and Dutch. Somers Wicka in her dissertation on clitics in Otfrid's *Evangelienbuch,* argues that pronominal clitics appearing right-adjacent to verbs are not themselves the central component of their own phonological word, but rather form a prosodic word (pword) with the

verb. Otfrid is the earliest-known German-language author, and his Gospel harmony, the *Evangelienbuch,* is an original, non-translated poetic work with consistent patterns for rhythm and meter. As an early, original and metrically-sensitive text, the *Evangelienbuch* is a reliable example of 9th century patterns of cliticization. Somers Wicka further argues that the incorporation of a pronominal clitic into the preceding pword allows for a post-lexical phonological process of umlaut (2007: 9). In more recent work on the spread of the innovative *-st* inflection for second person singular in German, she takes the argument one step further, saying that the prosodic incorporation of pronominal subject clitics right-adjacent to the verb can lead to reanalysis, showing that the dental from the second person singular pronoun *du* extends to the original *-is* inflection (Somers 2011). Somers additionally shows that the innovative *-st* inflection appears first in the conditioned syntactic environment, then spreads beyond the indicative into the optative and preterit, supporting her account of the origin of reanalysis. In general, prosodic reduction creates an environment that is conducive to reanalysis. I add that subject clitics in the post-C domain are subject to reanalysis as affixes through one of two means: (1) ambiguity in input structures inhibit subsequent generations from accurately acquiring the grammar of the previous generation (cf. Lightfoot 1979, Lightfoot & Westergaard 2007). Children acquiring language cannot parse pronominal subject clitics as either subject pronouns or as affixes. And (2) reanalysis of the clitic as an affix through 'simplification' eliminates the post-lexical derivation that forms pwords, and instead interprets "the derived form as the basic" (cf. Kiparsky 1996: 146).

A similar process of reanalysis of clitics in subject-verb inversion contexts, as well as post-C in subordinate clauses, is provided by Kathol (2001a), and expanded on by De Vogelaer (2010). De Vogelaer provides an analogical model for the reanalysis of subject clitics post-C as

either innovative inflectional morphology or innovative pronominal forms. He presents data from Dutch showing the post-C syntactic domain as being a locus for innovation. Attested forms from some varieties of Flemish, Brabantic and Zeelandic show an assimilation of *gaan we* (English 'we go'), combining the nasal features of the [n] with the labial features of [w] to produce an innovative pronoun for the 1PL *me.*[10] This is shown in example 2.5. Additionally, we see that the innovative pronominal form can later be extended to environments where the same phonetic assimilation is not conditioned by adjacency. Example 2.6 shows an extension of the innovative pronoun into C-agr, i.e. extension from main clause into subordinate clause, albeit in the same post-C syntactic domain[11]; and example 2.7 shows that the innovative pronoun can be extended into the topic position while retaining the *me* realization conditioned phonetically in the post-C domain (De Vogelaer 2010: 15).

2.5. *Ga=me naar Brussel?* (Flemish, Brabantic, Zeelandic)

go=we to Brussels

"Are we going to Brussels?"

2.6. ... *da=me naar Brussel gaan.* (Flemish, Brabantic, Zeelandic)

that=we to Brussels go.1PL

"... that we are going to Brussels"

[10] This same development is also observable in Upper German varieties, where a form similar to standard German *gehen wir* becomes *gemma*, as well as in varieties of Frisian, dialects which also license C-agreement (cf. Fertig 2000).

[11] C-agreement can arise through the extension of the verbal paradigm into subordinate clauses, through a parallel (phonetic) development in subordinate clauses, or the result of the leveling of clausal symmetry (Stockwell 1977 – for the last argument only). For this distinction, identifying the historical origin of the clitic/affix is necessary, e.g. Dutch *Dat-e we hem een boek geve* is not a reanalyzed pronoun, but rather an extension of the verbal paradigm into C-agreement. A discussion of C-agr derived from analogical extension of the verbal paradigm will follow in chapter 4, where it is argued that analogical extension of the verbal paradigm is realized through inflection specific to C, and not licensed by syntactic derivation (cf. Zwart 1993, Kathol 2001b; chapter 4 of this dissertation).

2.7. *Me gaan naar Brussel.* (mainly West Flemish)

we go to Brussels

"We are going to Brussels".

In all three examples the innovative forms originate from phonetic effects in the post-C position, and subsequent reanalysis of the subject pronoun. The combination of this syntactic domain and process of reanalysis seen in these examples from German and Dutch is the same as my proposal for the weakening and reanalysis of subject pronouns in C-agreement.

Fuß (2004, 2005) provides a similar account of the development of inflectional affixes in C-agr contexts based on data from Bavarian, where the second person singular inflection present on C is resultant from a parallel process as the spread of innovative *-st* in the verbal paradigm, where the *t* is taken from the pronoun and the *s* is a hiatus effect.[12] Fuß (2004: 64) attributes the second person plural inflection, *-ts* in Bavarian to the similar reanalysis of a cliticized, formerly dual pronoun *ës* in the post-C position, where the *s* is derived from the pronoun, and the *t* is the hiatus effect. Pfalz (1918) notes that the *-ts* inflection is still largely confined to the conditioned environment, appearing only in post-C position. Fuß's diachronic approach to the development of C-agr is consistent with processes described by Somers (2011) and De Vogelaer (2010).

[12] Fuß provides a similar account of the spread of innovative *–st* inflection for second person singular in German to the account of Somers (2011) based on an analysis of Tatian's 9th century East Franconian Gospel Harmony. Fuß does attribute reanalysis specifically to the formation of pwords. He similarly argues for the spread of the innovative inflection beyond the conditioned environment to clause-final position, but does not provide evidence of a spread to other tenses or moods as Somers (2011) does.

2.3. Historical Prerequisites for C-agr

2.3.1. Historical development of V2 and the collapse of the IE Topic/Focus

There are at least two different historical developments in Germanic that are prerequisites for cliticization of pronouns on C, including 1) the development of V2, and the collapse of the IE topic and focus in the CP domain into a single pre-field element to the left of C, which allow for syntactic and linear adjacency of C and the subject in subordinate clauses and subject-verb inversion contexts; and 2) the development of true complementizers. Both developments combined create a syntactic domain conducive to reanalysis – particularly at the phonological level – and will be discussed in §2.6 below.

Almost all modern West Germanic dialects[13] are subject to the V2 constraint, which is defined as the obligatory raising of the finite verb to C in the absence of a true complementizer[14]. The combination of these two developments – V2 and a single pre-field – are necessary for the creation of the syntactic domain in which subject pronouns occur directly right-adjacent to the element in C, including: subordinate clauses, subject-verb inversion in main clauses, and question formation. These two developments are therefore prerequisites for the development of phonology-first C-agr.

In terms of the structure of the Proto-Germanic CP, Kiparsky argues that (1995: 140)

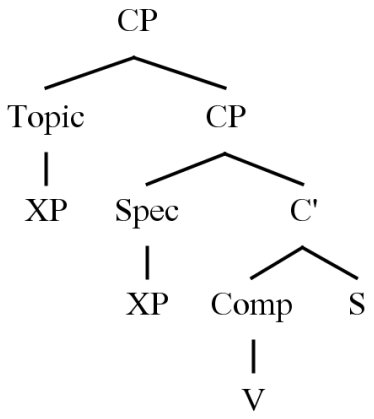
> in English and in the early Germanic languages the Specifier of CP is a focus position, which hosts wh-phrases, demonstratives, and negation. This specifier position can in turn be preceded by a topicalized/left dislocated element adjoined to CP; if it is an NP, it must bind a resumptive pronoun in the clause. In addition, constituents can be topicalized by adjunction to S.

[13] The V2 constraint has been lost in Modern English and Cimbrian, though it was present at earlier stages.

[14] A true complementizer is a lexical item base-generated at C.

A simplified version of the diagram from Kiparsky (1995: 140) is given below in Figure 2.7, where the SPEC and COMP positions are assumed to leave traces at lower positions in S; TOPIC is assumed to be co-indexed with PRO in S:

Figure 2.7.



This particular typology of different positions in the C domain, which is illustrated in earlier OHG texts as well as throughout the history of English, allows for a variety of possibilities with respect to the position of the left-dislocated finite verb. Since there are more landing sites at higher syntactic positions than the finite verb, the finite verb is not limited to predictably occurring in one syntactic position, and may occur in the first, second or third position of a sentence, depending on which syntactic positions above C are filled. What then follows is that verb-second (V2) in Germanic arose due to the collapse of these focus and topic positions into a single position, where "the old focus position ... was generalized into the prefield in the Germanic verb-second languages" and that "[t]his was also the specifier (Spec,C) of the projection whose head (C) was the target for generalized verb movement" (Axel 2007: 234). This essentially eliminates the higher CP projection in the diagram above, simplifying it to the standard binary XP and the CP structure employed for the modern dialects of West Germanic.

The resulting structure, with only one position for both topic and focus elements, will allow for constructions where the raised, finite verb will occur in the second syntactic position.[15]

The later, further development of the CP in Germanic was underway from the earliest attestations, but was incomplete, not being obligatory in all clauses. Following Thiersch (1978) and Eythórsson (1996), the presence of a CP-operant in Runic or Gothic activated a fully-functional phrase and head that was capable of hosting clitics. Clitics would then affix to the highest functional syntactic head (cf. Wackernagel 1892). Such arguments contend that syntactic features of the same domain, namely C, can similarly lead to cliticization onto C by syntactic processes occurring prior to the realization of overt morphology, or of the phonological form.

Many scholars note the presence of verb-fronting, a forerunner of obligatory V2 verb raising, as being present in earliest Germanic, though the phenomenon is limited to situations where a CP-operant activates a CP. Eythórsson (1996) argues that left-displacement of the finite verb from the VP to a higher functional head, either C or IP-internal, is present in earliest runic and Gothic, consistent with Axel (2007) and Kiparsky's (1995) claims (Eythórsson 1996: 109). This movement in Gothic of V to a higher functional head "takes place in *wh*-questions and with negatives, triggered by an operator in Spec-CP" (1996: 11), or more generally "In Gothic the verb seems to be systematically fronted in cases where one might hypothesize an operator element in Spec-CP" (1996: 110). Eythórsson also argues that, in early Northwest Germanic[16], a

[15] Rizzi's (1997) work on the CP – as well as the large body of subsequent related work – does not hold that there was a complete collapse of these multiple, inherited CP positions, but rather that they retained their specificity, while losing the ability to co-occur in most instances. This research has been spawned largely in explaining the grammaticality of apparent double-filled C positions, or applied to data from Italian. This does not refuteKiparsky's claims, so much as it adds to it: the collapse of the inherited Indo-European CP projections might not have been complete in all of the IE daughter language, or dialects thereof.

[16] Fitting with the absence of such clitic phenomena in Old English, Eythórsson proposes a particular time frame, "[V]erb movement triggered by topicalized complements is a Northwest Germanic phenomenon that started in the northern part of the Germanic linguistic area and did not reach West Germanic until after the separation of Old English" (1996: 133).

topicalized verbal complement or other lexical item can similarly act as a CP-operator, effectively activating the CP. This then facilitates the raising of V to C, and pronominal elements cliticize to the highest functional head, C. Raising of the finite verb in Gothic and Runic is thus not obligatory, but rather limited to certain pragmatic contexts, and those conditioned by CP-operators. The presence of a true complementizer base-generated at C will also activate the CP, and V subsequently is blocked from raising to C. In Gothic and Runic, though, pronominal elements will still raise to cliticize with the highest functional head, which is again C. This does not seem to depend on the element occupying C, but simply on the fact that C is the highest syntactic, (active) head.

As the number of potential landing sites becomes reduced with the collapse of the IE topic and focus positions, and as the CP becomes reanalyzed as an obligatory phrase – and not a conditioned one – the position of the subject relative to the finite verb becomes regular.

2.3.2. Increased periphrasis

In addition to developmental changes in the structure of the CP from Indo European through to the Germanic daughter languages, two changes came about with respect to the finite verb: first, the rise of periphrastic verbal forms; and second, the formerly variable syntactic position to which the finite verb could raise became fixed.

The increased frequency of periphrasis is observable in attested Germanic languages: Runic and Gothic have very few periphrastic constructions, while Old High German and the later dialects show a progressive increase. Salmons argues, "Germanic varieties show clear parallel developments, in the rise of V2 order or of new functional categories and increasing periphrasis

in all daughters compared to the proto-language" (2012: 17). Harbert further argues that, in the transition from Indo-European to Germanic (here: GMC) (2007: 272-273):

> GMC reduced the articulated aspect/tense system of IE ... to a simple tense system with a single binary opposition present/past ... . The loss of inflectional aspectual distinction has been partly compensated for in some of the GMC languages by the development of periphrastic constructions.

Harbert further adds with respect to innovative (or compensatory) periphrastic forms, that (2007: 292-293):

> None of these developments is traceable to the parent language, and they are absent or underdeveloped in the older languages... Thus the extensive use of auxiliary verbs plus nonfinite verb forms across GMC languages, rather than inflection, to express distinctions in tense and aspect (and, as we will see, voice and mood) is a late development.

Verb raising was possible in the first attestations of the Germanic languages, but the position to which a finite verb raises was not fixed until centuries later. Axel notes a number of pragmatic instances under which the verb is fronted in oldest Germanic, but locates obligatory verb raising in OHG, arguing (2007: 181):

> In OHG, we have evidence for generalized verb movement, even in the older texts. Crucially, the verb not only moves in the context of *wh*- phrases, negation etc., but in any kind of main clause. In Kiparsky's (1995) eyes, this shows that a C-projection is obligatory. I have come to the same conclusion and have argued that already in OHG, the verb has to move to C in clauses without complementizers.

In relation to the syntax of the left periphery, Harbert concurs (2007: 398):

> Declarative main clauses with verb-final order are also found in early medieval GMC: Runic GMC, GO, OE (particularly in second conjuncts of coordinate sentences (cf.

> Kiparsky 1995b[17]: 147f.)), OHG and Middle DU (Weerman 1989: 182ff.), but this order is in competition from the earliest times with subject-verb order, and has disappeared across the board by later medieval times.

Combined with the developments regularizing the structure of the CP, obligatory raising of the finite verb locates finite verbs marking for person and number (and also TAM) within the same CP domain as CP operants for wh-elements and complementizers, which in the modern varieties exhibit C-agr.

2.3.3. Verb Raising in Germanic before V2

In addition to the rise of periphrasis, we must also consider the syntactic node to which the finite verb obligatorily raises, whether the verb raises to C, the highest phrase; or to a medial phrase, T (or I, an interchangeable term used in earlier literature). There are instances from OHG where Axel shows that V-to-I (or V-to-T) movement occurs even in subordinate clauses, such that verbs may raise above the subject even in the presence of a true complementizer (Axel 2007: 79-80):

> [I]n dependent clauses the finite verb appears in non-final position more often than in Standard present-day German. Second, in independent clauses a fair number of verb-third effects are attested. This latter phenomenon is very relevant in this context as it has been argued for Old and Middle English that the finite verb is found in a functional head below C (e.g. in I)...

The following example given by Axel from the Isidor translation from the 8th or 9th century illustrates the verb in third position in the presence of a true complementizer, *dhazs* ('that') (Axel 2007: 81):

[17] This work is incorrectly cited in Harbert (2007) and appears as Kiparsky (1996) in the references in this dissertation.

2.8. Hear	ist	araughit	dhazs	iesus	ist	druhtin
Here	is	seen	that	Jesus	is	Lord

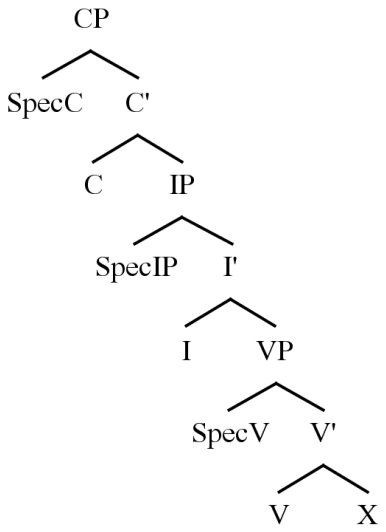
"Here is seen that Jesus is Lord" (I Fide 6, Sentence 2)

The Idisor translation does raise some questions as how representative it is of actual, contemporary Old High German, as it may have been highly influenced by the Latin original. It may also be the case that this is an infrequent word order, with the verb appearing in main clause position for emphasis. Regardless, it must be assumed that textual evidence is at least grammatical – even if it exhibits less common structures and word order. This example therefore shows that, because the finite verb raises to a medial position in the presence of a complementizer *dhasz* "that", V2 is not as solidly engrained in OHG as it is in the modern language. Variation of word order is quite common in Isidor, as Robinson (1994) shows 40 instances in which the position of the verb appears in a position not consistent with V2 that is not reflective of the position of the verb in Latin. This variation illustrates the development of multiple verb raising patterns concurrent with the increase of periphrastic verb constructions. The language of Isidor, as well as that of other texts of the OHG period, employed both I and C above V as possible final landing sites for the inflected verb. In the above example, the true complementizer *dhazs* "that" occupies C. Were the language of this text subject to the V2 constraint, the presence of the true complementizer would have blocked verb raising to C, and thus resulted in a verb-final structure. However, the verb is nevertheless seen to raise above the noun *druhtin* in the copula construction, to a second phrase below CP, to I. The location of the IP, and its status as a full phrase, is affirmed by the raising of *iesus*, which occupies the specifier

position of the IP. In Axel's treatment of OHG, this variation in verb-raising landing sites is seen as an intermediate stage before obligatory V2, when variation is eliminated.[18]

Axel also entertains the notion of a V-to-C and V-to-I asymmetry, citing also Tomaselli (1995), which both holds that the finite verb targets a medial functional projection above V but below C (Axel 2007: 97-98). This effectively allows for topic positions at syntactically higher positions than the landing site for the finite verb, resulting in V3 phenomena. A simplified graphic based on these arguments is given in Figure 2.9, assuming a left-headed IP following Kayne[19] (1994), which illustrates the available lexical projection above the landing site for the finite verb at I.

Figure 2.9.



Additionally, this assessment does not assume that verb raising will be blocked in the presence of a true complementizer at C. This results in multiple possible positions of Vfin in addition to V2, such as V3.

[18] Clausal asymmetry and word order change will be discussed in chapter 4.

[19] Figure 2.9 reflects Axel's adoption of Kayne's (1994) framework, while this dissertation instead follows other work specific to German, including studies in child language acquisition, which support a right-headed TP/IP.

Weerman (1989), in his treatment of the history of English, argues that V2 is a relatively late, language-specific development, noting a similar discrepancy between V-to-C and V-to-I (or V-to-T) raising, where English developed a V3 syntax. In his assessment, a 'finite-index' must be present in order for a verb to raise to C. This 'index' is a +[tense] feature inherent to particular lexical items, and need not be overt. The finite-index allows a lexical item – in this instance the verb – to raise to C. If the verb lacks the finite-index, or if there is a blocking element such as negation, then the verb will only raise to I (Weerman 1989: 44, 229-230). If one believes that V2 was present in Old English, then this is one argument for the process of unraveling of V2 in that dialect, through the introduction of increased variation in the input during child language acquisition, or through the loss of Weerman's finite-index. Since Weerman argues that V2 was a later development, then it is simply an example of the development of an alternate verb-raising strategy parallel to – but unlike – the continental West Germanic varieties, where the variation of verb-raising strategies did not regularize into a single verb-raising strategy. This dissertation instead follows Stockwell (1977), that Old English had V2 and lost it; the loss of V2 present in favor of SVO word orders is typologically common, and arises through reanalysis of pragmatic topicalizations. Westergaard (2009) similarly argues that V2 was present – though variable – in many varieties and historical stages of English, and that the loss of V2 was due to a number of historical factors and 'cues' that lead children to default to a non-V2 grammar in most cases.

Prior to an obligatory V2, verbs could attach to a fully functional, adjacent head in verb-subject (and later complementizer-subject) syntactic domains. Post-finite syntactic domains were thus possible before an obligatory V2 constraint and CP structure, though incidents of verb-subject and C-subject word orders certainly increased with the rise of obligatory CP in all clausal types, and after obligatory verb raising in the form of the V2 constraint was present.

2.3.4. The development of true complementizers

Intuitive though it may be to mention that the development of complementizers is a pre-requisite for complementizer agreement, it is certainly worth discussing the origin and syntax of complementizers explicitly.

Historically speaking, complementizers were not inherited from Indo-European, but were rather an innovation in Common Germanic (Kiparsky 1995, Harbert 2007). Originally derived from a demonstrative IE > Germanic **tod*, "that" and employing subordination to mark syntactic dependency, complementizers are attested from the earliest records of East Germanic (Gothic), North Germanic, and West Germanic (Old High German). The earliest attested Germanic language – excluding the scattered and small corpus of runic inscriptions – is Gothic, attested primarily in Bishop Wulfila's third-century bible translation, which exists primarily in the 188-leaf sixth-century *Codex Argenteus*, though there are roughly a dozen additional texts of shorter length. In these texts, complementizers take the form of the relativizing particle *ei*, which may appear as a stand-alone element, or as a clitic on inflected forms of *þat* "that". Harbert (1982, 1992, 2007) accounts for the relative distribution of *ei* arguing that (2007: 416)

> GO[thic] *ei* and *thatei* are largely complementarily distributed, the former occurring in subjunctive counterfactual clauses after verbs of wishing and command, for example, while the latter occurs in the main in indicative clauses after verbs of thinking and saying, for example. No other GMC [Germanic] language exhibits such a distinction in complementizers.

North Germanic and West Germanic have similar attestations of complementizers, derived from the neuter demonstrative, which is *að, at* or *att* in North Germanic varieties, but *that, daβ* or *dat* in West Germanic.

In syntactic terms, a true complementizer is one which is base-generated as the head of the CP. As coordinated structures became reanalyzed as subordinate with the reanalysis of the pronoun/demonstrative as a grammatical complementizer, the CP became an obligatory clausal structure. While the infrequent presence CP-operants at earlier stages of the language allowed for cliticization of pronominal enclitics onto the highest syntactic node at C (cf. §2.3.3), the presence of the CP due to generation of complementizers not only solidified the CP as a required phrase in subordinate clauses, but also increased the frequency and regularity with which enclitic elements could raise to the highest syntactic node.

2.4. The lack of C-agr in North Germanic

It is sufficient – and in fact the goal of this dissertation – to provide an account of the rise and the development of C-agr in varieties of West Germanic. However, it is also worth discussing why C-agr did not arise in varieties of North Germanic, especially given that North Germanic and West Germanic have a common heritage, share a number of historical and structural similarities, and remained in contact even after historically diverging. But while some elements are shared between the two language groupings, those prerequisite to the development of C-agr in North Germanic were not present. Thus, while Faarlund (2004: 35) does provide evidence of cliticization of first- and second-person in Old Norse, Bieberauer & Roberts (2008: 105) maintain that the "Scandinavian languages appear to have lacked subject-clitic pronouns throughout their history; subject clitics are absent in Modern North Germanic, including Iceland". It would seem, then, that despite whatever attestation of subject clitics in Old Norse, the apparent subsequent loss of subject clitics correlates with the lack of C-agr in North Germanic; the process of reanalysis of subject clitics in C-agr contexts observed in West

Germanic did not similarly occur in North Germanic.[20] In the following sections, I unpack some of the developments characteristic of West Germanic varieties exhibiting C-agr, that were either not present – or subsequently undone – in North Germanic: I provide arguments in §2.4.1 that comparatively variable word order in North Germanic reduced the frequency of subject-verb adjacency. The reduced number of such syntactic environments also reduces the likelihood that pronouns may be incorrectly parsed or reanalyzed as affixes (cf. §1.2), even though such subject clitics may have been historically present at one time in North Germanic (Faarlund 2004). In §2.4.2 I provide arguments that the innovation of vowel quality distinctions characteristic of North Germanic disrupted the inherited Germanic stress-based prosody in which pronouns are generally unstressed. Pronouns in North Germanic are therefore less likely to reduce phonetically, and therefore less likely to be reanalyzed in North Germanic than in West Germanic.

I therefore account for the lack of C-agr in North Germanic based on the absence of two key developments – the development of strict(er) V2 and the phonetic reduction of unstressed subject pronouns. This short account, however, does not preclude the possible influence of other independent factors, or other differences between North and West Germanic.

2.4.1. Verbal position

One difference between North and West Germanic varieties is the position of the finite verb. Whereas West Germanic varieties of German, Dutch and West Frisian are basically V2 with a few specific types of exceptional clauses, word order in North Germanic is comparatively more variable. The resultant verb-subject inversion and complementizer-subject word order in the

[20] One interesting parallel in the history of North Germanic is the development of the medial passive or reflexive *-sk*, arguably derived from the reanalysis of a pronominal reflexive as passive verbal inflection (Enger 2013).

stricter West Germanic V2 languages provides not only a parallel phonetic environment for encliticization between main and subordinate clauses (§2, §3), but also provides an analogical parallel between the syntactic node C between main and subordinate clauses (§4). The higher degree of variation in word order in North Germanic varieties may reduce the number of contexts in which enclitic pronouns appear, reducing the amount of input and thus the likelihood of reanalysis. Such variation in word order may additionally result in a clearer asymmetry between main and subordinate clauses, or at least a relative lack in saliency of the position of the syntactic node C in both main and subordinate clauses, relative to West Germanic varieties.

The position of the finite verb in Common Germanic was most likely verb-final, inherited from Indo-European, with notable exceptions where the verb was fronted for stylistic or pragmatic reasons. Examples of verb-final constructions include the Einang Stone and Golden Horn of Gallehus, provided below as examples 2.10. and 2.11.

2.10. *(Ek go)đigastiR runo fahido*

(I) Gothigastir runes painted/wrote

“I Gothigastir painted/wrote these runes”

(Einang Stone, 4th century)

2.11. *Ekhlewagastiz:holtijaz:horna:tawido*

I-Hlewagastiz-Holtijaz horn made

“I, Hlewagastiz-Holtijaz made this horn”

(Golden Horn of Gallehus, 5th century)

However, Eythórsson (2012) provides a number of examples in Runic and in Old Icelandic in which the verb does not appear in final position, but may appear in the first or second position of a clause. The variation exhibited in Runic was also characteristic of later varieties of all daughters of the Germanic languages. Specifically in West Germanic, texts like the Isidor show examples of verb-initial, verb-second, verb-third and verb-final constructions (Robinson 1994). This variation of verbal positions reduced greatly to a largely-fixed preference for verb-second constructions in the late OHG period (Kiparsky 1995, Axel 2007). It is only after this period of the solidification of V2, into the 13th century, that C-agr is attested in varieties of Middle and Low Franconian (Goeman 1997) and only sporadically and later in German (Rob Howell, p.c.). Modern varieties of German still show a degree of variation in the position of the finite verb, where yes/no questions, imperatives and conditional clauses show verb-first word order; however, with very few exceptions in non-standard varieties, verbal position in subordinate clauses is verb-final. Modern Swedish, on the other hand, has not only the same verb-initial constructions for conditional and imperatives, but also allows for verb-third constructions "in subordinate clauses with a sentence adverbial. … Occasionally the finite verb is found in fourth position or even further to the right" (Platzack 1986: 28-29). Whether the comparatively higher variation in position of the finite verb in North Germanic is responsible for the lack of C-agr in those varieties, or whether another syntactic structure is responsible for both the variation in word order and the lack of C-agr is not clear. What is clear is that the same phonetic-syntactic environments that frequently occur in varieties of West Germanic exhibiting C-agr and are argued in this account to contribute to the historical development of C-agr, are not strictly present with the same regularity in North Germanic.

2.4.2. Prosody versus Quality

As is argued in chapter §2.2, a key component to the reanalysis of subject pronouns is their phonetic reduction in prosodically unstressed positions. Occurring regularly in the same syntactic positions, subject pronouns are regularly unstressed in the same environments and therefore having less phonetic material are more likely to be reanalyzed as affixes.

North Germanic varieties possess a different sort of prosody than do their West Germanic cousins. Whereas subject pronouns in West Germanic varieties like German and Dutch are a part of a systematically unstressed grammatical category that regularly appears in a prosodically-unstressed clausal position, word stress in North Germanic is influenced by a number of other factors. For one, lexical stress patterns are different in North Germanic – and even influence the prosody of the sentence, contra varieties of German and Dutch. Icelandic and Faroese have "remained true to the GMC [Germanic] preference for initial stress, and these languages have apparently even strengthened it, since prefixes are generally stressed in them" (Harbert 2007: 81). Mainland Scandinavian languages, however, have evolved from the word-initial stress of Old Norse to develop a lexeme-based pattern of prosody based on vowel quantity or even tonality (Gårding 1977, Bruce & Gårding 1978, Kristofferson 2011), rather than the Continental West Germanic pattern which largely preserves the inherited word-initial stress. Further evidence suggests that this shift to vowel quantity in Norwegian and Swedish affected not only vowels, but also affected the duration of consonants (Page 2001). West Germanic, however, did not undergo the same shifts in phonological weight, stress and tonality, and therefore remains subject to the phonological reduction of lexemes caused by sentence-level prosody (Hanna 2009). This therefore reduces the frequency with which subject pronouns will appear in an unstressed position in North Germanic relative to West Germanic, and therefore reduces the possibility that

these North Germanic subject pronouns may be ambiguously interpreted and reanalyzed as affixes. There is certainly some variation, especially in the incorporation of foreign loan words, but the comparative lack of prosodic reduction of subject pronouns in North Germanic relative to West Germanic varieties eliminates one contributing factor to the reanalysis of subject pronouns as affixes, as exhibited in C-agr varieties.

2.5. Summary of Historical Development, Theory and Background Literature on Cycles

The phonology-first account of C-agr as being derived from a reanalysis of pronominal subject clitics post-C is based on a recent body of literature on related topics, from innovative inflectional morphemes like verbal *-st* or C-agr *-ts*, respectively for Standard German and Bavarian; or innovative pronouns like first person plural *ma* in varieties of Dutch (De Vogelaer 2010, also Fertig 2000: 47 for a similar phenomenon in varieties of German). The application of this sort of reanalysis model for C-agr has been proposed by Fuß (2004, 2005), but only for Bavarian, and only in a very restricted historic and particular syntactic manner. Such a model of reanalysis of subject clitics as inflection certainly is supported by a body of cross-linguistic evidence, from a number of similar phenomena in the same syntactic domain. Furthermore, analysis of this process draws on multiple subfields of linguistics to explain a historical development. And lastly, evidence is provided – especially by De Vogelaer (2010) and Somers Wicka (2011) – for the analogical spread of innovative morphemes beyond the conditioning environment, which provides a model for how analogical change spreads. There are, however, elements lacking from such an analysis: first, analogical reanalysis and extension are unpredictable. Yet despite data that show regular patterns of grammaticalization that similarly repeat in multiple varieties of Dutch and German, there is no unified syntactic model to explain

why so many parallel developments occur, and why they are most often restricted to only parts of the paradigm, e.g. most commonly second person singular. Second, formal syntactic explanation of the reanalysis from clitic to affix is under-developed. Somers Wicka applies Zwicky (1977) and Zwicky & Pullum's (1983) diagnostics to differentiate one from the other, but positions such reanalysis as a binary clitic/affix distinction without accounting for the process or stages of reanalysis.

A comprehensive account of C-agr must take into account both the phonology-first account, as well as the grammaticalization account (which has a large functionalist component). Based on previous accounts of C-agr and related phenomena, I lay out my own model of the development and progression of C-agr. It is a three-phase subject agreement cycle following van Gelderen (2011), with phase II split into early and late phases IIa and IIb (Breitbarth 2009, Willis 2010). The cycle is possibly initiated by both language-internal principles as well as by the reanalysis of reduced subject clitics post-C, with either process resulting in u-Phi features being present on the syntactic node, C. Reanalysis from clitic to affix is consistent with van Gelderen's (2011) syntactic account, with independent confirmation from diagnostics gleaned from Zwicky & Pullum's (1983) descriptive morphological account, and de Haan's (2010) phonological diagnostic. Introduction of the innovative, reinforcing element in my framework is consistent with van Gelderen's (2007, 2011) account, with supplementary arguments for the 'weakening' of the innovative element being drawn from van Gelderen's (2007) 'Head Preference Principle' (or similar principle of economy), as well as from morphological and syntactic arguments in instances of 'clitic doubling' from Castagna (2005) for Cimbrian, Haegeman (1992) for West Flemish, and Fuß (2004, 2005) for Bavarian.

2.6. The current framework

My analysis of C-agr begins with van Gelderen's (2011) subject agreement cycle, mapped onto a four-phase cycle following Breitbarth (2009) and Willis (2010). Illustrated in the table below, the reinforcing element follows the same process of grammaticalization as the original subject pronoun, albeit one phase behind it. As the process of grammaticalization of the original subject pronoun progresses, it becomes stripped of its i-Phi features and becomes more and more of a functional part of speech. The innovative marker is first introduced as an emphatic marker in phase IIa, to compensate for the loss of i-Phi features. The introduction of an emphatic element is consistent with both van Gelderen (2007, 2011) as well as Breitbarth (2009) and Willis (2010). Also consistent with Breitbarth's and Willis' accounts is the division of Jespersen's (1917) phase II into sub-phases IIa and IIb, to account for the differences in feature-marking present on the co-occurring elements. The marking of i-Phi features is similar to the marking of sentential negation in Willis (2010), where the innovative marker will co-occur with the original marker only until it has been reanalyzed as possessing all the necessary syntactic features (here: i-Phi) to supplant it. Thus, as the original marker is reanalyzed as an affix lacking i-Phi features, the role of marking phi-features is transferred to the innovative marker (Figure 2.10).

Figure 2.10.

	Original Subject Pronoun			**Innovative (Reinforcing) Element**		
	syntactic node	**part of speech**	**syntactic features**	**syntactic node**	**part of speech**	**syntactic features**
Phase I	Specifier	full pronoun	[i-Phi]	Ø	Ø	Ø
Phase IIa	Head	head pronoun	[u-1/2][i-3][u-#]	adjunct / specifier[21]	emphatic	[semantic]
Phase IIb	affix	agreement	u-Phi	specifier	full pronoun	[i-Phi]
Phase III	affix	agreement	u-Phi	Head	head pronoun	[u-1/2][i-3][u-#]

As regards phase II, it is lastly important to note that the reinforcing element is optional in phase IIa, but obligatory in phase IIb. This is consistent with the transfer of i-Phi features: when i-Phi features are marked on the original marker in phase IIa, the innovative marker is optional; but when i-Phi features have been transferred to the innovative marker, the innovative marker is obligatory. Phase III of the cycle is attested – I will argue – only in a portion of the Cimbrian varieties, in which 'clitic tripling' and full NPs are possible in conjunction with C-agr. Such triple marking and presence of full NPs – including proper names – involves a third, phrasal element that must occupy a specifier position and not a head, and that possesses i-Phi features. This is here considered phase III, and not merely a phase I', because 1) there is no attestation of

[21] The general process laid out by van Gelderen (2011) involves introduction of reinforcing elements as adjuncts, though the definiteness cycle (van Gelderen, 2007: 288) shows the introduction of innovative, deictic adverbs in the specifier position of the DP. I follow the 2007 model, both because the definiteness cycle is more specific, and because there is no independent argument for positing an adjunct phrase specific to the C-agr cycle.

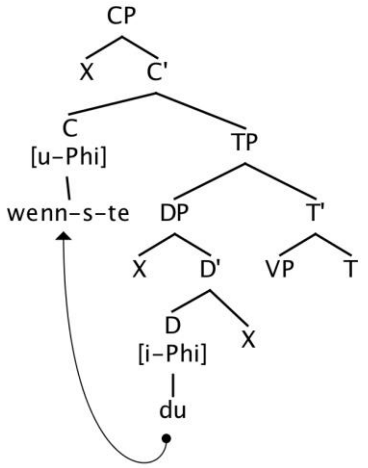
further grammaticalization of the original pronoun beyond affix; and 2) attestation of C-agr begins with the second person singular, spreading only later to other parts of the paradigm. It does not seem to me to be a complete cycle – or a repeating cycle – if the reanalysis of syntactic features is not complete across the entire paradigm.

I now discuss each individual phase in greater detail.

2.6.1 Phase I

C-agr is initiated by either the language-internal grammaticalization of subject pronouns as affixes (van Gelderen 2011), or the phonology-first reanalysis of pronominal subject clitics post-C as affixes (cf. Fuß 2004, De Vogelaer 2010, Somers Wicka 2011). In van Gelderen's account, the head of the phrase containing the pronoun raises through a 'late merge' principle, raising to a topic position above the XP containing the subject. I adopt this basic model here, but adapt it to fit C-agr phenomena not discussed in van Gelderen (2007, 2011). A hybrid of the subject agreement and definiteness/demonstrative cycles, I expand the typical subject position of spec,TP into a full DP phrase, in order to show the full progression of reanalysis during each phase of the complementizer agreement cycle. Consistent with van Gelderen's reanalysis of pronoun as affix, the pronoun raises through late merge to C, which is the logical 'topic' position above the specifier position within the subject DP (Figure 2.11 below). The result, as attested in non-standard varieties of German, is an enclitic pronoun "te", with a hiatus-s bridging points of articulation between the /n/ of the complementizer and the /d/ or /t/ of the enclitic pronoun.

Figure 2.11.



Following van Gelderen (2007: 284), this occurs by way of her Late Merge Principle (LMP), where Merge occurs economically after Move. Since van Gelderen (2007) follows Chomsky (2005) in giving preference to Merge, Copy and Delete in the derivation as opposed to marking trace effects, it is not clear whether the application of LMP in phase I of the subject agreement cycle is to be treated as an instance of pro-drop. I therefore follow a conservative, diachronic definition of LMP as "a motivating force of linguistic change, accounting for the change from specifier to higher specifier and head to higher head" (van Gelderen 2007: 286).

Specific to van Gelderen's language-internal motivation for the subject agreement cycle, phase I of the cycle would be a pre-C-agr variety, as in Standard German, with C-agr being first attested in phase IIa of the cycle, when specifically second person singular pronouns with u-Phi features affix to the element in C, necessitating its reinforcement through an emphatic, innovative marker.

In contrast, the phonology-first account of C-agr can result in C-agr in phase I of the cycle, provided u-Phi features are present on C without the reanalysis of subject pronouns. Such

is the case in Wisconsin Heritage German, where phonetically-derived hiatus effects are reanalyzed as C-agr, but subject pronouns maintain their clitic status (example 2.12, §3.1).

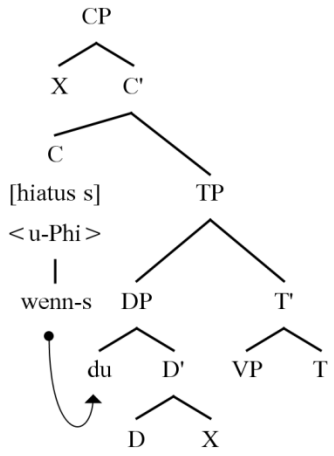
2.12. *wenns* *du*

if/when-2SG you

"if/when you"

The tree diagram for such a structure is provided below, in Figure 2.12.

Figure 2.12.



As illustrated in the tree diagram, reanalysis of the hiatus effect on the complementizer as an affix requires feature checking of its u-Phi features against the i-Phi features in the subject position, D (or possibly also spec,DP). The result is a spellout of C-agr inflection *-s* on the complementizer, *wenn* (English "if").

2.6.2. Phase IIa

Phase IIa is the first phase of the subject agreement cycle specific to C-agr for which the subject pronoun has been reanalyzed as an affix. Argued to occur only in first and second person contexts by van Gelderen, and confirmed by all attestations of West Germanic varieties exhibiting C-agr, this phase involves also the optional introduction of an emphatic demonstrative in the specifier position of the DP occupying the subject position, Spec,TP (cf. van Gelderen 2007: 288). This would be the earliest phase of the cycle in which 'clitic doubling' would occur, providing evidence in clearest terms of the beginning of the C-agr cycle. In instances where the optional reinforcing element does no co-occur with the original pronoun (which has been reanalyzed as an affix), phase IIa provides the *only* phase of the cycle during which pro-drop is attested (§4.3). In a pre-2002 Chomskian framework, the u-Phi features on C are checked against the syntactic subject node bearing i-Phi features. In a post-2002 Minimalist framework, u-Phi features on C are similarly checked against the i-Phi features of the subject position, albeit prior to Late Merge, following van Gelderen's LMP (2007, 2011).

2.6.3. Phase IIb

In phase IIb, the original subject pronoun is full reanalyzed as an affix on C, having completely lost its i-Phi features. At this point, reanalysis may also begin to spread beyond second person singular. The loss of i-Phi features on the original pronoun is compensated for by the weakening of the innovative marker from a reinforcing, emphatic demonstrative to a full pronoun with i-Phi features. The fact that only the innovative pronoun has i-Phi features makes it obligatory in phase IIb. This development also ends the period of pro-drop, in phase IIa.

2.6.4. Phase III

In phase III, the original subject pronoun is still an affix on C, but the innovative marker continues the process of grammaticalization, becoming reanalyzed as a head through van Gelderen's Head Preference Principle (HPP)[22] (2007, 2011). Additionally, because the specifier position within the subject XP is now open, even the innovative marker may lose i-Phi features, and in fact some varieties of Cimbrian will add a second reinforcing element in the specifier position for 'clitic tripling'. This, as well as the co-occurrence of both original and reinforcing elements with a full subject NP (e.g. proper nouns) will follow in the discussion on Cimbrian (§3.3). Aside from select dialects of Cimbrian, phase III is unattested, and further discussion of this final phase is therefore limited.

We now transition to chapter 3, in which the theoretical approach is applied to attestations of C-agr in both continental and heritage varieties of West Germanic.

[22] This assessment does not preclude application of a similar principle of economy, e.g. bare phrase structure: if the reinforcing element does not co-occur with another element in the subject XP, then there is no independent reason to posit a specifier position instead of a head.

Chapter 3

3.0. Phases of the C-agr Cycle

This chapter applies the Cycles framework to C-agr outlined in chapter 2, with detailed description of each phase supported by empirical evidence. Data drawn from both original fieldwork conducted in Wisconsin and Bavaria, Germany as well as previous studies provide empirical evidence of the synchronic structures and diachronic progression of C-agr as a cycle of renewal.

3.1. Phase I of the C-agr Cycle: Evidence from heritage varieties of Wisconsin-German

This section examines the status of inflectional affixes in Complementizer Agreement (C-agr) contexts in heritage varieties of German spoken in Wisconsin, here referred to as Wisconsin Heritage German (WHG). Interviews were conducted with four fluent speakers of WHG in 2011 and 2012, and with 11 fluent speakers of Bavarian (mostly North Bavarian[23]) and 7 of East Franconian in May and June 2012. Morphological distribution of C-agr phenomena shows that speakers of all three varieties inflect elements in the CP domain for second person singular, regardless of phonetic environment. Phonetic analysis of inflectional affixes after de Haan (2010), however, reveals a discrepancy in the historical source of C-agr inflection. Evidence of progressive voicing assimilation in Bavarian and East Franconian shows that subject pronominal clitics are part of the phonological word, and thus are inflectional affixes. This is consistent with van Gelderen's model. WHG, in contrast, shows maintenance of clitic status among even pronominal subject clitics post-C, with C-agr derived through the reanalysis of phonetic hiatus

[23] Shirmunski marks the southern-most border of the North Bavarian dialect region to be the Danube, and counts Regensburg as North Bavarian (1962: 30).

effects. This is a striking discrepancy between the continental and heritage varieties. Within a Linguistic Cycles framework, this suggests an early stage of the development of C-agr in WHG, which in continental West Germanic varieties is comparatively progressed. Furthermore, these data provide evidence that the Linguistic Cycle may be initiated through a phonology-first reanalysis of hiatus effects, independent of the grammaticalization or reanalysis of subject pronouns.

I will begin with an overview of the consultants and elicitation material. Primary data will be presented on two subjects: first, the morphological distribution of C-agr; and second, the phonetic analysis of inflectional affixes in the data set. We will then conclude with a summary of this section's findings, and a brief discussion on the ways in which the heritage variety differs from the continental varieties, and the relevant theoretical implications.

3.1.1. Interviews and elicitation

Data from Wisconsin Heritage German (WHG) was gathered in 2011 and 2012 during interviews with 41 proficient speakers for the "German in Wisconsin" project. Of these 41 consultants, four consistently licensed C-agr and related phenomena in free conversation and English-to-German translation tasks, and will be considered here. These four consultants range from third to fifth generation German-American, and are all men in their 70's and 80's.[24] They have all spent the majority of their lives in eastern Wisconsin between Lake Winnebago and Lake Michigan, and have had very limited – if any – formal instruction in Standard German. None of the WHG consultants had ever met one another, which hints at the possibility that C-agr in Wisconsin may at one time have been a more common characteristic of the linguistic

[24] The data set of WHG speakers is only coincidentally male. Given such a small sub-set of speakers, no inferences can be made about gender association or sociolinguistic factors; subjects were selected based solely on the presence of C-agr in consultants' grammar.

community than is currently attested; attested C-agr in these speakers is likely reflective of a larger pattern in the community, rather than simply being restricted to a smaller, social circle. It is worth noting that many of the WHG consultants are descended from emigrants who came from regions of Europe where C-agr is common (e.g. Rhenish/Ripuarian, Rhine-Hessian, Bavarian). However, there is also considerable dialect mixing among Wisconsin varieties (cf. Nützel & Salmons 2011); one of the four speakers in this data set is descended from two great-grandparents, born in 1832 and 1837 in the Kingdom of Prussia. Emigrating before unification, this speakers' immediate family would have spoken a variety in which C-agr is not attested. C-agr in this consultant's speech must have been acquired due to dialect mixing in the community. We must therefore consider that the presence of C-agr in this diasporic community is not singularly resultant from an uninterrupted transmission from a European variety. Additionally, one fifth-generation speaker produced C-agr with no discernible link to a particular European variety in terms of the features of his speech.

Wisconsin interview data will be compared to continental Bavarian and East Franconian data. Data from Bavarian and East Franconian was gathered during interviews conducted in May and June 2012, in Regensburg, Hof am Regen, Bayreuth and Harsdorf, Bavaria, Germany. Of 20 interviews conducted, 18 were useable including 11 Bavarian speakers and 7 speakers of East Franconian. Data was gathered from grammaticality judgments, the reading of a picture book "The Fortune Teller / Die Wahrsagerin", and a directed task entitled "Ich weiß nicht / I don't know" meant to elicit subordinate clause structures. Grammaticality judgments were evaluated by consultants on a scale of 1 to 5, with 1 meaning "totally normal for the dialect; I hear/say this regularly", and 5 meaning "I would never say that and have not heard it in my dialect". Digital recordings were made using Audacity and analyzed using Praat (Boersma & Weenik 2013).

Data was analyzed first in terms of morphological distribution, comparing production data from Wisconsin Heritage German data to grammaticality judgments from Bavarian and East Franconian. These elicitation materials from grammaticality judgments included examples used in previous dialect studies in nearby dialect regions (e.g. Bayer 1984), as well as to correlate with production data already gathered in interviews from Wisconsin. Acoustic analysis was also conducted on the recordings of four Wisconsin speakers and selected European speakers to measure voicing assimilation patterns, to discern reanalysis from clitic to affix. Lastly, evidence of a cycle of renewal was tested for, characterized by 'clitic doubling', where reinforcement of the original element by a demonstrative signals the end of phase I and the beginning of phase II of the cycle.

3.1.2. Morphological distribution

Morphological distribution of inflectional affixes in C-agr contexts appears in the same environments in WHG, and Bavarian and East Franconian. In addition to true complementizers such as temporal *wann* "when" or conditional *wenn/ob* "if, whether", C-agr was also licensed for wh-elements, as well as indirect objects and topicalized prepositional phrases in the CP domain.

First and foremost, we begin by showing that, while phonetic processes such as hiatus effects and pronominal cliticization played a role in the development of C-agr historically, inflection in C-agr in modern varieties considered here is restricted to a morphological and not phonetic environment. All four speakers of WHG restrict C-agr to 2nd person singular, regardless of phonetic environment. Speaker O uses the dialectal pronoun *dir* for second person plural characteristic of some Upper Saxon, Thuringian and Franconian varieties, but despite the identical phonetic environment between the coda [n] and initial [d] in examples 1a and 1b, the /s/

inflection is restricted to 2nd person singular, showing the /s/ is morphological and not phonetic material.

3.1a. *Wenns du in de Kaufhaus gehst...*

If-2SG you to the store go

"If you go to the store"

3.1b. *Wenn dir zwei Zeit habm...*

If you.PL two time have...

"If you two have time..."

This distribution is also attested in continental East Franconian: consultant AB speaks a continental variety of East Franconian that similarly inflects only for second person singular, and who also uses *dir* as a second person plural pronoun (cf. Weise 1907). In the identical vowel-dental phonetic environment, the locative wh- element in the CP domain inflects for second person singular, but not for second person plural.

3.2a. ... *wost wohnst*

... where-2SG live

"Where you live"

3.2b. ... *wo dir wohnt*

... where you.PL live

"Where you live"

Specifically, this shows that the inflection — /s/ or /st/ — is part of a morphological marking, and not conditioned by a phonetic environment. This holds true for both consultants, the third generation WHG speaker, as well as the European-born East Franconian speaker.

3.1.3. Phonetic analysis

Data from Wisconsin Heritage German provides evidence of C-agr as a phonology-first development, were inflection is derived through the reanalysis of hiatus effects between complementizers and pronominal subject clitics post-C. This is an addition to the eponymous framework of Jespersen (1917), whose Cycle of Renewal framework has been greatly refined by van Gelderen (2011), as a cyclical, unidirectional evolution of a part of speech, motivated by principles of feature economy (2011, p.c.). The basic cycle specific to C-agr, repeated from Figure 2.10, is provided here as Figure 3.1.

Figure 3.1.

	Original Subject Pronoun			**Innovative (Reinforcing) Element**		
	syntactic node	**part of speech**	**syntactic features**	**syntactic node**	**part of speech**	**syntactic features**
Phase I	Specifier	full pronoun	[i-Phi]	Ø	Ø	Ø
Phase IIa	Head	head pronoun	[u-1/2][i-3][u-#]	adjunct / specifier[25]	emphatic	[semantic]
Phase IIb	affix	agreement	u-Phi	specifier	full pronoun	[i-Phi]
Phase III	affix	agreement	u-Phi	Head	head pronoun	[u-1/2][i-3][u-#]

The Linguistic Cycle relevant to C-agr does not involve complementizers directly; it involves subject pronouns. Subject pronouns become reanalyzed as affixes either through language-internal processes, or they undergo natural phonetic reduction in prosodically unstressed positions (Hanna 2009), and may then be ambiguously interpreted as either subject clitics OR inflectional affixes by children (or adults) as they build a grammar (Lightfoot 1979, 1991; Lightfoot & Westergaard 2007). This initial section on phase I is primarily concerned with evidence of reanalysis following the 'weakening' of unstressed pronouns in the phonology-first account, during phase I. Particularly important for the discussion of cycles is that C-agr

[25] The general process laid out by van Gelderen (2011) involves introduction of reinforcing elements as adjuncts, though the definiteness cycle (van Gelderen, 2007: 288) shows the introduction of innovative, deictic adverbs in the specifier position of the DP. I follow the 2007 model, both because the definiteness cycle is more specific, and because there is no independent argument for positing an adjunct phrase.

inflection develops through the reanalysis of hiatus effects in WHG, and not from grammaticalization of pronominal subjects.

In de Haan's (2010) perception experiment dealing with West Frisian (a West Germanic variety closely related to English and Dutch that also has C-agr), speakers judged instances of progressive and regressive voicing assimilation in C-agr and subject-verb inversion contexts, and rated each as either grammatical or ungrammatical. Subjects in this study rated progressive assimilation grammatical, while rejecting instances of regressive assimilation as ungrammatical, as in the examples below, where example 3.3a and 3.4a show grammatical progressive assimilation, but 3.3b and 3.4b show ungrammatical regressive assimilation (de Haan 2010: 227).

3.3a. *miskien [moasto] Pyt helpe*

3.3b. **miskien [moazdo] Pyt helpe*

perhaps have you Pyt to help

"Perhaps you should help Pete"

3.4a. *[dasto] Pyt helpe moatst*

3.4b. **[dazdo] Pyt helpe moatst*

that you Pyt to help have

"That you should help Pete"

The author concluded that the original pronouns had been reanalyzed as affixes, arguing that (de Haan 2010: 227) …

> If syntactic incorporation gives rise to an adjunction structure which is interpreted in the phonological component as one phonological word, then the occurrence of progressive assimilation is explained, since progressive assimilation only applies within phonological words, and not over word boundaries. The unacceptability judgments [sic] with regressive assimilation ... demonstrate that syntactic incorporation is obligatory in the case of the order *V/C-do*.

Within a Lexicalist/Minimalist model, cliticization is a phonetic phenomenon at PF, whereas affixation is base-generated in the Lexicon and becomes overtly realized on C through a goal-probe relationship with T/TP (cf. Chomsky 2002, Carstens 2003, van Koppen 2005, van Koppen & Putnam 2009); phonetic realizations are determined by phonological features already present in the Lexicon. The voicing assimilation pattern therefore provides evidence of whether the given element is generated in the Lexicon (affix) or affected by the phonetic environment (clitic). Parsing of clitic from affix provides evidence of the underlying syntactic structure, and is possible through acoustic analysis. In more specific terms, we would expect progressive assimilation in instances of C-agr, where inflectional affixes are generated in the lexicon; cliticization, on the other hand, would be signaled by regressive assimilation. To this end, recordings from East Franconian and Bavarian interviews were analyzed for a progressive assimilation of the voiceless /s/ originally derived as a hiatus effect, through the following /d/ in *du* (‘you’) to /t/, as represented orthographically in the contrastive examples below (3.5a and 3.5b).

3.5a. *Wenn du kommst* (pre-C-agr variety)

if you come

“If you come”

3.5b. *Wennst kummst* (Bavarian; Bayer 1984: 233)

if-2SG PRO come

"If you come"

In terms of phonetic analysis, a devoiced /d/ to /t/ is signaled by a voice onset time (VOT) characteristic of a /t/ ranging from 25-100ms, with the majority of tokens closer to an average value of 75 ms, often co-occurring with aspiration (Avery & Idsardi 2001, Lisker & Abramson 1964: 401).

Evidence from de Haan (2010) from West Frisian, as well as orthographic representations of many continental varieties of German exhibiting C-agr (e.g. Bayer 1984), shows progressive assimilation in C-agr contexts. Additionally, phonetic analysis of East Franconian and Bavarian recorded in 2012 confirms the progressive assimilation represented orthographically in dialect literature, and predicted by de Haan (2010) for C-agr varieties. As shown in Table 3.1, all tokens for 2SG C-agr from both the East Franconian and Bavarian speaker fall within the 25-100ms VOT range expected for /t/. The average VOT values additionally fall within close proximity to the 75ms average, though some variation is to be expected between speakers, due to differences in rate of speech.

Table 3.1

Speaker	Location of Recording	Variety	# of Tokens	VOT Range	VOT Average
AB	Regensburg	East Franconian	5	46-62ms	53.4ms
HDS	Regensburg	Bavarian	6	34-93ms	69.7ms

These data show consistent devoicing of the /d/ in pronominal du to a /t/, resulting from progressive assimilation of the [voiceless] feature of the preceding hiatus *-s*. These phonological

effects are only possible within word boundaries, and following de Haan (2010), the presence of progressive assimilation signals a lexical rather than post-lexical process. Available acoustic data for East Franconian and Bavarian therefore provide evidence for reanalysis of subject pronouns as inflectional affixes in C-agr contexts. This will be used as the baseline against which to measure WHG .

Data from WHG, however, show no evidence of progressive assimilation from the /s/ to the /d/. None of the consultants aspirate in C-agr contexts, which would devoice the phoneme (cf. Avery & Idsardi 2001). As shown in Table 3.2, closure times for the dental in such C-Agr attestations average from 0-40 ms for all consultants, which is not only below the average closure time of 75ms for aspirating languages like German, but many tokens are also below the 20ms threshold of perception for such phonetic/phonological cues (Lisker & Abramson 1964).

Table 3.2. - Complementizer Agreement in WHG

Speaker	Location of Recording	# of Tokens	VOT Range	VOT Average
J	Sheboygan	3	15-27ms	19.7ms
O	New Holstein	2	17-40ms	28.5ms
R	Marytown	2	0-31ms	15.5ms
V	Elkhart Lake	2	0-13ms	6.5ms

In comparison of both the range and average of VOT values for WHG, East Franconian and Bavarian, it is apparent that the continental varieties exhibit progressive voicing assimilation signaling reanalysis of the subject pronoun as an affix, confirming de Haan's (2010) hypothesis. This data also suggests, contrastively, that pronominal clitics in these attestations of WHG have not been reanalyzed as affixes, but rather remain subject clitics.

3.1.4. Explaining the discrepancy: The syntax of phase I

While WHG, East Franconian and Bavarian all inflect elements in the CP domain for second person singular, continental varieties show a reanalysis of subject pronoun clitics, whereas WHG shows a maintenance of the clitic status of subject pronouns, with inflection being derived from the reanalysis of the /s/ originally derived as a phonetic, hiatus effect.

Because the morphological distribution is the same, we can assume that C-agr is licensed in both heritage and continental varieties by the same syntactic structure (synchronically), with the only difference being between the agreement morphemes (/s/ and /st/), and the fact that continental varieties may license pro-drop. Both structures are illustrated below in Figures 3.2 and 3.3 (cf. Chomsky 2002, Carstens 2003, van Koppen 2005; van Koppen & Putnam 2009).

Figure 3.2

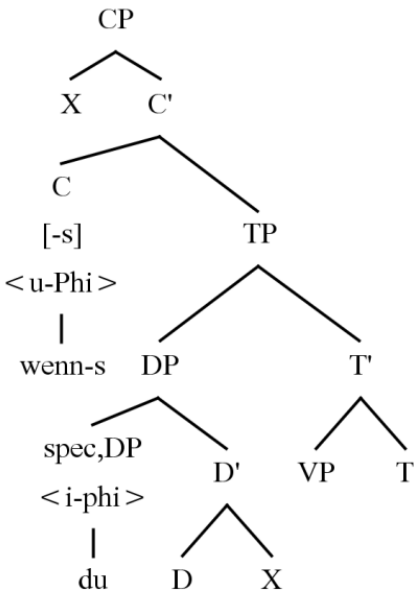
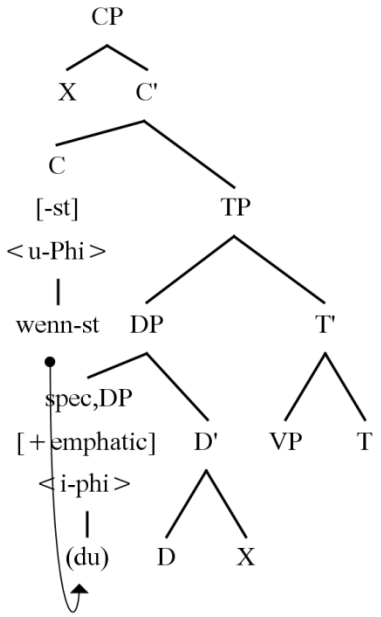


Figure 3.3. C-agr in East Franconian and Bavarian (Phase IIa)



There is, however, a substantial diachronic difference with respect to the stage of the Cycle of Renewal exhibited by heritage versus continental varieties. Continental East Franconian and Bavarian show a reanalysis of subject clitics as inflectional affixes, and even the reinforcing of the original subject pronoun by an innovative marker, through 'clitic doubling'. This locates both varieties firmly in stage II of the cycle of renewal, advancing towards stage III (cf. Figure 3.1). In contrast, WHG does not show a reanalysis of pronominal subject clitics in 2nd person singular, apparently not (yet) participating in a cycle.

The status of East Franconian and Bavarian C-agr clitics as inflection is confirmed by an additional diagnostic. Instances of so-called 'clitic doubling' in the morphological distribution, consistent with van Gelderen's (2011) and Jespersen's (1917) Cycles analysis, show the introduction of an innovative subject marker to strengthen – and eventually replace – the original pronoun that has been reanalyzed. (Castagna 2005: 106, my translation)

> ... [G]eht das Vorkommen von CD [(clitic doubling)] auf den Verlust von semantischem und phonologischem Gehalt bei den Klitika zurück. Dieser Schwund wird durch das gleichzeitige Auftreten von Klitika und pronominalen bzw. vollen nominalen Formen kompensiert.
>
> The occurrence of clitic doubling has to do with the loss of semantic and phonological content of the clitic. This atrophy is compensated for by the simultaneous appearance of clitics and pronominal vis-à-vis full nominal forms.

Clitic doubling is absent from all attestations of WHG, but this is not the case for East Franconian and Bavarian. Consultants provided neutral and CD examples rated CD sentences as grammatical, if emphatic. However, East Franconian speakers seem to have preferred the CD variant, while the opposite was the case for Bavarian speakers. If this trend were to hold across a larger data sample, it would suggest a slightly more advanced progression from phase IIa to phase IIb of the cycle in East Franconian than in Bavarian.

Table 1.3. Complementizer Agreement Grammaticality Judgments – Continental varieties

C-agr	East Franconian (n=7)	Bavarian (n=11)
Sag‘s mir, wennst noch Minga kummst (C-agr)	2.5	1.5
Sag‘s mir, wennst du noch Minga kummst (C-agr with CD)	2.17	2.27

The complete lack of clitic doubling in WHG, though, provides evidence that the subject agreement cycle specific to C-agr has not progressed beyond phase I.

3.2. Revisiting Phase II of Jespersen's Cycle

In this section, building on van Gelderen (2007, 2011), Breitbarth (2009) and Willis (2010), I examine phase II of the subject agreement cycle specific to C-agr. As noted in §2.6, phase II is characterized by the co-occurrence of the original subject pronoun (in the process of being reanalyzed as an affix), and the innovative, reinforcing demonstrative (in the process of being reanalyzed as a non-emphatic pronoun. As we will see in the following sections, an analysis of C-agreement data from dialects of West Germanic provides support to the argument for sub-phase IIa and IIb, as this data set provides more specific evidence pertaining to the reanalysis of both original and innovative elements, allowing for more subtle differentiation between sub-phases IIa and IIb.

3.2.1. C-agr and Phase II of the Linguistic Cycle

The C-agr cycle is triggered by one of two occurrences: 1) language-internal processes of grammaticalization of subject pronouns; or 2) the phonetic 'weakening' of the original subject pronoun in phase I, to which the grammar must resolve itself. Both facilitate the cycle of subject agreement specific to C-agr, involving the introduction of a reinforcing, initially-demonstrative pronoun in phase IIa of the cycle.

Reanalysis of the original subject pronoun follows a progression that also applies to the innovative marker in phase II. The weakening of the original subject pronoun, and subsequent reanalysis as an affix, follows a path of grammaticalization as outlined in §1.2. This cycle takes into account more subtle stages of reanalysis, particularly during the co-occurrence of original and innovative markers during phase II, and describes both the path taken by the weakening of the original pronoun, as well as that of the reinforcing element. In chapter 2 I presented my

argument that C-agreement undergoes a process of renewal, and laid out the specific stages of the process. The following sections introduce the diagnostics used to more closely identify the degree to which both the original and innovative and reinforcing elements have each been reanalyzed, followed by the analysis of data from modern dialects of West Germanic.

3.2.2. Original marker - diagnostics

The following section outlines the diagnostics that may be applied to discern the function of the original marker at any given phase of the cycle of reanalysis, and therefore sheds light on the progression of the cycle, in general.

Clitics have a low degree of selection ('promiscuity') whereas affixes are highly selective in terms of what they attach to. Following Zwicky & Pullum (1983: 3-4): "Clitics can exhibit a low degree of selection with respect to their hosts, while affixes exhibit a high degree of selection with respect to their stems ... arbitrary gaps in the set of combinations are more characteristic of affixed words than of clitic groups." By examining the morphological distribution of morphemes in C-agr contexts, these morphemes can be diagnosed as either affixes or clitics. A high degree of selectivity of C-agr in a given variety provide support that reanalysis from clitic to affix has taken place, whereas a low degree of selectivity would provide support that reanalysis has not taken place, and that (subject pronominal) clitic status is maintained.

Considered here are two separate issues viewed in light of historical developments. First, there is the issue of arbitrary gaps within a paradigm, resultant from the reanalysis of some subject clitics as affixes. These gaps within a paradigm do not restrict the 'stem' to which the affix may attach, since C-agr affixes may appear on any complementizer; this is thus not a direct application of Zwicky & Pullum's diagnostic. However, a broader interpretation of the notion of

arbitrary gaps may nevertheless be used to differentiate affixes in C-agr contexts from Zwicky & Pullum's view of clitics. Arbitrary gaps in the C-agr paradigm occur in varieties of German, as well as Dutch, with the restricted class of C-agr affixes differentiating itself from the pronominal subject paradigm. These C-agr affixes – often a subset of the paradigm – are restricted to affixation to the element in C (e.g. a complementizer), without restricting the propensity for promiscuous subject and even object cliticization. In fact, C-agr affixation is obligatory in some circumstances (Fuß 2004: 60-61), whereas the distinction between subject clitic and non-reduced subject pronoun is a matter of discourse or pragmatics, e.g. where the non-reduced pronoun provides an emphatic or contrastive reading (cf. examples 2.2 – 2.4). Varieties of Dutch, for example, may exhibit C-agr only for second person singular, but still maintain the dedicated set of phonetically-reduced subject clitics characteristic of Standard Dutch (cf. Haegeman 1992: 48, for subject cliticization in West Flemish). There is therefore a difference in the distribution of C-agr affixes as compared to pronominal subject clitics, such that C-agr affixes are restricted to certain syntactic domains licensed in the grammar, whereas subject clitics in modern West Germanic varieties follow the pattern predicted by Zwicky & Pullum (and may even co-occur with C-agr affixes).

The second issue to be considered in light of Zwicky & Pullum (1983) is that of apparent promiscuity of these same C-agr affixes in their propensity to affix not only to complementizers, but also to a number of other elements in the CP domain (Reis 1985, Kathol 2001a, cf. §3.2.8). While this low degree of selection would seem to contradict the affixal status of C-agr inflection in light of Zwicky & Pullum (1983), it is argued here that the apparent promiscuity is in fact syntactically licensed, and not a phonetic phenomenon at PF; innovative inflectional morphology developed first in restricted phonetic and syntactic environments, spreading only later to other

'stems'. For example, Bavarian 2SG *-st* as well as 2PL *-ts* developed from a reanalysis of a phonetic hiatus effect between a preceding consonant and the following pronoun (§2.2, Weise 1907, Fuß 2004: 60-63). Only after the development of these innovative inflectional affixes in a specific phonetic environment does the innovative inflection spread to other C-agr contexts, motivated not by a promiscuity of cliticization, but rather by the necessity to check uPhi features on C. The overt marking of C-agr on a variety of stems is therefore not a measure of promiscuity, but rather the result of syntactic licensing in a single syntactic domain.

Below is a table of dialects of West Germanic that exhibit C-agreement, categorized by the degree of selectivity within the paradigm. Citations included are not exhaustive for all varieties, but represent the variation possible in the marking of C-agr across the paradigm (see also Weiß (2005: 148-152)).

Table 3.2.

Morphological Distribution of C-Agreement	
2nd Person Singular	
Tegelen Dutch	van Koppen and Cremers 2008
West Frisian	de Haan 2010
2nd Person	
Bavarian	Bayer 1984
South Hollandic	Van Haeringen 1939
Groningen	Van Ginneken 1939
Luxemburgish	Bruch 1973
2nd Person and 1st Person Plural	
Lower Bavarian	Pfalz 1918, Bayer 1984
Mixed 2nd and 3rd Person	
Thuringian: Altenburg	Weise 1900
Mixed 1st, 2nd and 3rd Person	
East Franconian: Coburg	Rowley 1994
Erzgebirgisch	Weise 1907
Egerlandisch	Weise 1907
Full Paradigm	
Cimbrian	Schweizer 2008
West Flemish	Haegeman 1992

What we see is that various dialects of West Germanic show C-agreement only for a portion of the paradigm, including dialects of German, Dutch, West Frisian, and Luxemburgish. All dialects that exhibit C-agreement do so in 2nd person singular.[26] Examples are given from Bavarian and West Frisian.

Bavarian:

3.6. *ob-st noch Minga kumm-st*

whether-2SG to Munich come-2SG

"If you come to Munich"

(Fuß 2004: 60-61)

West Frisian:

3.7a. *dat-sto my helpe moatst*

3.7b. *dat-ste my helpe moatst*

3.7c. *dat-st my helpe moatst*

that-2SG me help must-2SG

"that you have to help me"

(de Haan 2010: 227)

[26] An argument can be made that the same reanalysis of post-C clitics took place in all of the dialects: all possessed the V2 constraint, giving rise to the syntactic domain, post-C; all dialects inherited an *–s* inflection for 2nd person singular; all dialects possessed a 2nd person singular pronoun with an initial deictic and alveolar or dental (e.g. *d, t* or þ).

Bavarian, South Hollandic, Groningen and Luxemburgish show C-agreement also in 2nd person plural.

Bavarian:

3.8. *ob-ts noch Minga kumm-ts*
whether-2PL to Munich come-2PL
"whether you come to Munich"
(Fuß 2004: 60-61)

Fuß attributes the second person plural inflection in Bavarian to the reanalysis of a cliticized, formerly dual pronoun in the post-C position (2004: 64) – a position also adopted here. Pfalz (1918) notes that this inflection is still largely confined to the conditioned environment, appearing only in post-C position. This assessment of the origin of the C-agreement inflection is consistent with my framework. Dialects of Lower Bavarian additionally show C-agreement in the first person plural, which developed similarly as a reanalysis of post-C clitics. This particular development in Lower Bavarian directly parallels De Vogelaer's (2010) data on Flemish, Brabantic and Zeelandic, in that both the phonetic and syntactic environments are the same.

Lower Bavarian:

3.9. *wem-ma aaf Minga fon*
when-1pl to Munich drive
"when we drive to Munich"
(Fuß 2011: 58)

These dialects exhibit arbitrary gaps within the C-agr paradigm, while patterns of pronominal cliticization remain comparatively robust for varieties of Dutch and German, occurring regularly in unstressed position across the paradigm (§2.2). This provides evidence that, at least in Bavarian, West Frisian, Luxemburgish and some varieties of Dutch, the C-agr paradigm differs from that of pronominal subject cliticization.

Cimbrian and West Flemish present an interesting problem to this first diagnostic, in that these varieties exhibit C-agr across the entire paradigm, which does not differentiate the C-agr paradigm from pronominal cliticization in other C-agr varieties. However, the historical development is quite the opposite, with a high degree of reanalysis relative to, for example, Bavarian or East Franconian, resulting in a similarly restricted set of inflectional affixes specific to C-agr. For example, in looking at the C-agr paradigm from West Flemish as compared to the subject pronoun paradigm, we see that the inflectional affixes are derived from the reanalysis of pronominal subject clitics, but also that the current pronominal paradigm differs from the C-agr paradigm, with the optional pronoun in parentheses, providing an emphatic reading in instances of clitic doubling (see 3.10. below; Haegeman 1992: 49).

3.10 *Kpeinzen dan-k (ik) morgen goan.*

I-think that-I (I) tomorrow go

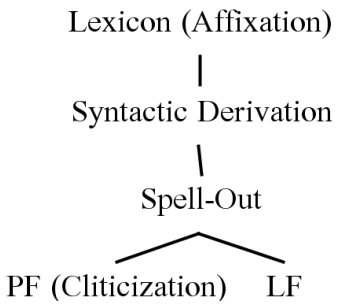
"I think that I'll go tomorrow"

Rather than treat the lack of arbitrary gaps in the C-agr paradigm as evidence of cliticization, however, this dissertation follows Haegeman's conclusion that West Flemish is an example of an

"extreme case" of C-agr, where "agreement applies to all subjects and all finite complementizers" (1992: 51). West Flemish – and also Cimbrian varieties – are treated here as simply exhibiting a higher degree of reanalysis of pronominal subject clitics as affixes. This analysis is supported by further diagnostics, which identify both dialects as having affixation and not merely subject cliticization.

Reanalysis occurring in the lexicon changes not only the features on a given lexeme, but also the stage in the syntactic derivation at which element – affix or clitic – is generated. Affixation is a syntactic process occurring before spell-out; inflected forms come pre-inflected out of the Lexicon. Cliticization, on the other hand, is often treated as a post-lexical even post-syntactic process related to surface adjacency.

Figure 3.4.



The relative order of affixes and clitics should mirror their position in the syntactic derivation, with affixes typically preceding clitics. "Syntactic rules can affect affixed words, but cannot affect clitic groups. ... Clitics can attach to material already containing clitics, but affixes cannot" (Zwicky & Pullum 1983: 4). Affixes are part of the machinery of agreement, and thus happen earlier in the derivation than cliticization, which is largely a post-lexical or s-structure phenomenon. For this reason, a clitic may not precede an affix in an utterance.

Because affixes originate at an earlier derivation than clitics, affixes must precede clitics in their distribution. West Flemish and Cimbrian exhibit both subject and object cliticization, which provide necessary data for exploring this diagnostic.

In West Flemish, there seems to be a mixed distribution. In general, subject clitics precede object clitics, but a subset of object pronouns can optionally precede subject clitics (Haegeman 1992: 80):

> Only three of the object pronouns have clitic-like variants that can precede the subject position: the third person feminine singular (ze), the third person neuter (et) and the third person plural (ze). In addition, we observe that the pronouns which can precede the subjects need not precede the subject. Apparently the pre-subject position is not required by any strong syntactic principle.

3.11. *da-se* *Jan gezien eet*

that-her(weak) Jan seen has

"that Jan has seen her"

3.12. **dat ons Jan gezien eet*

that us Jan seen has

"that Jan has seen us"

(Haegeman 1992: 79)

However, Haegeman concedes that "it is not clear in what sense these object clitics can be said to form a natural class" (80), and that this distribution could be due to the fact that these particular object clitics "are formally identical to subject clitics" (80). This apparent exception to the rule is actually just a wrinkle: object clitics do not normally precede subjects, but a restricted set of

object clitics that *look like* subject pronouns may optionally do so. There is no other characteristic, syntactic or otherwise, shared by the pronouns *ze, et* and *ze* that would allow them to precede subject clitics. Furthermore, the fact that object pronouns that look like subject pronouns only strengthens the argument, in that the (apparent) [+subject] feature is what allows cliticization to C. Following Zwicky & Pullum (1983), this provides evidence that former subject clitics in West Flemish have been reanalyzed as affixes, and are now derived earlier in the syntax.

Cimbrian has a few syntactic characteristics that differentiate it from the other dialects of West Germanic discussed here, though two are particularly relevant to the discussion of the relative order of clitics. Firstly, Cimbrian is a VO language, so objects cannot precede the verb; subjects commonly appear in topic position, but may appear in various other positions, including topically, in second position (similar to V2) and in clause-final position. Secondly, Cimbrian can stack multiple clitics onto both finite verbs and complementizers. What is clear from the data, though, is that, while direct and indirect objects have flexible distribution in relation to each other, object clitics overall cannot precede the subject clitics that have been reanalyzed as affixes. Given below are a few examples (3.13 – 3.15), presented in Schweizer's (2008) original orthography (Castagna 2005: 102-103):

3.13. *Ben hattadars get bidrum?*
Wann hat-er-dir-es gegeben zurück?
When has-he-you-it given back
"When did he give it back to you?"

3.14. *Hèmmest zeelig-ach áu an störiale bonara gòose*
jetzt erzähle-ich-euch auf ein Geschichtchen von einer Ziege
now tell-i-you.PL about a story about a goat
"Now I will tell you all a little story about a goat"

3.15. *hensin gelat gien*
haben-sie-ihn gelassen gehen
have-they-him allowed go
"They have allowed them to go"

Each example shows 'stacked' clitics, where the subject precedes both direct and indirect objects. Additionally, in each example the affix is in a post-C position, mirroring the V2 constraint present in the other dialects of West Germanic discussed here. Since the subject-agreement element (here, an affix) is in a post-C position, the aforementioned restriction against the topicalization of objects is not a factor in the relative position of subject and object(s). In these examples from Cimbrian, the diagnostic from Zwicky & Pullum (1983) shows that subject clitics have weakened to affixes.[27]

As discussed in §3.1 on phase I, de Haan's (2010) work on West Frisian provides a testable hypothesis, using voicing assimilation as a diagnostic for lexical versus post-lexical processes. Progressive assimilation provides phonetic evidence of a lexical process, i.e. affixation/inflection. On the contrary, regressive assimilation signals an active, post-lexical

[27] The prohibition of object clitics preceding subject clitics corresponds positively with the data on other instances of affix/clitic distinction. However, this might be the result of a separate constraint other than the difference between affixes/clitics outlined here. For instance, there may be an independent prohibition of objects preceding subjects in ANY context. Particularly Cimbrian, which has constraints on the position of objects as it is a VO language, might prohibit objects from ever preceding subjects.

process, i.e. cliticization. Additional data is provided from continental varieties of West Germanic, demonstrating progressive assimilation and a more advanced development of the C-agr cycle, relative to WHG data.

Again following that affixes are derived earlier in the syntax than clitics, we assume that affixes form a phonological word with the lexical category to which it is attached. This allows for progressive assimilation. Clitics, on the other hand, are not part of the phonological word, and therefore do not exhibit progressive assimilation, and only optionally – regressive assimilation.

Two examples of clitic doubling taken from Cimbrian illustrate the difference between an affix and a subject pronoun in the second person singular, where the affix exhibits progressive assimilation and occurs first, and the pronominal subject clitic occurs second. In the first example (3.16; (Castagna 2005: 99), the complementizer *as* "if" is followed first by the C-agr morpheme *to* marking second person singular, and then by the enclitic second person singular pronoun *du*.

3.16. *prex nox, as-to-du pist gut*
spricht noch wenn-2SG-du bist gut
speak yet if-2SG-you are good
"Keep talking, if you dare"

Similarly, in example (3.17), the same relative order of affix and pronominal clitic occurs, with the affix *to* marking second person singular, followed by the second person singular pronoun, *du*.

3.17. *geastodu tse vorkXovose d ouksan?*

gehst-2SG-du zu verkaufen-sie die Ochsen?

go-2SG-you to sell-3PL-ACC the oxen?

“Are you going to sell the oxen?”

(Castagna 2005: 97)

In both examples, it is apparent that there are separate forms for the affix *to* and the subject clitic *du*. Specifically *to* shows a progressive assimilation of the voiceless feature of the preceding /s/, whereas the subject clitic *du* exhibits voicing.

The same affixation is apparent in the following example from the 7 Gemeinde, a dialect which licenses pro-drop. Here (3.18), the pattern of progressive assimilation characteristic of the previous examples (3.16) and (3.17), show that the overt *to* is an affix marking person and number, with a non-overt realization of the following subject pronoun. Following this analysis based on phonetic realization, *to* is identifiable as an affix – part of the phonological word with the finite verb, and not as a subject clitic.

3.18. *Gistomars*?

Give-2SG-PRO-me-it?

“Did you give it to me?”

(Castagna 2005: 103)

This example (3.18) also illustrates the order of clitic stacking, in that object clitics from the oblique cases come after affixes and subject pronouns, with especially animate indirect objects preceding direct objects, as in Modern Standard German.

To demonstrate regressive assimilation, a similar example is presented. Like the previous example, this imperative (3.19) does not have an overt realization of the subject pronoun, and does have a cliticized indirect object. Most importantly, the imperative verb form is not one to which a subject pronoun could ever cliticize, because subject pronouns are not overtly realized in imperatives. Thus, the same historical reanalysis of enclitic subject pronouns that lead to the development of C-agreement could not take place in imperatives, and regressive – rather than progressive assimilation – takes place.

3.19. *gimmars subito!*

give-me-it immediately!

“give it to me immediately!”

(Castagna 2005: 103)

In the absence of any overt realization of PRO and in the absence of any process of reanalysis leading to innovative forms, regressive assimilation takes place. Where the /b/ from the verb stem *gib-* “to give” comes in contact with the /m/ of the object pronoun, the /m/ is extended regressively, based also on the co-articulation of the two bilabial phonemes. This is a clear difference between the status of enclitic subject and object pronouns, as well as the development of agreement morphemes in Cimbrian: historically speaking, the data suggest that subject pronouns – and job object pronouns – were historically reanalyzed as inflectional affixes in both

C-agr and subject-inversion contexts. This is observable in the pattern of phonetic assimilation: whereas progressive assimilation in Cimbrian marks the reanalysis of earlier subject clitics as affixes, object pronouns have not been reanalyzed in the same way, and thus remain object clitics.

Returning to data from West Frisian, de Haan's (2010) study provides perceptual evidence, in addition to the production data presented above, that cliticized subject pronouns have been reanalyzed as affixes in C-agreement dialects. In these alternations, the variant exhibiting progressive assimilation was deemed grammatical (3.20a, 3.21a), while the variant exhibiting regressive assimilation was deemed ungrammatical (3.20b, 3.21b).

3.20a. *miskien* [*moasto*] *Pyt helpe*

3.20b. **miskien* [*moazdo*] *Pyt helpe*

Perhaps must-2sg Pyt help

"Perhaps you should help Pete"

3.21a. [*dasto*] *Pyt helpe moatst*

3.21b. *[*dazdo*] *Pyt helpe moatst*

That-2sg Pyt help must

"That you should help Pete"

(de Haan 2010: 227)

This alternation of progressive/regressive alternation shows that the *-to* particle in West Frisian is unambiguously interpreted as an affix by speakers, and not as a subject clitic; the earlier subject

clitic has been reanalyzed as an affix. This holds true for both main (3.20) and subordinate clauses (3.21), and shows not only that speakers' grammar licenses a particular phonetic realization of the lexeme based on grammatical category, but also that speakers are sensitive to the voicing distinction in the phonetic realization in receptive tasks.

3.2.3. Innovative marker - diagnostics

The innovative marker enters at phase IIa of the cycle, as an emphatic pronoun. The co-occurrence of these two markers during phase II is an argument in itself for the reanalysis of the original marker, though here we consider diagnostics related to the reanalysis of the innovative marker.

Willis (2009) proposes the difference between IIa and IIb to be the loss of emphasis and presence of the reinforcer as obligatory. However, these are actually two separate diagnostics. The reduction of the reinforcing feature can be measured in the loss of [+emphasis] in the reading of the clause, though this does not always correspond with obligatory clitic doubling.[28] Following Willis (2009), as well as the analysis adopted in §2.6, the loss of emphasis and the addition of a compensatory marker with i-Phi features evidences a progression from phase IIa to phase IIb.

As a third diagnostic for the reanalysis of the innovative marker, I consider whether the syntactic position can be occupied by a full, subject (nominative) NP. This signals that this syntactic position no longer serves the purpose of reinforcing the original marker, but rather has

[28] This will be noted in differences between Cimbrian dialects.

become reanalyzed as a subject position. At this point, the innovative marker has supplanted the original.[29]

The loss of emphasis refers specifically to one aspect of the transition from sub-phase IIa into sub-phase IIb. Following the path of grammaticalization, this diagnostic identifies whether the reinforcing demonstrative has been reanalyzed as a subject pronoun.

Bavarian has pro-drop across the entire verbal paradigm in main clauses, derived historically from the reanalysis of subject clitics as inflection. Pro-drop in subordinate clauses, though, is restricted to C-agr contexts, which occur only in second person (and first person plural, in some varieties). However, the introduction of a reinforcing pronoun is only grammatical where C-agreement is licensed, i.e. second person subordinate clauses (and 1PL in Lower Bavarian). Additionally, in subordinate clauses "the 2nd person forms are obligatory in all contexts... [and] a full 2nd person subject pronoun is only acceptable if it co-occurs with the relevant clitic form, giving rise to obligatory subject clitic doubling. In these contexts, the full pronoun normally bears focal stress", as in (3.22 – 3.24) (Fuß 2004: 60-61).

3.22. **ob du noch Minga kumm-st*
whether you to Munich come-2SG

3.23. *obst noch Minga kumm-st*
whether-2SG to Munich come-2SG

[29] Though data here is drawn from clitic doubling, this stage of the cycle is not actually an instance of clitic doubling, because the clitic (the original marker) has been reanalyzed as an affix.

3.24. *ob-st DU noch Minga kumm-st*

whether-2SG you to Munich come-2SG

"Whether you come to Munich"

(Fuß 2004: 60-61)

In Bavarian, we see that the reinforcing element is only possible in C-agreement contexts, not in main clauses. Pro-drop in main clauses does not allow the same reinforcing/renewal as is possible in C-agreement contexts. Specific to C-agreement, the status of the innovative marker in Bavarian C-agreement parallels Willis' (2010) sub-phase IIa, where the reinforcing element is optional and bears emphasis.

West Flemish also allows for the co-occurrence of the original subject marker and the innovative marker, and this similarly gives an emphatic reading, "In the position to the right of C in subordinate clauses or to the right of the finite verb in main clauses a pronominal subject is usually realized as a clitic. When the subject is stressed, this clitic may be doubled by an overt pronoun" (Haegeman 1992: 60):

3.25. *Kpeinzen dan-k (ik) goan kommen*

I-think that-I (I) go come

"I think that I'll go tomorrow"

(Haegeman 1992: 60)

This example (3.25) from West Flemish shows co-occurrence of subject clitics and the optional full pronoun, which adds an emphatic reading. Thus, West Flemish shows the same pattern of non-obligatory, emphatic status for the innovative element, marking it as phase IIa. However, where Bavarian has a selective distribution, West Flemish licenses such C-agreement across the entire paradigm (see also Table 3.3 and accompanying discussion in §3.1.4).

West Frisian has an exceptional distribution of verbal and C-agreement inflection. Where other dialects have co-occurring full and reduced subject pronouns giving an emphatic reading, West Frisian has a complementary distribution of -st and -ste inflectional endings, such that *-ste* appears topically and clause-finally; *-st* appears post-C (de Haan 2010: 231). Only the *-st* inflection may occur in C-agreement contexts. Additionally, C-agreement may be realized with either pronoun *do* or *de* (which both cliticize to an already-inflected C), or by PRO. However, neither clitic form *de* or pronominal *do* may co-occur with the *-ste* ending, as shown in examples (3.26 – 3.28).

3.26. *{datst, datste} moarn komme {soest, soeste}*

that-2SG tomorrow come would

3.27. *datsto (<st+do) moarn komme soeste*

that-2SG tomorrow come would

3.28. **datste do moarn komme soeste*

that-2SG you tomorrow could would

"that you would come tomorrow"

(de Haan 2010: 231)

De Haan, however, does not provide any evidence as to whether there is an emphatic reading in either variant. Data has shown that the original subject clitics have been reanalyzed as affixes, and West Frisian does show evidence of the co-occurrence of innovative subject markers with C-agr inflection.

De Haan (2010) provides an argument that differentiates West Frisian from Western/Coastal varieties of Dutch, in that agreement in West Frisian exhibits 'double agreement'.[30] De Haan argues that *-ste* and *-st* inflections are not interchangeable, and that this parallels dialects of Groningen and Brabantish. In this respect, co-occurrence of the *-ste* form and a full pronoun is not a reinforcing of the same agreement marker, but rather an instance of co-occurrence of two systems of agreement that are normally in complementary distribution. It would follow the analysis in chapter 2, however, that the co-occurrence of the original and innovative markers would only occur if the original marker had reduced to the point where it was no longer recognizable as a pronominal form, and lost its i-Phi features. Forms with the more-reduced *-st* inflection are less recognizable as original pronouns than *-ste*, and either provide a

[30] Double agreement will be discussed in further detail in chapter 4.

higher degree of ambiguity during child language acquisition, or reflects a different realization of agreement at PF that is specific to C.[31]

It is also possible that the reduction of clitics in West Frisian began in the post-C syntactic domain, spreading to other syntactic domains only later (cf. Somers Wicka 2011, De Vogelaer 2010). This would explain why the reduction of subject pronouns post-C is more advanced than in other environments, and would also explain why this context is the only one in which reinforcing pronouns may co-occur with the *-st/-ste* inflection derived through the subject agreement cycle. This is consistent with similar data from fieldwork with Bavarian and East Franconian speakers, who restricted innovative pronominal forms to the post-C domain, and often corrected the verb form in final position to the infinitival form.

Table 3.6 Extension of innovative morphology to clause-final position in East Franconian and Bavarian

Sentence	Rating
Er woas ned, dass-ma koi Geid ned ha-ma	2.9 (n=10)
Er woas ned, dass-ma koi Geid ned ham	1 (n=8)
Er woas ned, dass-ma koi Geid ned habent	1 (n=3)

In the given sentence, “He did not know that we had no money”, speakers rated the variant with innovative inflection in verb-final position – outside of the conditioned environment – an average of 2.9 on a scale of 1 to 5, where 1 is most acceptable. However, 11 speakers provided their own, corrected form (here rated with a 1, as their ideal formulation), which in every

[31] Zwart 1993 also argues that this occurs post-syntactically, though at LF.

instance involved a form of the verb in clause-final position other than the innovative inflection. Variants ending with *ham* (*haben*) "had-3PL" alternate with *habent*, based on dialectal variation. The same rejection of the spread of the innovative inflection in Bavarian and East Franconian beyond its conditioned environment may be similar to the restriction of the *-st/-ste* inflection to C-agr contexts in West Frisian.

3.2.4. Splitting of phase II into sub-phases: Bavarian and East Franconian as phase IIa, Cimbrian as phase IIb

Cimbrian shows the most advanced stage of development through to stage IIb, as the only dialect group that does not give an emphatic reading in situations of clitic doubling. Schweizer (2008: 691) writes (my translation),

> Charakteristisch für den Stand der zimbrischen Entwicklung ist de Tatsache, dass häufig neben den enklitischen Formen die Vollformen derselben Pronomina im gleichen Satz auftreten, ohne dass sie besonders betont wären. Dies zeigt wohl deutlich, dass die Enklitika schon völlig zum Verbum gerechnet werden.
>
> Characteristic for the state of Cimbrian development is the accepted fact that the full form of the same pronoun appears with the enclitic form, in the same clause, without it being particularly emphatic. This shows entirely clearly, that the enclitic has already completely been counted as part of the verb.

The following (3.29 – 3.35) are examples of *clitic doubling* in Cimbrian.

3.29. *un alora 6waigest-u du ox*
und dann schweigest-du du auch
and then be-silent-2SG you also
"and then you'd also be silent"

3.30. *Ar habet recht iart och, baip.*

ihr habt recht Ihr auch Frau

you have right you also ma'am

"you are also correct, ma'am"

3.31. *geastodu tse vorkXovose d ouksan?*

gehst-2SG-du zu verkaufen-sie die Ochsen?

go-2SG you to sell-3PL-ACC the oxen?

"Are you going to sell the oxen?"

3.32. *prex nox, as-to-du pist gut*

spricht noch, wenn-2SG-du bist gut

speak yet, if-2SG you are good

"Keep talking, if you dare"

3.33. *Bir morgan beabar ala saagra*

Wir morgen gehen-wir auf die Kirchweih

we tomorrow go-3PL on the Church-fair

"Tomorrow we're going to the Church's fair."

3.34. *Bar kxniabar us aabe*

Wir knien-wir uns nieder

We kneel-3PL us down

"We kneel."

3.35. *asou hatar kxout ear*

so hat-er gesagt er

so has-3SG said he

"He's said so"

(Castagna 2005: 92-103)

Data show that the innovative marker has been reanalyzed from an emphatic pronoun to a subject pronoun. Cimbrian is the only dialect that allows for non-emphatic readings of clitic doubling in instances of C-agreement. This provides evidence in support of differentiating between sub-phase IIa and IIb, as there is a measurable difference in the features of the innovative marker during early and late phase II. Secondly, we see that Cimbrian shows the most advanced progression along the Linguistic Cycle among these C-agreement dialects that license clitic doubling.

Data from interviews conducted in Bavarian- and East Franconian-speaking regions of Germany in 2012, however, provide additional evidence from clitic doubling that phase II must be split into two sub-phases IIa and IIb. While both varieties exhibit phase IIa, Grammaticality judgments with two sentences, shown in Table 3.7 below, show consultants' grammaticality judgments of two sentences based on a 5 point Likert-like scale, where 1 represents natural

speech in dialect, and 5 represents unnatural speech that the consultant has never heard or said. Each of two example sentences has innovative inflectional morphology derived from the reanalysis of subject clitics as inflection; one sentence exhibits subject-verb inversion characteristic of V2 languages in question formation (*Fomma noch Minga?* "Are we going to Munich?), and the other exhibits C-agr (*Sag's mir wennst noch Minga kummst* "Tell me if/when you arrive in Munich"). Both example sentences have variants with and without clitic doubling.

Table 3.7. Clitic Doubling: Bavarian and East Franconian

Subj-Verb Inversion	Rating
Fom-ma noch Minga?	1.11
Fom-ma mia noch Minga?	2.44
C-agr	
Sag's mir, wennst noch Minga kummst	1.71
Sag's mir, wennst du noch Minga kummst	2.17

At first glance, it is apparent that instances of clitic doubling are rated lower on average than instances without clitic doubling. However, on a 5 point Likert-like scale, none of the average values approach something that could be considered unnatural or foreign to the consultants. In looking at individual consultants' responses, however, an interesting trend becomes apparent: wider variation in grammaticality judgments for instances of clitic doubling. For the subject-verb inversion, the non-CD example *Fomma noch Micha?* was rated as a 1 or 2 by all consultants. However, the CD variant ranged in values from 1 to 5; some speakers found CD to be fully acceptable and natural in their dialect, while other speakers from the same dialect region rated

the sentence entirely unnatural. A less extreme version of this pattern repeats for the C-agr pair: almost every consultant rated the sentence between 1 and 3, and one consultant rating it a 4; the CD version showed more variation with 10/15 consultants responding rating it between 1 and 3, and 5/15 consultants rating it between 3.5 and 5. The variation in these ratings of acceptability with respect to clitic doubling may provide evidence that the innovation of clitic doubling through the introduction of a compensatory, reinforcing element is an ongoing process in the speech community, though no discernable pattern can be found in terms of age, gender or level of education where innovation is more common.

In dividing all consultants interviewed by dialect, though, a clearer pattern becomes visible. In looking at the C-agr examples in both Bavarian and East Franconian in Table 3.8 below, it can be seen that speakers of each variety differ in their ratings of both the CD and non-CD variants.

Table 3.8.

	Bavarian (n=11)	East Franconian (n=7)
Sag‘s mir, wennst noch Minga kummst	1.5	2.5
Sag‘s mir, wennst du noch Minga kummst	2.27	2.17

Speakers of Bavarian rate the non-CD variant of the C-agr sentence more highly, on average, than the CD version. The opposite is true for speakers of East Franconian: average ratings for the CD version of the C-agr sentence were rated higher, being considered more natural than the non-CD version of the sentence. This provides an interesting insight into the innovation of the reinforcing element in progress: while speakers of both Bavarian and East Franconian attested to the CD version of the sentence as being *betont* “stressed”, speakers of East Franconian still found

the CD version to be comparably more natural. Thus, even though both varieties exhibit phase IIa of the C-agr Cycle in which the innovative element is optional and emphatic, the progression from one phase of the cycle to the next involves a number of changes that occur within each phase of the cycle. Thus, East Franconian in its higher ratings of CD in C-agr may be more progressed towards phase IIb than Bavarian, which exhibits a preference for the non-CD variant.

3.2.5. Obligatory presence of reinforcing element: Evidence of phase IIb.

In West Flemish and Bavarian, optionally co-occurring reinforcing pronouns give an emphatic reading, which is expected following Willis (2009) for sub-phase IIa. However, Cimbrian data give evidence that the loss of [+emphasis] does not correspond with an obligatory, overt full subject pronoun. All dialects of Cimbrian allow for *clitic doubling* with a non-emphatic reading, but the dialect of the 7 and 13 Gemeinden contrasts with the dialect of Lusern with respect to sub-phase IIb (Castagna 2005: 111) (my translation):

> In Existenzkonstruktionen wurden einige Besonderheiten festgestellt. Hierbei stellt sich für das Zimbrische der 7 und 13 Gemeinden die Frage, ob es sich um eine *pro-drop* Sprache handelt, da in manchen Fällen kein expletives Subjekt auftritt. Das Zimbrische van Lusern ist dagegen keine *pro-drop* Sprache: Die Subjektposition muss immer realisiert werden.
>
> A few peculiarities become detected in existential constructions. Here it begs the question for the Cimbrian of the 7 and 13 Gemeinden, if it has anything to do with a *pro-drop* language, where in many instances no explicit subject appears. The Cimbrian of Lusern is, in contrast, not a *pro-drop* language: The subject position must always be realized.

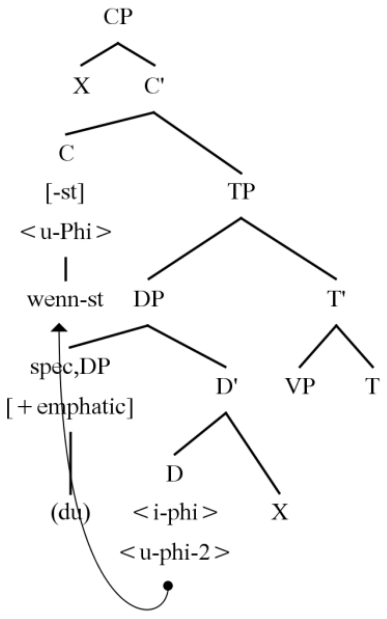
Therefore, we see that there is variation between dialects of Cimbrian. The Cimbrian spoken in Lusern gives non-emphatic readings for clitic doubling situations, and has obligatory overt, full pronouns as expected by Willis (2010) for sub-phase IIb. However, the dialects of the 7 and 13

Gemeinden do license pro-drop, so they provide a counter-example where non-emphatic readings need not correspond with obligatory overt pronouns. The data show, then, that the loss of the feature [+emphasis] can occur independently with the rise of obligatory subject pronouns.[32] At this time, I do not feel that this warrants an additional division of phase II, but rather that the loss of [+emphasis] must precede the addition of i-Phi features on the innovative element.

3.2.6. The syntax of phase IIa

In phase IIa, the original marker has grammaticalized to a head of the subject DP, and lost i-Phi features for second person singular. Either through LMP (van Gelderen 2011) or the reanalysis of pronominal subject clitics post-C as affixes (cf. chapter 2), the original pronoun is realized as an inflectional suffix on the complementizer (Figure 3.5).

Figure 3.5.

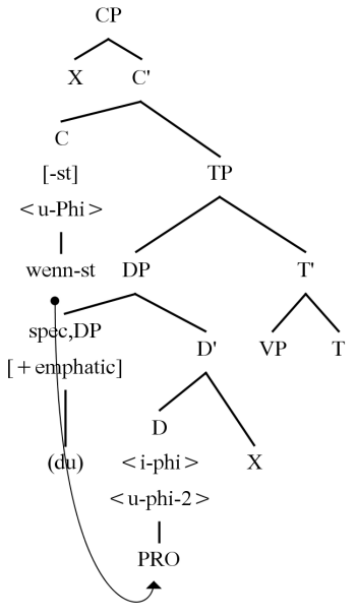


[32] Pro-drop is discussed in chapter 4.

This illustrates a diachronic process and not a synchronic derivation. The arrow in the above diagram does not denote Move or Merge, but rather reanalysis.

Synchronically, the u-Phi features of the syntactic node, C, are checked against the i-Phi features of PRO, in D. The reanalysis of the original pronoun as an affix – and the corresponding loss of i-Phi features in second person – precipitates the introduction of an optional, emphatic, reinforcing pronoun, introduced in the specifier position of the subject DP, consistent with the definiteness cycle (cf. van Gelderen 2007). The innovative marker must agree with the u-Phi features of C, as well as the i-Phi features of PRO, as in Figure 3.6 (cf. van Koppen 2005).

Figure 3.6.

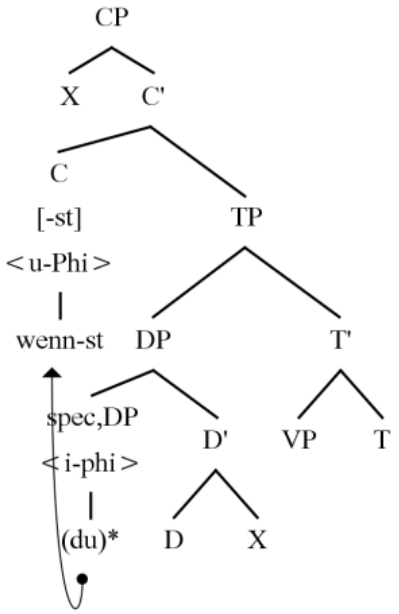


The resulting structure is as shown above.

3.2.7. The syntax of phase IIb

The transition from phase IIa to phase IIb is signaled by the loss of i-Phi features on the original marker, as it is reanalyzed from pronoun to affix[33]. The innovative marker is grammaticalized from an emphatic demonstrative to a full pronoun with i-Phi features. The u-Phi features of C are no longer checked against PRO, but rather against the i-Phi features of the innovative marker, which is now obligatory, shown in Figure 3.7.

Figure 3.7.



3.2.8. Inflected non-complementizer elements in the CP domain

Data from fieldwork conducted in Wisconsin in 2011 and 2012, and in Bavaria, Germany in 2012 provide evidence of inflected indirect objects and topicalized elements in the CP domain, which is a similar phenomenon to inflected complementizers, and also treated as C-agr (Reis 1985, Zwart 1993, 2006, Kathol 2001b). These are instances of inflection on the element in the

[33] Loss of i-Phi features began with second person pronouns in phase IIa, but may spread also to other parts of the paradigm in the transition from IIa to IIb.

CP domain, and occur exclusively in subordinate clauses. It will be argued here that the agreement structure is also the same – consistent with the C-agr analysis elsewhere – and data will be provided from speakers of WHG, Bavarian and East Franconian to support that claim.[34]

Inflection of elements in the CP domain besides true complementizers is actually quite common: WHG speaker R employs the case-less relative *wo* for animates, and inflects these elements in the CP domain for 2nd person singular, characteristic of other varieties of C-agr attested in German (Reis 1985, Kathol 2001a), discussed also for Dutch (Zwart 1993; von Koppen 2005). This is shown in 3.36.

3.36. *Net de Mann wos du 's Geld geben hast.*
Not the man whom-2SG you the money given have
"Not the man you gave the money to!" (speaker R)

Inflection of indirect objects in continental Bavarian and East Franconian is similarly possible. When rating an almost identical sentence for grammaticality, 15 speakers rated the sentence in example 3.37 as an average 1.37 on a 5-point Likert scale, where 1 is completely normal, and 5 is unnatural in the dialect. Only one speaker – who was born in Berlin and later moved to Bayreuth – rated the sentence lower than a 2.

3.37. *Weißt du, wem-st das Geld gegeben hast*?
Know you whom-2SG the money given have
"Do you know to whom you gave the money?"

[34] All consultants also exhibit C-agr.

At this point, it is prudent to note that inflection of topicalized elements other than complementizers is only observed in speakers who also exhibit C-agr with temporal and conditional wh-elements (true complementizers). All four WHG consultants produced C-agr in this context, with examples given below (3.38 – 3.42).

3.38. *Kanns du mir sage afsdu morge koms*? (R)

Can you me say if-2SG tomorrow come?

"Can you tell me if you are coming tomorrow?"

3.39. *Wanns du nach... na'm Store gehst, d'n kauf mi Milich*. (R)

If-2SG you to ... to-the store go then buy me milk.

"If you go to the store, then buy me milk."

3.40. *Wenns du noar Store komms*... (V)

If-2SG you to store come

"If you go to the store... "

3.41. *Wenns du in de Kaufhaus gehst, dann kauf dich... kauf mich Milich.* (O)

If-2SG you to the store go then buy yourself ... buy me milk.

"If you go to the store, then buy me milk."

3.42. *Wenns du 'was kaufen doest ... wenns du zum Stadt geh'n [sic] ... bring Milch mit*

If-2SG you some shopping do ... if-2SG you to-the city go ... bring milk with

wieder zerick. (J)

again back.

"If you do some shopping ... if you go into the city ... bring milk back with you."

Similarly worded temporal/conditional sentences were also judged by Bavarian and East Franconian speakers to be highly acceptable (3.43 – 3.44).

3.43. *Kannst du mir sagen, wannst ankommst*? (1.4 avg.; 15 speakers)

Can you me say when-2SG arrive

"Can you tell me when you (will) arrive?"

3.44. *Sag's mir, wennst noch Minga kummst*? (1.71 avg.; 17 speakers)

Tell it me if/when-2SG to Munich come

"Tell me when/if you come to Munich"

In general, East Franconian and Bavarian speakers rated sentences with inflected topicalized elements relatively high; these ratings were also consistent with ratings for inflected complementizers (see Table 3.9).

Table 3.9.

Type	Head	Bavarian	East Franconian
Complementizer	wennst	1.5	2.5
Complemenziter + Reinforcer	wennst (+du)	2.27	2.17
Temporal wh-	wannst	1.75	1
Locative wh-	wost	1.44	1.17
Topicalized Indirect Object	wemst	1.44	1.3

Data from Bavarian speakers show slight variation between 1.44 and 1.75 on a 5 point Likert-like scale, with locative wh-elements and topicalized indirect objects averaging 1.44, and temporal wh-elements averaging 1.75 on the scale; inflected complementizers were rated in the middle of those two values, at an average of 1.5. The apparent outlier was the reinforced complementizer, which is discussed elsewhere in §3.1.4 and §3.2.4. The East Franconian data show a similar acceptance of inflected elements in the CP domain, with inflected temporal wh-elements averaging a 1, inflected locative wh-elements averaging 1.17 and inflected topicalized indirect objects averaging 1.3. It would even appear that inflection of topicalized elements in the CP domain is more highly rated than inflection of true complementizers, though caution should be exercised for two reasons: first, the small data set of 7 speakers does not permit splitting hairs over such small differences; and second, a vowel merger of short /a/ and /e/ in the dialect may have conflated some ratings for the distinctions between temporal *wann* and conditional complimentizer *wenn*. Suffice it to say that inflected topicalized elements are deemed natural by native speaker consultants.

Additionally, inflection of pronouns within a prepositional phrase is also possible in East Franconian and Bavarian, provided the prepositional phrase is also within the CP domain[35], i.e. if it is topicalized. However, East Franconian and Bavarian show a clear split with regards to the inflection of topicalized prepositional phrases: while East Franconian speakers inflect the object of the preposition (6 of 7 East Franconian consultants), Bavarian speakers do not. Instead, Bavarian speakers insert a case-less complementizer at C to host C-agr inflection (3 of 11 Bavarian consultants). Examples from East Franconian are given below for both the masculine (3.45) and feminine (3.46).

3.45. *Is des de Mann, mit demst (du)*[36] *gesprochen/gret host*? (6 speakers)

Is that the man with whom-2ST (PRO) spoken have?

"Is that the man with whom you spoke?"

3.46. *Is des de Frau, mit derst (du) gesprochen/gret hast*? (2 EF; 1 Bav[37])

Is that the woman, with whom-2SG (PRO) spoken have?

"Is that the woman with whom you spoke?"

Speakers of Bavarian, on the other hand, insert a bare, semantically empty complementizer *wo* to host C-agr inflection, as in (3.47) below.

[35] Note that neither of these were part of the elicitation material; they were corrections of the elicitation sentences provided by multiple speakers.

[36] Some speakers modified the example sentence to introduce an innovative, reinforcing pronoun. This seems to be a matter of preference, and not a matter of grammaticality, and there is variation between speakers (see this chapter, §3.2).

[37] The consultant later recast her utterance to include a Bavarian-like insertion of a "place holder" complementizer.

3.47. *Is des de Mann mit dem wost gret hast?*

Is that the man with whom WO-2SG spoken have

"Is that the man with whom you have spoken?"

This divergent pattern regarding topicalized prepositional phrases in East Franconian and Bavarian plays out pretty regularly across speakers of both varieties. This pattern was not only regular, but almost without exception: No East Franconian speakers inserted a COMP; only one Bavarian speaker inflected a prepositional phrase, but then later provided a preferred example where she inserted a *wo* COMP, consistent with the data from other Bavarian speakers.

3.2.9. The syntax of inflected non-complementizer elements in the CP domain

In the current section, the syntactic structure and derivation will be modeled for the inflection of topicalized non-complementizer elements in the CP domain. Presented here is an MP analysis that is consistent with the account of inflected complementizers presented elsewhere in this dissertation. However, this current analysis does not preclude the application of other formalisms, and this phenomenon has also been treated in a Head-Driven Phrase Structure (HPSG) model by Reis (1985) and a Linear HPSG model by Kathol (2001a).

The following two examples, one from Wisconsin and one from Bavaria, illustrate relative indirect objects inflected for second person singular, and provide a starting point for this analysis (3.48, 3.49).

3.48. *Net de Mann wos du ‘s Geld geben hast*! (speaker R, WHG)

Not the man whom-2SG you the money given have

“Not the man you gave the money to!”

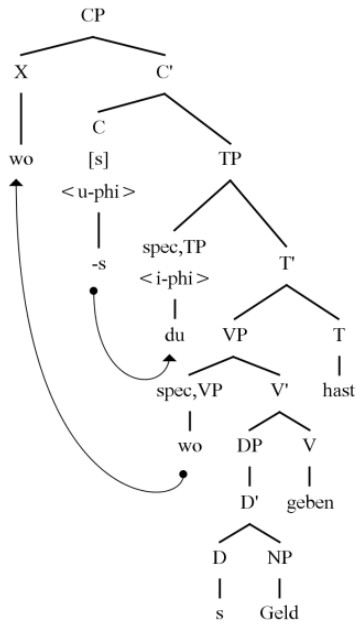
3.49. *Weißt du, wemst das Geld gegeben hast*? (1.37 avg.; n=15)

Know you whom-2SG the money given have

“Do you know to whom you gave the money?”

In both examples, the indirect object raises to a topic position in the CP, specifically spec,CP. The inflectional affix is base-generated in the lexicon and realized on C, as is the case with C-agr in all three varieties (Figure 3.8).

Figure 3.8.



The inflectional *-st* or *-s* affix is realized on C – as in C-agr contexts – but affixes to the indirect object that has raised to the CP domain. Because affixes are not independent or free-standing, and must attach to other elements, there is a discrepancy between the location of the topicalized element in the specifier position common for topics, and the inflectional affix in the head. In the absence of an element in C, e.g. the semantically-empty *wo*, affixes must attach to an element within the same CP domain. Kathol (2001a: 43) points out the problematic nature of this positional separation between stem and affix, noting that the assumption "that the morphological expression of finiteness/agreement is hosted by a phonetically empty element" is an "unappealing conclusion". I would second that sentiment, since evidence for phonetically empty elements is by definition lacking; the inflectional morphology must be affixed to an overt stem. A more appealing account is van Gelderen's (2008) application of the Late Merge Principle, which could allow for a merge of the topicalized element and the C-agr inflectional affix. Citing Chomsky (2005: 14), van Gelderen notes that "external merge is relevant to the argument structure, whereas internal merge is relevant for scope and discourse phenomena" (2008: 296)[38]. Therefore, the indirect objects that agree for case, number and gender, as well as the affix that agrees with the subject for case and number, are separate lexical items whose argument features are licensed during external merge. During internal merge, the indirect object is copied to a higher position in the CP, and merges with the C-agr affix. Positing a Late – or internal – Merge for the affixation of C-agr inflection that has been licensed in the CP, to affix to elements that have merged internally from lower projections locates the uPhi features at a syntactic position, C. This therefore does not require a lexical reanalysis of each and every possible lexeme to be topicalized, which would seem implausible for such a uniformly applied argument structure.

[38] Returning to the discussion of the relative order of affixes vis-à-vis clitics (cf. Zwicky & Pullum 1983), affixes are generated *before* syntactic derivation, e.g. before internal merge.

Furthermore, licensing C-agr affixes on individual lexical items in this instance is inconsistent with current Minimalism, as it would require 1) internal merge to precede external merge, such that items raise to a discourse position prior to the licensing of agreement; and/or 2) that C-agr would be licensed at a lower XP during external merge, with the already-inflected-for-C-agr lexeme merging internally – a prospect that violates a number of economy principles (e.g. Late Merge Principle, 'Last Resort', 'Least Effort') that are central to the manner in which current Minimalism differentiates itself from earlier Minimalist or Chomskian frameworks.

A historical precedent presents itself for the internal, late merge of the specifier and head positions characteristic of what which is here proposed for the late merge of C-agr inflectional morphology and topicalized elements. In van Gelderen's (2008) work on the reanalysis of Old English *æfter* "after" and *for* "for", she invokes the Late Merge Economy Principle to account for the reanalysis of prepositional phrases as prepositions (i.e. phrases > heads), and eventually as complementizers. This grammaticalization begins with the fronting of a prepositional phrase, which afterward "could be reanalyzed as a clause linker and the clause to which it belongs as an embedded adverbial clause" (2008: 294). At this point, the preposition or prepositional phrase is structurally similar to a complementizer, and may be reanalyzed as such. The reanalysis of prepositional phrases as heads – especially as complementizers in C-agr contexts – is a process which would allow for the hosting of argument structures on topicalized elements. The examples from modern varieties of German showing inflection of topicalized indirect objects are a close parallel, since the topicalized elements in C-agr contexts are already the highest element within an embedded clause, such that only the specifier need be reanalyzed as the head within the CP; the clause itself need not undergo reanalysis.

In addition to the inflected indirect objects in the CP domain provided for grammaticality judgment, East Franconian and Bavarian consultants also produced spontaneous *corrections* to the prompt, which included inflected PPs in the CP domain, with embedded indirect objects. However, East Franconian speakers differed from Bavarian speakers in the realization of C-agr on PPs: whereas East Franconian speakers inflected the (object of) the prepositional phrase, Bavarian speakers inserted a *wo* complementizer at C to host inflection.

Examples from East Franconian (3.50, 3.51) show inflection of the topicalized prepositional phrase, with C-agr inflection affixing for both masculine *demst* and feminine *derst*. The second person singular pronoun *du* is optionally introduced as a reinforcing element by some speakers.

3.50. *Is des de Mann, mit demst (du) gesprochen/gret host*? (6 speakers: 5 EF; 1 Bav)
Is that the man with whom-2SG (you) spoken have
"Is that the man with whom you spoke?"

3.51. *Is des de Frau, mit derst (du) gesprochen/gret hast*? (2 EF; 1 Bav)
Is that the woman, with whom-2SG (you) spoken have
"Is that the woman with whom you spoke?"

Because XPs cannot occupy heads in earlier Minimalism, we would assume that the PP raises to spec,CP, resulting in the same specifier-head dichotomy in the analysis of topicalized indirect objects. The same analysis of internal merge may therefore apply: inflection on the phrase is similarly licensed at C – just as in C-agr contexts, or raising of pronominal indirect objects – and

affixed to the element occupying the CP domain during internal merge, following the Late Merge Principle. East Franconian C-agr involving topicalized PPs is therefore consistent with other topicalized elements in C-agr contexts.

Data from Bavarian provides an additional piece of the puzzle, and while Bavarian examples of topicalized PPs in C-agr contexts differ from that of East Franconian, Bavarian nevertheless provides evidence in support of the current analysis. Bavarian shows clearer evidence that the C-agr affix is licensed at C, but differs from East Franconian in that Bavarian does not allow the same Late Merge of the topicalized PP and the C-agr inflection. Evidence for this argument comes from three speakers who inserted a semantically-empty wh-element at C as a place-holder to which the C-agr affix could attach (3.52 – 3.54).

3.52. *Is des de Frau, mit derre wost grit hast*? (BN, HDS, Regensburg)
Is that the Woman, with whom REL-2SG spoken have
"Is that the woman with whom you spoke?"

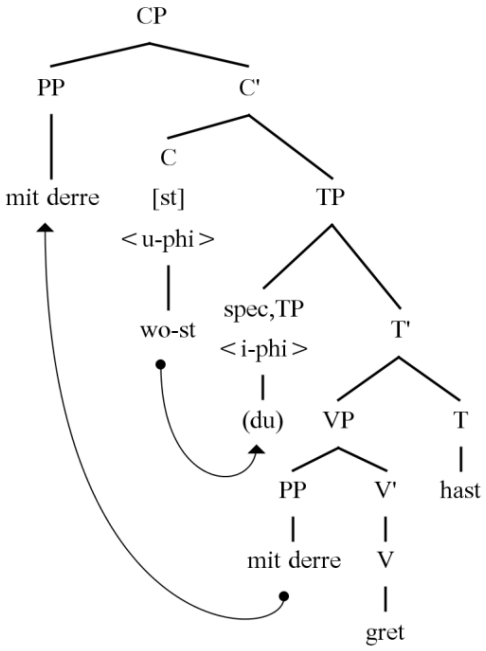
3.53. *Is des de Mann, mit dem woistu grit hast*? (HDS, Regensburg)
Is that the man with whom REL-2SG spoken have
"Is that the man with whom you spoke?"

3.54. *Is des de Frau, mit der was ihr gesprochen habt*? (FDE, Regensburg)
Is that the woman, with whom REL you-PL spoken have
"Is that the woman with whom you spoke?"

The first two examples (3.52, 3.53) are clear examples of the extension of the *-st* inflection from C-agr, affixed to a place-holder at C. The third example provided (3.54) is superficially ambiguous as to whether the *was* is a neutral wh-element or relative pronoun "what/which", or whether it is similar to the other two examples *wo+s* – a semantically-empty wh-element plus an inflectional ending for second person singular. It is likely the latter, and treated here as such.

As in the East Franconian examples (3.50, 3.51) above, C-agr inflection is licensed at C during external merge. During internal merge the PP topicalizes to spec,CP, but in Bavarian – contrary to East Franconian – the C-agr inflection does not merge with the topicalized PP, affixing instead to the place-holder *wo*.

Figure 3.9.



The resulting structure in Bavarian is provided in figure 3.9 above, with both the topic/specifier and complementizer positions both filled, characteristic of the Bavarian 'double filled

complementizer field' (DFCF). An example of DFCF is provided below, where the wh-element *was* co-occurs with the complementizer *dass* (Kathol 2001a: 55).

3.55. *Ich frage mich, was dass Hugo liest.*
I ask myself what that Hugo reads
"I ask myself what Hugo is reading"

In Kathol's analysis, the overt complementizer *dass* is an empty complementizer "that would be unique in allowing this kind of cooccurrence" (2001a: 38). Since an empty complementizer is not in positional competition with other elements in the CP, e.g. finite verb or wh-element, only an empty complementizer – as opposed to a true complementizer – may co-occur with another element in the CP under DFCF. The *wo* complementizer attested in Bavarian C-agr fits this description; it likewise does not prohibit either the co-occurrence of multiple elements in the CP, nor does it inhibit the licensing of C-agr inflectional morphology. But while Kathol's analysis treats these empty complementizers as "allowing" the co-occurrence of multiple elements in the CP by DFCF, the Minimalist analysis outlined here treats the empty complementizers as also prohibiting late merge of elements in the CP; because language-specific reasons permit the co-occurrence of two lexemes in the CP domain, late merge is prohibited. This wrinkle in the language-specific grammar of Bavarian is different from – but not irreconsilable with – the Late Merge analysis for topicalized elements in East Franconian, and for non-XP topicalized elements in Bavarian. Moreover, the *wo* complementizer in Bavarian that prevents Late Merge provides suppporting evidence that the C-agr inflection is licensed at C, and not licensed on individual lexemes during external merge.

Morphological distribution of C-agr shows that WHG, East Franconian and Bavarianspeakers all similarly license C-agr in the same syntactic environments: for true complementizers *wenn/wann/ob/af*, as well as for additional wh- elements, indirect objects and prepositional phrases in the CP domain. An analysis has been proposed here that is consistent across multiple varieties, in which C-agr is licensed at C, and affixes to either the element base-generated in C, or in the absence of an element in C, to a topicalized element in the CP under Late Merge Principle.

3.3. Phase III – Full NP as subject

Stage III of the C-agreement cycle is marked by the appearance of full NPs in the position earlier occupied by the reinforcing demonstrative. The presence of a full NP in this position signals that the innovative marker has supplanted the role of the original marker, both in the sense that the original marker has been reanalyzed as an affix/inflection, and in the sense that the innovative marker has been reanalyzed as a head, allowing full NPs to raise to the specifier position. The following examples (3.56 – 3.62) do not provide evidence from C-agr contexts, but do show related phenomena of wh- questions, existential constructions, and subject-verb inversion contexts. Only dialects of Cimbrian exhibit this most advanced stage.

3.56. *Obrom is-ar khendar Paolo?*
warum ist-er gekommen-der Paolo
why is-3sg come-the Paolo
"Why has Paolo come?"

3.57. *S‘ rede-ta dar Gianni*

es redet-er der Gianni

it-EXPL speaks-3SG Gianni

“Gianni is speaking.”

3.58. *Stiasa alje bou aurne laute?*

stehen-sie alle wohl euren Leute

stand-3PL all well your people

“Is everything well with your relations?”

3.59. ... *isar der Candido net mear khent?*

ist-er der Candido nicht mehr gekommen

is-3SG Candido not more come

“Doesn’t Candido come around anymore?”

3.60. *in dii jaardar habantza de baibar gaerbatet d‘ekhare*

in jenen Jahren haben-sie die Frauen bearbeitet de Aecker

in those years have-3PL the women worked the field

“In those years the Women worked the field”

3.61. *se habent's khot saldo alle de loite me lentlen*

sie haben-es gesagt immer alle die Leute im Dorf

they have-3SG-ACC said always all the people in-the village

"All of the people in the village always said that."

3.62. *asou hatar kxout ear*

as has.3SG said he

"As he has said" (Cimbrian)

(Castagna 2005: 92-103)

In all of the above examples from Cimbrian, we see that the innovative marker has supplanted the original marker: the original marker has become reanalyzed as affixation, and the innovative marker has lost its original emphatic feature and been reanalyzed as an obligatory subject pronoun. As a further development, the subject position that was earlier occupied by the reinforcing pronominal element (demonstrative > pronoun) has been reanalyzed as a subject position capable of hosting a full subject XP. Progression through the C-agr Cycle is also marked by a number of notable characteristics: first, the examples (3.56, 3.57, 3.59 and 3.62) involve the third person, which typologically undergoes reanalysis only after first and second person have. For example, realization of the third person singular pronoun *ear* in example 3.62 shows a different form than the third person plural affix *ar*, providing evidence that the original pronoun was reduced from *ear* to *ar*, then was reinforced by an additional 3SG pronoun, *ear*. Additionally, examples (3.58, 3.60) provide evidence that the C-agr Cycle is also attested in indefinites. Example 3.58's *aurna laute* "your relations" is specific but not definite; example

3.61 includes an indefinite marked by a quantifier, *alle de loite me lentle* "all the people in the village". Van Gelderen cites Fonseca-Greber (2000) in noting that "quantifiers are the least likely to be doubled" in Swiss French, co-occurring with subject markers less frequently than with emphatic pronouns, proper nouns, place names and definite NPs (van Gelderen 2011: 52). The co-occurrence of a third person subject marker and a quantifier as in 3.61 "is the last stage before the pronouns is reanalyzed as an agreement marker. Once that happens, quantifiers generally occur with the clitic/agreement marker" (2011: 53).

Fieldwork from 2012 in Bavarian and East Franconian regions of Germany – as well as much of the dialect literature on C-agr in West Germanic – shows that the introduction of an innovative, reinforcing element in phase IIa of the C-agr Cycle is severely restricted, as compared to Cimbrian, which exhibits stages IIb into stage III. Outside of Cimbrian, clitic doubling of subject markers in modern varieties of West Germanic is emphatic in varieties that permit it, and only West Flemish shows evidence of C-agr and clitic doubling in the third person. Doubled indefinites and quantifiers do not co-occur in Bavarian and East Franconian, and quantifier raising is severely restricted in West Flemish (Haegeman 1992: 203). In Bavarian and East Franconian consultants judged instances of clitic doubling acceptable, but uniformly rejected the introduction of a full pronoun in addition to the original and reinforcing elements, e.g. 'clitic tripling', which is grammatical in Lusern Cimbrian (Castagna 2005).

Table 3.10. Clitic Doubling vs. Tripling in Bavarian and East Franconian

S-V Inversion	Rating
Fom-ma noch Minga?	1.11
Fom-ma mia noch Minga?	2.44
C-agr	
Sag‘s mir, wennst noch Minga kummst	1.71
Sag‘s mir, wennst du noch Minga kummst	2.17
Clitic ‘tripling’	
Mia gem-ma hoam	1.81
Mia gem-ma mia hoam	4.92

In the above Table 3.10, it can be seen that the instances of clitic doubling in Bavarian and East Franconian appear to be marginally less natural sounding – and anecdotally *betont* “stressed” in their interpretation – but are not unnatural sounding to consultants. Clitic tripling, on the other hand, was rated a 5 (the lowest value on the scale) by all consultants but one. Instances of clitic tripling were even rated far lower than instances where two innovative subject markers co-occur, in the example sentence *Mia gemma hoam* “We are going home”, in which the pronoun *Mia* and 1PL inflection *-ma* are both derived from the reanalysis of a post-verbal 1PL pronoun *wir* (cf. Fertig 2000: 47, De Vogelaer 2010). This provides evidence that the subject-agreement and C-agr cycles are more progressed in Cimbrian than in other modern varieties of West Germanic. Clitic tripling is also ungrammatical in West Frisian, as in 3.63 (de Haan 2010: 230).

3.63. *datste do moarn komme soeste

that-2SG-you you tomorrow come should

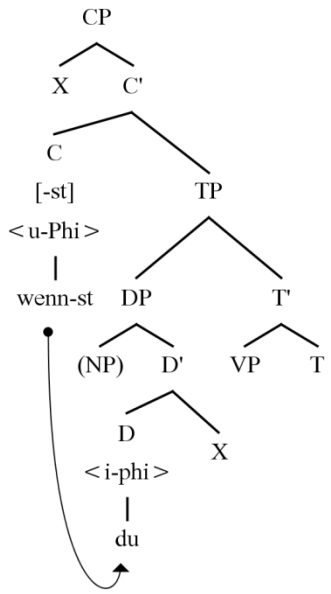
"That you would come tomorrow"

In the above example, the complementizer is inflected *-st* for C-agr, plus an additional, reinforcing element (pronominal clitic *-te*) to produce *datste*. This would be an example of clitic doubling. The addition of a third overt agreement, however, is not possible. This is consistent with the subject-agreement cycle: if the pronominal subject possesses i-Phi features, it will not be reinforced by an innovative element. This is indeed the case with the West Frisian example above, as the reinforcing *-te* clitic is marked for i-Phi features. In fact, without i-Phi features, it would not serve as an appropriate compensatory element for the lost i-Phi features of the original pronoun, since reanalyzed as the affix *-st*. The prohibition on clitic tripling shows that the reinforcing element *-te* has not lost i-Phi features, and the introduction of a third pronominal element is not motivated.

3.3.1. The syntax of phase III

Following van Gelderen's HPP (2007, 2011) or similar principle of economy, the specifier position is reanalyzed as a head. This reanalysis of the reinforcing element leaves the specifier position open as a possible landing site for subject NPs, allowing for subject NPs to co-occur with C-agr and related phenomena. Again following van Koppen (2005), the innovative pronoun and the subject NP must both agree with one another, as well as with the u-Phi features on C (Figure 3.11).

Figure 3.11.



As in Swiss French (Fonseca-Greber 2000, van Gelderen 2011) and Cimbrian (Castagna 2005, Schweizer 2008) the innovative pronoun introduced in phase II remains,[39] and the inflection on C is still realized through feature-checking of the i-Phi features of the subject pronoun. The Mirror Principle holds for Swiss French (3.64) as well as in WHG (3.65, 3.66) where the topicalized subject NP precedes the agreement marker.

3.64 *une omelette elle est comme ça*

an omelet she is like this

"An omelet is like this." (Fonseca-Greber 2000: 335; van Gelderen 2011: 53)

[39] The innovative pronoun – now an agreement marker – is obligatory in Swiss French, but varies in distribution in Cimbrian, dependent on context.

3.65. *Im Herbst die trockenen Blatter die, die fliegen in die Luft.*

In-the Fall the dry leaves they they fly in the air

"In the Fall the dry leaves fly in the air" (Seifert Corpus, Max Kade Institute, University of Wisconsin-Madison)

3.66. *Die Fresch die singen.*

The frogs they sing.

"The frogs are singing." (Seifert Corpus, Max Kade Institute, University of Wisconsin-Madison)

One exceptional case is Cimbrian, in which the pronoun (now a subject marker) precedes the full NP that it co-occurs with, as in examples 3.56, 3.57, 3.59 and 3.62. Kolmer suggests that Cimbrian exhibits a strong tendency towards second position clitics, and that subject clitics appear most often as congruence markers on the finite verb, especially in instances of subject doubling; whether subject clitics obligatorily double full NPs varies by syntactic and pragmatic context (2012: 183-197). I take the variation exhibited by Cimbrian – as compared to the other modern varieties of West Germanic discussed here – not as a counter-example to my analysis of the Linguistic Cycle, but rather as language-specific developments resultant from a number of diachronic factors, not the least of which being centuries of heavy language contact with Northern Italian varieties, in isolation from other speakers of Germanic.

3.4. The syntax of the VP

At this point it is beneficial to discuss what occurs within the VP, especially with regards to the pronominal subjects. Consistent with the MP's view that syntax trees are built from the bottom up, we assume that subject pronouns are merged externally in VP, and that iPhi features are already licensed before internal merge – or raising, to use a different term – to TP/CP. Thus, in phase I of the C-agr cycle, pronouns retain subject status, and reinforcing demonstratives are not necessary.

In phase IIa, the reinforcing element is optional. My analysis locates an optional, emphatic element in phase IIa as part of external merge, since it doesn't possess any person or number features that should be checked during internal merge (see the Bavarian *wo* example in 3.52 – 3.54). Additionally, since the reinforcing element only serves to add emphasis, locating it comparatively late (i.e. in internal merge) is justified, since it serves only a discourse function (i.e. emphasis). One potential problem with this account is that the morphological shape of the emphatic, reinforcing element is the same as that of the 2SG pronoun, e.g. *du*, which would seem to argue for an origin in a lower XP, e.g. VP, along a more canonical type of agree. However, following a Linguistic Cycle analysis, the innovative element – an emphatic pronoun – is expected to be drawn from the same paradigm or lexical category as the original element – the subject pronoun. The reinforcing *du* is therefore the same morphological shape, but does not possess the same features as the pronoun *du*. Moreover, locating the innovative element in a subject-like position (adjunct phrase or specifier position) in the TP would be most economical in that it is maximally local to the original element, now in the CP.

In phase IIb, the original pronoun is reanalyzed as an affix externally merged at C. The derivation is therefore without iPhi features on any pronominal element; a new pronominal

element is necessary in the derivation. One possible solution is the introduction of a second pronoun through a canonical process of agree, merging the pronoun externally in the VP, then internally to a higher XP, e.g. spec,TP. However, this would be at best dis-preferred under van Koppen (2005), and at worst a violation of the same, in that the C-agr would have to probe for the least local iPhi features in the tree in order to license agreement during external merge. Furthermore, speakers already have access to a structure from phase IIa in which an externally-merged emphatic pronoun-like element occurs in a maximally local position. Under a process of grammaticalization expected in the Linguistic Cycle, the reinforcing element would be reanalyzed from an emphatic or demonstrative pronoun into a subject pronoun, and from a specifier position into a head. These changes due to grammaticalization simply shifts the reinforcing element from a discourse element introduce in internal merge, to subject agreement introduced in external merge. In this way, the reinforcing element in phase IIa is differentiated from the compensatory subject pronoun in phase IIb; and the reinforcing/compensatory elements in both halves of phase II are differentiated from canonical pronouns, which are merged externally in the VP. This solution additionally is the most economical account, since the uPhi features at C would probe for the most local iPhi features in the tree, in TP.

Phase III continues the grammaticalization of the innovative element, such that it does not occur in a specifier position as a full pronoun, but rather consistently appears as a pronominal head, moving towards becoming itself an agreement marker. This allows the specifier position to accommodate full NPs, which raise – or are merged internally – from VP for pragmatic reasons, e.g. for emphasis, contrast, specificity, etc.

3.5. Chapter summary and conclusion

This chapter provides a number of diagnostics to discern the degree of the progression of the linguistic cycle specific to C-agr. Based on these diagnostics, I have shown that each variety attests to a different phase of the C-agr cycle. Additionally, I have provided synchronic analyses of each diachronic phase of the cycle, where a subject-agreement cycle of renewal occurs between (and within) the subject position at spec,TP and the complementizer at C. Each phase of the cycle is consistent with van Koppen's (2005) locality constraint, and takes into consideration both diachronic change and synchronic licensing of C-agr.

Phase I of the cycle is attested in Wisconsin Heritage German, which shows C-agr for second person singular, though contrasts with European speakers of East Franconian and Bavarian in a handful of ways. First, Wisconsin Heritage German shows evidence that C-agr was derived through the reanalysis of phonetically-derived hiatus effects, and not through the reanalysis of subject pronouns post-C. Secondly, pronouns in Wisconsin Heritage German maintain their clitic status, as evidenced by phonetic analysis. These two observations provide evidence that the subject agreement cycle in C-agr contexts may begin with a phonological process leading to reanalysis, and not necessarily through solely a language-internal process of grammaticalization of subject pronouns. The result of reanalysis is the presence of u-Phi features on the syntactic node, C, which may act as a pull-chain to initiate the subject agreement cycle of renewal, which conspires with the functionalist push-chain proposed by van Gelderen (2011) to accelerate the cycle.

Phase II of C-agreement is triggered by the reanalysis of subject pronouns in the post-C syntactic domain as affixes, compensating for the loss of i-Phi features with the introduction of

an innovative marker. The innovative marker is first optional and emphatic in phase IIa, and later becomes a non-emphatic and obligatory pronoun in phase IIb.

Bavarian, and West Flemish C-agreement all show characteristics of phase IIa, where optional clitic doubling produces an emphatic reading. West Frisian similarly shows evidence of the introduction of a reinforcing element, though there is no evidence as to whether it provides an emphatic reading. Therefore, West Frisian cannot be identified as either phase IIa, or IIb, although it is clearly located in phase II. In terms of pronominal clitic doubling, the Cimbrian dialect of Lusern shows non-emphatic, obligatory innovative subject markers, as would be expected of phase IIb. This difference between the grammars of West Flemish and Bavarian, on the one hand, and Lusern Cimbrian on the other, justifies the distinction proposed by Breitbarth (2009) and Willis (2010) that phase II, during which both original and innovative markers co-occur, is comprised of at least two sub-phases. Additionally, the Cimbrian dialects of the 7 and 13 Gemeinde exhibit non-obligatory, non-emphatic pronouns in tandem with the original marker, which would not be expected by either phase IIa or IIb. This argues that +/- [emphasis] and optional/obligatory are two separate diagnostics for the reinforcing element, with the loss of emphasis preceding the addition of i-Phi features.

In phase III, the innovative marker supplants the original marker, and may itself be reinforced – or replaced – by full subject NPs. All dialects of Cimbrian allow for full subject NPs to co-occur with the original subject marker, signaling that the cycle of renewal has completed through stage III. Through reanalysis, the innovative marker has lost its previous demonstrative/emphatic features, and taken on all of the features of a nominal subject position.

Through the combination of phonetic, morphological and syntactic diagnostics, I have provided not a single account of C-agr, but rather a unified diachronic-synchronic account that

allows for a degree of variation based in the degree of progression through the C-agr cycle. In accounting for such variation based on historical language change, we gain not only a better understanding of C-agr phenomena, but also a better understanding of the degree to which diachrony and synchrony interact in language change.

Chapter 4

4.0. C-agr through Analogical Extension OR Non-pronominal C-agreement in modern West Germanic

This chapter discusses an alternate account of C-agr discussed in literature on the topic, that C-agr phenomena may develop not through the reanalysis of subject pronouns, but rather through the analogical extension of the verbal paradigm to C-agr contexts. This goal of this chapter is two-fold: 1) to address this alternate account of the development of C-agr; and 2) to consider the possibility that analogical extension may be an additional mechanism of syntactic change that contributes to the Linguistic Cycle. In the following sections, I will discuss how the analogical-extension model differs from the C-agr Cycle discussed in chapters 2 and 3. It is should become clear that these are not two separate approaches to the same data set, but rather two distinct historical processes of reanalysis that both result in C-agr, either independently or in concert. The goal of this dissertation remains the same: not to devise a single unified model of how C-agr developed diachronically and functions synchronically, but rather to analyze analogical-extension C-agr as a separate-but-related phenomenon, and a contributing factor to the development and progression of the C-agr cycle.

This chapter begins with an overview of the analogical-extension model following Zwart (1993) and Kathol (2001b), followed by a discussion of the differences between the pronominal-reanalysis and analogical-extension models. Data from West Frisian and varieties of Dutch illustrate analogical-extension C-agr, and a syntactic analysis will follow. Lastly, we will consider two additional phenomena linked in the literature to C-agr of this type: pro-drop and the loss of clausal asymmetry. I conclude that inflected complementizers may develop through a

parallel process to that outlined in chapters 2 and 3, with striking differences in the syntax of both.

4.1. Analogical Extension

Along with reanalysis and grammaticalization, 'analogical extension' is a vehicle of language change that warrants definition, both in the developmental process, and its resultant syntactic changes. As eluded to in chapter 1, I follow two premises laid out by Harris & Campbell (1995) regarding the process of extension: 1) that "extension can eliminate exceptions and irregularities by bringing the new analysis into line with the rest of the existing grammar" (1995: 97); and 2) that extension is rule-governed and based analogically on extant elements of the grammar, that "the process of extension is systematic … . Observed extensions generalize to a natural class based on categories already relevant to the sphere in which the rule applied before it was extended" (1995: 101). To be clear, however, Harris & Campbell's definition of extension restricts it to a "mechanism which results in changes in the surface manifestation of a pattern and which does not involve immediate or intrinsic modification of underlying structure" (Harris & Campbell 1995: 51; cf. Harris 2003: 532); changes in the underlying structure are attributed rather to a separate process, e.g. reanalysis or grammaticalization. In fact, their approach restricts extension to a mechanism that may result from analogy, and may lead to reanalysis, but is not directly linked to changes in the grammar. In my analysis, I draw a closer parallel between analogy and extension. As argued in chapters 2 and 3, especially systematic extension of a given condition or structure occurs first through reanalysis in the Lexicon, which is only afterwards licensed in the derivation (cf. van Gelderen 2011, Chomsky 2002, 1995). Even phonetic effects (cf. §xx) occurring in the performance grammar must be reconciled in the competence grammar,

such that reanalysis still occurs in the Lexicon, regardless of the impetus for change (van Gelderen, p.c.).

Harris & Campbell's formalization of extension also requires modification. Defined as "Extension of a rule R is limited to removing a condition from R" (1995: 114), this definition of extension is not applicable to C-agr phenomena in which the 'conditions' – agreement structure, presence of u-Phi features on C, and the restriction of C-agr to a part of the paradigm or with inflection specific to the syntactic environment – INCREASE in complexity through their addition rather than their removal. Harris & Campbell's definition of analogical extension is restricted to a process of leveling through simplification rather than through complexification, and a broader definition is necessary. In the following paragraphs, I provide morphosyntactic, morphophonemic, pragmatic and semantic applications of extension that will inform my own definition, considering increased complexity through a rule-based, analogical process.

Providing evidence on morphosyntactic extension Mithun gives examples that result in more complex structures over time (2003: 561):

> Comparative evidence shows that the evolution of the past contemporative [in Yup'ik] is part of a larger constellation of similar processes, all involving the extension of derivational suffixes to new functions as inflectional mood markers. … The gradual evolution of the system as a whole indicates even more clearly that such extensions become established in the grammar slowly through use, rather than instantaneously as the result of a single structural reanalysis.

Evidence from Yup'ik shows that derivational suffixes may be repurposed through extension to other aspects of the grammar. Closely paralleling the process of analogical extension of the verbal paradigm to C-agr contexts outlined below, the extension of derivational suffixes in Yup'ik to other parts of the grammar involves the extension of underlying structures of feature marking. This provides evidence that underlying structure can be altered by analogical extension.

Hock (2003: 442) gives the example of ‘morphophomenic extension’, which “is a rare alternative to leveling”, where difference between two phonetic environments is leveled through the insertion – rather than deletion – of a morpheme. Hock considers the British English ‘intrusive r’. In many dialects of British English, the inherited (even orthographic) /r/ is deleted at the end of a phonological word. However, it is retained when the following word begins with a vowel, i.e. when the /r/ appears intervocalically. The /r/ is therefore deleted in “the matter was”, but retained in “the matter is”. There is therefore a phonological difference between the same phoneme /r/ that appears in the same position within a morphological word, but a different phonological word. This discrepancy is resolved through the ‘intrusive r’, which is “inserted between a word-final (non-diphthongal) vowel and a following word-initial vowel and which traditionally is motivated in terms of a proportion of the type” (2003: 442). That is to say, an /r/ is inserted into a phonological condition where the /r/ would be retained intervocalically, albeit in lexical items that did not historically have an /r/. The example given by Hock is the unaffected “the idea was”, but the insertion of an /r/ into the phrase “the ideaR is”, which is an analogical extension of the /r/ from examples like “the matter is”, where the inherited /r/ is retained. The generalized rule is r-final deletion. However, the retention of /r/ intervocalically was extended to the same phonetic environment also in words (e.g. idea) that did not historically have an /r/. What is important for us is that this type of ‘extension’ applies a generalized rule to examples that are not historically (or phonetically) conditioned, and that the specific type of ‘leveling’ called ‘extension’ can result in the ADDITION of a phoneme, and not just the reduction in number or complexity of phonemes.

Fortson (2003: 647-648) discusses semantic applications of extension, with two variants. ‘Metaphoric extension’ refers to a process whereby a word “gets a new referent which has some

characteristic in common with the old referent", e.g. head > front, leader, foremost; and 'metonymic extension', which "results in a word coming to have a new referent that is associated in some way with the original referent." (e.g. blue-collar, white house). In both instances, the semantic meaning EXTENDS to include a new referent through an analogical process. The result is an increase in the number of possible referents, and an expanded semantic range associated with the lexical item. Similar to the discussions of morphosyntactic and morphophonemic extension, these types of semantic extension result in a change in the underlying structure of the lexical item, as formulated in the Lexicon.

C-agr through an analogical-extension model (De Vogelaer 2010, Zwart, 1993, 2006; Kathol 2001b) is derived through extension of verbal inflection marking to complementizers in subordinate clauses, on analogy to Vfin agreement marking at C. This is a parallel development to C-agr through pronominal-reanalysis (cf. chapters 2 and 3), resulting in C-agr through a different process. Zwart argues that "complementizer agreement originates as an analogical extension of the morphology of the verb in verb—clitic constructions to the complementizer in complementizer—clitic constructions", expressing this in the schema (Figure 4.1.) below (2006:67).

Figure 4.1.

kunt : kunne :: dat : datte

Zwart is clear that this is an analogical process, and not a development resulting from any syntactic derivation or from an existing agreement structure or goal-probe relationship. It is a

process where the shape of inflected Vfin at C in main clauses is extended to complementizers at C in subordinate clauses. An example is given below (4.1.) from Dutch (Zwart 2006):

4.1. *dat-e se spel-e*

that-3PL they play-3PL

"…that they play."

South Hollandic Dutch (Zwart 2006: 53)

In this example, the *-e* inflection of the third person plural has been extended from the finite verb to the complementizer, such that both the complementizer and the finite verb share the same inflection. The same analogical extension is present in four examples from a letter written by Geertruyde Huygens in 1622. The inflectional element *-e* present on the complementizer *dat-* in first person plural is the same used by Huygens in 4.2 – 4.4 as the verbal inflection for first person plural (Howell, p.c.). It is therefore an additional example of analogical extension of the verbal paradigm to C-agr contexts.

4.2. *dat-e we hade*

that-1PL we had

"That we had…"

4.3. *dat-e we t al de luy liete kycke*

that-1PL we it all the people let look (at)

"That we let all the people look at it"

4.4. *dat-e we toch altemet eens singe soue*

that-1PL we then perhaps once sing should

"that we should then perhaps sing"

In addition to the inflection of the complementizer *dat* "that", there is also one attestation of an inflected wh-element acting as a subordinating relative particle (§3.2.8).

4.5. *wat-e we r al gedaen hadde 'wat wij er al gedaan hadden'*

what-1PL we there already done had

"What we had already done there"

It is important to note, however, that while the inflection on C appears to be the same as with verbal agreement, C-agr is derived from an analogical extension of agreement marking specific to a SYNTACTIC position, and not derived from verbal agreement directly. This is evident from East Netherlandic (Goeman 1997; Axel & Weiß 2011), which is an example of 'double agreement', where inflectional affixes are specific to a given syntactic domain. Inflection of 3rd person plural in East Netherlandic for Vfin at C is *-e*, whereas inflection clause-finally is a -t.[40] This is shown in example 4.6 below.

[40] Both derive from an original *–et* ending in both positions, though the *t* was lost post-C due to assimilation with subject pronouns. The *e* was lost clause-finally due to syncope.

4.6. *… datt-e wij speul-t.*

that-1PL we play-1PL

"… that we play"

Eastern Dutch (Zwart 1993: 256)

In the examples given, we see that the verbal inflection for C-agr is extended from the inflection specific to the syntactic position, and not derived from a lower projection, e.g. VP. This example supports the analogical-extension account of this type of C-agr, which posits C as the locus for syntactic reanalysis: extension of agreement to complementizers draws on the inflectional shape of Vfin at C, extending agreement to complementizers through a process of analogy and not through a syntactic derivation of 'canonical' agree linked to – or related to – agreement marking in a lower XP. This is consistent with van Koppen's (2005: 32) definition of locality, which defines the i-Phi features directly c-commanded by C (e.g. subject pronouns at spec,TP) as being 'more local' than the i-Phi features of a lower XP (e.g. VP). In varieties exhibiting double agreement, we see that the two possible domains of subjects in modern varieties of West Germanic (excluding English) are realized with different morphological inflection.

The analogical-extension model thus extends the ability to license agreement from a verbal component (e.g. VP or TP) to a phrasal component, i.e. CP, through an indirect, analogical process which occurs at the syntactic node, C. Therefore, through reanalysis, items occurring at C in subordinate clauses are base-generated in the lexicon with affixes specific to that position, and the node C has u-Phi features that must be checked against the i-Phi features of subject pronouns.

4.2. Double Marking in C-agr

Double marking also occurs in other varieties exhibiting C-agr, including those with C-agr derived through pronominal reanalysis. In these examples, however, contra the analogical-extension example, the inflection specific to the post-C syntactic domain is derived through phonetic hiatus effects that are reinterpreted in the phonology to create an innovative inflection, and not merely one adopted from an existing paradigm. Additionally, the directionality of change is reversed: whereas in the analogical-extension model discussed in the previous section extends u-Phi features and overt agreement marking on C, based on the model of the verbal paradigm, double marking in pronominal-reanalysis C-agr begins with a phonetically motivated reanalysis specific to C, extending to clause-final position only later (if at all). Some examples are provided below, from Central Bavarian in 4.7 – 4.9 (Weiß 2005: 153-154).

4.7. *dasma mia aaf Minga fahrn/*ma*

that-1PL we to Munich go

"that we go to Munich"

4.8. *Mia fahrma/*n aaf Minga.*

we go to Munich

"We are going to Munich."

4.9. *fahrma/*n mia aaf Minga*?

go we to Munich

"Are we going to Munich?"

In these three examples, we see that 1) the innovative *-ma* inflection for first person plural is the only acceptable inflection for main clause and subject-inversion contexts; but 2) has not spread to a clause-final use, as was historically observed with the second person singular *-st* in standard German (cf. Somers Wicka 2011). The same division is observable in Bavarian and East Franconian, based on my own fieldwork conducted in 2012 (Table 4.1). The table below provides ratings of grammaticality judgments on a 5-point scale, where 1 is "completely normal; something you'd commonly hear spoken"; and 5 is "ungrammatical; something you would not say or hear spoken".

Table 4.1. Extension of Innovative Inflection to Clause-final Position: Bavarian and East Franconian

Sentence	Rating
Er woas ned, dass-ma koi Geid ned ha-ma	2.9 (n=10)
Er woas ned, dass-ma koi Geid ned ham	1 (n=8)
Er woas ned, dass-ma koi Geid ned habent	1 (n=3)

In these examples of "He did not know that they had no money", it's clear that double marking is the norm: double-marking produces a higher acceptability rating on a 5-point scale than the example sentence where the innovative marker is extended to the clause-final position. The arithmetic mean may be misleading, however, as three of the ten speakers rated the clause-final sentence 1, "totally normal", while 3 others rated it 5, "ungrammatical". I take this wide – almost diametric – variation in acceptability to mean that the presence of the innovative inflection in

clause-final position is an innovation; extension beyond the conditioned environment thus appears to be underway (cf. §3.1.4, §3.2.4).

The presence of double agreement in C-agr varieties provides evidence that the post-C syntactic domain is the locus for change. In the process of analogical-extension of verbal inflection to C, the inflection on C is specific to verbal inflections post-C, and is therefore does not develop through an agreement with a lower XP, e.g. VP. Similarly, C-agr developed by pronominal reanalysis may also develop double marking, albeit with an innovative pronominal or inflectional element specific to the post-C syntactic domain, and not the analogical extension of an existing morpheme.

4.2.1. An alternate account of analogical C-agr and Double Marking

The model of analogical extension of C-agr inflection proposed by Zwart (1993, 2006) does run into problems when approaching the morphological patterns historically, especially in light of the wide variation of verbal inflection in C-agr contexts in varieties of Dutch and Flemish. In this section, the discrepancies will be presented.

It is worth noting at the outset that not all varieties of Dutch and Flemish exhibit C-agr, and those that do exhibit C-agr do so in different parts of the paradigm, and employ different inflectional morphology. In fact, there are four major dialect areas in the Netherlands that exhibit robust C-agr: West Frisian, East Netherlandic, Franconian, and West Flemish. Each variety has a distinct subset of the paradigm that exhibits C-agr, and a distinct set of inflectional morphemes that mark C-agr (Barbiers, et al.: 19-21).

In looking at West Frisian and Franconian varieties spoken within the national borders of the Netherlands and Belgium, the distribution and inflection of C-agr matches with the data from

German, exhibiting the same *-st* inflection for 2SG. This is not surprising, since both varieties historically had the same phonetic and syntactic environments that gave rise to C-agr in German varieties of Franconian. These inherited the same *-s* inflection from Germanic, and also have a 2SG pronoun beginning with a dental (e.g. informal *doe* in Limburgish; informal *do* in West Frisian). Franconian dialects spoken in the Netherlands and Belgium also have a 2PL *-t* inflection, which is similarly derived from the reanalysis of 2PL pronoun *dir* (cf. Weise 1907). West Frisian and Netherlandic varieties of Franconian therefore follow the C-agr cycle analysis outlined in chapters 2 and 3, rather than the analogical extension model proposed by Zwart. Discussed at length elsewhere in this dissertation, West Flemish also derives C-agr inflectional morphology through the reanalysis of subject clitics.

The only remaining region of the Netherlands in which C-agr is robustly attested but not demonstrably derived through the reanalysis of pronominal subject clitics is East Netherlandic, mentioned by Zwart (1993, 2006). This particular dialect region seems to stand as the exception to the C-agr cycle model, in that 1) C-agr is attested in third person as well as first person plural, but not second person; and 2) the inflectional morphology is apparently derived from the verbal paradigm and not from the pronominal paradigm (*-t* in 3SG; *-e* in 1PL and 3PL). Still, however, the C-agr inflection may not be completely independent from the influence of phonetic effects derived from contact with subject pronouns, as the *-e* inflection in 1PL and 3PL is ambiguous as to whether it was originally derived from *-en* and reduced to *-e* (e.g. through nasalization) or from *-et* and similarly reduced through t-deletion.[41] Following Goeman (1999), t-deletion in varieties of Dutch occurs with regularity, both in specific phonetic environments, as well as in highest frequency with inflectional elements. Frequency of t-deletion in the second person

[41] Of the two inflections, *-et* is more likely the source of inflection in Eastern Netherlandic, since the *Einheitsplural* inflectional form is *–t*. At the same time, it is then ambiguous as to whether the original *–t* in the inflection is derived from a verbal or pronominal source.

singular inflectional paradigm occurred 29% of the time, but overall frequency of t-deletion was highest when /t/ was clustered with another consonant in word final position, and followed by another word initial consonant (69.96-63.46%). This phonetic environment would occur with regularity, most notably in subject-verb inversion contexts, or in subordinate clauses, where a pronoun with an initial consonant occurs directly adjacent to inflectional morphology, either on the finite verb or on an inflected complementizer. The fact that this syntactic environment is the same locus for language change as in the C-agr Cycle casts doubt on whether the data from East Netherlandic is an unambiguous example of C-agr arising through solely analogical extension, or whether aspects of the C-agr Cycle may have played a role in the development of C-agr in that variety, being later obscured over time by phonological reduction and morphological leveling. While this does cast doubt on whether analogical extension can in and of itself lead to the development of C-agr, it does not exclude it as a possible contributing factor. In any event, the data from East Netherlandic must be considered – even in the most conservative of evaluations – as an outlier rather than the norm.

4.3. Pro-drop

The pronominal-reanalysis and analogical extension models differ greatly with respect to pro-drop (pro-drop being here defined as the non-overt realization of pronouns). Though both mark agreement by inflecting complementizers at C, C-agr developed through pronominal reanalysis will predictably license pro-drop as an intermediate stage of a subject-agreement cycle of renewal, at phase IIa. C-agr derived from analogical extension of inflection at C, however, does not involve pronominal reanalysis in its development, and therefore will not license pro-drop. Drawing on data from West Frisian, West Flemish, Bavarian and Cimbrian, it will be argued

here that the licensing of pro-drop in C-agr contexts is derived as a phase of a historical process of reanalysis, and not through an independently-arising agreement structure.

Recent scholarship on C-agr has argued that pro in C-agr is licensed through a c-command relationship of pro. Most recently, Axel & Weiß (2011) argue that "pro must be c-commanded by pronominal agreement" (2011: 13), arguing that the syntactic structure of pronominal C-agr differs from that of verbal C-agr. However, while I agree with Axel & Weiß that there is something 'pronominal' about the licensing of pro-drop in C-agr contexts, my diachronic analysis of the differences between the developments of the two types of C-agr provides a more predictive analysis. I argue that the licensing of pro-drop in C-agr contexts results from one of two processes whereby C-agr historically arises, specifically in the reanalysis of subject pronouns. Therefore, I do not make a distinction in the agreement structure at C between the two developmental models, either in terms of C-command or otherwise. I argue that the agreement structure at C in both types of C-agr is the same, Minimalist Program approach of u-Phi features on C, with overt agreement being licensed in the Lexicon and realized through a goal-probe relationship with the syntactic subject position; the agreement structure at C doesn't affect the licensing of pro-drop in C-agr contexts. Rather, the existence of pro-drop in the C-agr Cycle arises during an intermediate stage of a cycle of renewal, after the original subject clitic is reanalyzed as an affix, but before a reinforcing element becomes obligatory. Contrastively, no such stage exists in the analogical extension model, ergo no pro-drop.

As outlined in chapters 2 and 3, C-agr may arise through the reanalysis or grammaticalization of pronominal subjects as affixes. In phase IIa, pro-drop is licensed, but speakers may introduce an optional, emphatic pronoun or demonstrative that reintroduces interpretable features into the utterance (cf. §3.2). Within the Cycles framework, instances of

pro-drop are located at phase IIa, where the reinforcing demonstrative is optional. One such example from Bavarian is given in 4.10:

4.10. *wennst willst*
if-2SG PRO want
"if you want"
(Bayer 1984: 233)

In this particular example, the *-st* is an affix on C derived from the reanalysis of du 'you' post-C. Its status as an affix is confirmed by the progressive assimilation of the voiceless /s/, de-voicing the /d/ in the original *du* (de Haan 2010). Through the reanalysis of the pronominal clitic as an affix, and in the absence of a reinforcing/demonstrative element, PRO is not overtly realized.

The syntactic PRO position may also optionally be filled during phase IIa. In the examples below, we see that Bavarian may license pro-drop in C-agr contexts (4.12), but may also fill the subject position, as in 4.12. (Fuß 2004: 60).

4.11. *ob-st noch Minga komm-st*
whether-2SG to Munich come-2SG
"whether you come to Munich"

4.12. *ob-st DU noch Minga komm-st*
whether-2SG youSG to Munich come-2SG
"whether you come to Munich"

In the first of these examples, we see a parallel construction to Weise (1907), where C-agr licenses pro-drop. The second example is an emphatic variant of the first. It confirms two things: first, this locates the non-overt PRO in a subject position post-C. This is consistent with the reanalysis-renewal account of the reanalysis of subject clitics post-C, due to (syntactic) adjacency and prosodic factors. It is also consistent with van Gelderen's language-internal account of cyclic change (2011): motivated by loss of i-Phi features on the original pronoun, the compensatory element – here a demonstrative or emphatic pronoun – is drawn from the same lexical category as the subject pronoun it reinforces (van Gelderen 2011: 41; §2.6.2).

Second, these examples confirm that the affix *-st*, though itself a reanalyzed pronoun, does not occupy that subject position, because it is occupied by the reinforcing/emphatic element. This is evidence that reanalysis of subject-agreement marking is underway, and that this example is located at phase IIa of the C-agr cycle. Phase IIa of the cycle is observable not just in Bavarian, but also in West Frisian (4.13, 4.14), West Flemish (4.15) and attested in Wisconsin Colloquial German (4.16).

4.13. *datst moarn komme soest*

that-2SG PRO tomorrow come would

"That you would come tomorrow"

(West Frisian; de Haan 2010: 231)

4.14. *datsto (<st+do) moarn komme soest*

that-2SG-you tomorrow come would

"That you would come tomorrow"

(West Frisian; de Haan 2010: 231)

4.15. *Kpeinzen dan-k (ik) goan kommen*

I-think that-I (I) go come

"I think that I'll go tomorrow."

(West Flemish; Haegeman 1992: 60)

4.16. *Wennst willst*

If-2SG PRO would-like

"If you would like (to)."

(WHG, New Holstein, Wisconsin, 2012)

In phase IIb, pro-drop is no longer possible: the original subject is reinterpreted from clitic to affix, observable in phonological patterns of progressive/regressive voicing assimilation (de Haan 2010; §3.2.2), among other diagnostics. At the same time, the innovative marker is reanalyzed not as an optional, reinforcing element but rather as an obligatory subject position, marking the end of pro-drop in C-agr. Once the reinforcing element becomes obligatory and phase IIb begins, however, pro-drop will no longer be licensed. Phase IIb is attested in Lusern Cimbrian: It is one of the many dialects of Cimbrian in which 'Clitic Doubling' (CD) – that is, the co-occurrence of the original and reinforcing subject elements – is attested. However,

particular to Lusern[42] Cimbrian is the fact that it is not a pro-drop language: the subject position must always be realized (Castagna 2005: 111).

Differing from the systematic and predictable licensing of pro-drop in reanalysis-renewal C-agr, there is no pro-drop in Dutch dialects in which C-agr is derived through analogical extension (cf. Fuß 2008). The absence of evidence is certainly not the evidence of absence in this case, but the lack of pro-drop in East Netherlandic dialects that derive C-agr from the same process is nevertheless telling. The lack of pro-drop in this context, though, is not unexpected. While dialects of West Germanic do allow instances of topic drop and ellipsis, licensing of null elements is rare – if not prohibited (cf. Kathol 2001a). Pro-drop occurring in reanalysis-renewal C-agr contexts occurs because the subject pronoun is involved in a diachronic process of reanalysis; because the analogical-extension model does not involve the reanalysis of subject pronouns, the subject pronoun must nevertheless be overtly realized, as is the norm in many varieties of Dutch, including East Netherlandic. This does not preclude the development of pro-drop in these dialects, though it is argued here that there is no impetus for pro-drop to develop as a result of C-agr through analogical-extension.

Pro-drop may occur in some dialects, particularly in dialects of German, though Pro-drop in main clauses does not often correspond to pro-drop in C-agr contexts. Cross-linguistic data from dialects of West Germanic languages show that there is variation with respect to pro-drop, not only in terms of which C-agr varieties license pro-drop, but also in terms of the clausal asymmetry between licensing of pro-drop in those same varieties. Pro-drop resultant from C-agr is therefore an independent development of pro-drop, and not an extension of the licensing of null elements from main into subordinate clauses (cf. Axel 2007 for a contrary argument). For

[42] Lusern Cimbrian is also the only dialect of Cimbrian that allows CD in wh-questions, and to allow triple marking of subjects (Castagna 2005: 111)

example, some dialects have C-agreement but not pro-drop, such as Lucerne Cimbrian (Castagna 2005: 111); some dialects have pro-drop in main clauses but not C-agreement in subordinate clauses such as the OHG Tatian (Axel & Weiß 2011, Axel 2007); some dialects show pro-drop across the entire verbal paradigm in main clauses, but only limited C-agreement in subordinate clauses, such as Upper and Lower Bavarian (Fuß 2004, 2005, 2008); and Bavarian data allow clitic doubling, as emphatic, in second person singular C-agr contexts, but prohibit clitic doubling in first person singular. That is to say, pro-drop is obligatory in first person singular, but optional in second person singular (Fuß 2004: 61).

A second phenomenon occurring only in the C-agr Cycle is CD. CD is specific to the reanalysis-renewal model of C-agr as a strategy to reintroduce interpretable features through the use of an overt, reinforcing demonstrative/pronoun. In this analysis, CD is a compensatory development that succeeds the pro-drop phase of the cycle, and not a precondition for licensing pro-drop. This assessment is not consistent with morphology-based assessments that argue that over-specified elements in the grammar need not be overtly realized, and pro-drop is thereby licensed. There are two weaknesses of this line of argument in C-agr contexts:

(1) without a subject-agreement cycle resulting in an under-specified marking of overt subject marking features, there is no syntactic motivation for over-specification; and

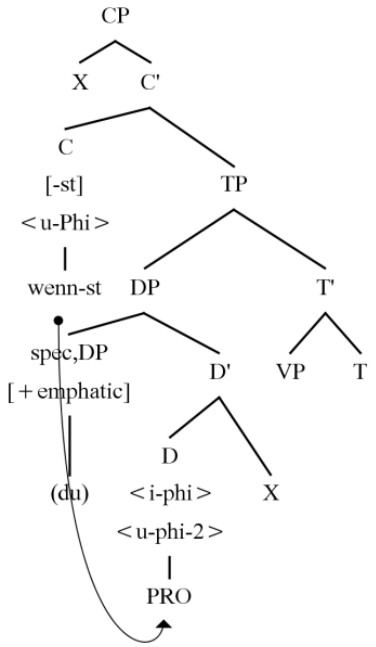
(2) following the subject-agreement cycle specific to C-agr outlined in chapters 2 and 3, the pro-drop phase precedes clitic doubling, and clitic doubling only arises as a compensatory development; the chronology therefore does not support an argument for over-specification.

This dissertation does not preclude the development of pro-drop in varieties of West Germanic through factors independent of the C-agr cycle; however, pro-drop resultant from over-specification is chronologically inconsistent with the C-agr cycle.

4.4. The syntax of pro-drop in C-agr

Fuß's (2004, 2008) account appropriately separates 'canonical' agree-on-T from C-agr. Altering Fuß's (2004) account, I argue that agreement on C is the result of the reanalysis of subject clitics post-C, and not derived through post-syntactic processes (§2.1, §2.2). As part of a cycle of renewal, clitics post-C are reanalyzed not as occupying a subject position at spec,TP, but rather as an agreement morpheme on C. This reanalysis from subject to agreement morpheme expressed here in a syntax tree corresponds to the loss of interpretable features on subject pronouns, progressing from phase I to phase II of the cycle of renewal (van Gelderen 2009; 2011). The reinforcing element optionally introduced in phase IIa of the cycle occupies spec,TP, consistent with van Gelderen's (2007:288) account, where new elements are created in specifier positions (Figure 4.2).

Figure 4.2.



This account captures phase IIa of the C-agr Cycle of Renewal in the above graphic, where 1) the original subject pronoun has been reanalyzed as an affix on C; 2) an emphatic, reinforcing element can optionally be created in a specifier position at spec,TP; and 3) the original and reinforcing subject pronouns occupy different syntactic positions.

The model of analogical extension of agr from Vfin-at-C to C-agr results in a similar structure with u-Phi features on C. However, the reanalysis occurs in the Lexicon, and realization of the affix on C is analogically extended from Vfin-at-C, following Zwart (1993, 2006). Because this analogical extension does not involve the reanalysis of subject pronouns, there is no medial phase where pro-drop is licensed, and there is no independent reason for pro-drop to develop spontaneously.

What Zwart and others argue is not for a particular syntactic derivation that resulted in a new syntactic structure, but rather an extension or 'reshaping' of the complementizer on the model of the finite verb at C. In this respect, u-Phi features are extended to C. However, because

the analogical-extension model does not involve the pronominal paradigm, there is no medial phase in the analogical-extension model during which pro-drop is licensed.

4.5. Chapter summary and conclusion

In this chapter, I have described a historical development of C-agr parallel to the development laid out in chapters 2 and 3. Differing from the subject agreement cycle described in those chapters, C-agr has also developed in some Dutch varieties, including East Netherlandic, through the analogical extension of verbal inflection to the syntactic node, C (Zwart 1993). This analogical extension, however, is not derived through syntactic derivation, and is not a direct extension of verbal inflection at a lower XP, e.g. VP; analogical extension of inflection to C in C-agr contexts is specific to verbal inflection of the finite verb at C, in main clauses. This is exhibited through instances of double marking, where dialects with differing morphological inflection at C, as compared to clause-finally, extend morphological inflection to C based on syntactic position, and not based on the inflectional patterns of a lower XP.

Also in this chapter, I have discussed how the two historically different types of C-agr differ with respect to the licensing of pro-drop, and this diachronic analysis provides an insight into pro-drop phenomena that is not otherwise apparent in synchronic approaches. Through separate processes, both the C-agr Cycle and Analogical-Extension models result in a C-agr. But because the cycles model involves the reanalysis of pronominal subject clitics post-C as affixes on C, pro-drop is licensed during a medial phase IIa of the cycle; the Analogical Extension model extends verbal inflection specific to C from verbal to clausal structures at C, without affecting overt licensing of subject pronouns. Therefore, while the agreement structures in both types of C-agr are examples of agreement licensing at C, only the cycles model licenses pro-

drop, during a medial phase of the C-agr Cycle. This provides additional evidence that it is the historical reanalysis of subject pronouns – and not a particular syntactic structure – that leads to the development of C-agr. Independent of a given licensing constraint, it is the historical development and not the agreement structure that affects licensing of pro-drop.

Additionally, I have argued here that clitic doubling, like pro-drop, is particular to the reanalysis-renewal model, and that clitic doubling is a compensatory and not prerequisite development to C-agr. This bears on both the licensing of pro-drop in C-agr contexts, here argued to precede clitic doubling, with clitic doubling arising as a compensatory – and not prerequisite – development to pro-drop.

Lastly, I have made an argument that the analysis of the historical development of C-agr phenomena is necessary in order to best understand the differences in synchronic structures, including the licensing of pro-drop. Given that the agreement structures specific to C are the same in both analogical-extension and reanalysis-renewal models, I argue that it is the subject agreement cycle involving the reanalysis of subject pronouns that leads to the licensing of pro-drop. This historical process is specific to only the reanalysis-renewal type of C-agr, and correlates with the licensing of pro-drop. Without such a historical analysis, no viable synchronic analysis of pro-drop in C-agr contexts would be possible.

Chapter 5

5.0. Dissertation summary

The primary goals of this dissertation were first to provide a comparative typology of C-agr phenomena across a broad range of modern varieties of West Germanic; and second, to better understand how the historical development of C-agr informs our synchronic analysis of modern varieties. To the former, I have surveyed and analyzed previous data on Bavarian (Bayer 1984; Fuß, 2004, 2005, 2008); Cimbrian (Castagna 2005, Schweizer 2008); West Flemish (Haegeman 1992); East Netherlandic (Zwart 1993, Goeman 1997, De Vogelaer 2010,); East Franconian (Weise 1907); and West Frisian (de Haan 2010). I have also presented data from my own fieldwork on modern Bavarian and East Franconian, conducted in 2012; and in eastern Wisconsin from 2011-2012. To the latter point, I have provided evidence through comparative analysis of modern varieties, that C-agr arises most commonly through a unidirectional, cyclical process of grammaticalization, referred to as a 'Linguistic Cycle' (van Gelderen 2011; §1.2, §2.6). In these varieties, including all attested dialects of German and West Frisian exhibiting C-agr, the agreement structure in the syntactic derivation at any given point is determined by the degree to which the C-agr cycle has progressed.

Starting in chapters 1 and 2 with the linguistic cycle outlined by van Gelderen (2011), I made two major modifications to the framework. First, following Schwenter (2006), Breitbarth (2009), and Willis (2010), I divided phase II of the three-phase Linguistic Cycle into sub-phases IIa and IIb. This division of the medial phase accounts for the extended periods of co-occurrence of the original and reinforcing elements, which would otherwise be redundant during child language acquisition, and would violate economy principles against such. Additionally, the

division of phase II into sub-phases based on the reanalysis of especially the reinforcing element is consistent with van Gelderen's account of reanalysis, which "allows us to see cross-linguistic variation as located in lexical items, not in the computation" (van Gelderen 2007: 41). The second departure from van Gelderen's framework is the notion that the linguistic cycle may be initiated by not just the reanalysis of extant lexical items' features in the Lexicon, but may also be initiated through the reanalysis of performance aspects, including hiatus effects. Drawing on data from fieldwork conducted in eastern Wisconsin – as well as data from Weise's (1907) treatment of Bavarian and East Franconian – I argue in chapters 2 and 3 that C-agr may be initiated independently of the reanalysis of the original subject pronoun. This pull-chain phenomenon certainly interacts with the push-chain effect of grammaticalization outlined by van Gelderen (2011), conspiring and not competing. Similar arguments have been raised by Breitbarth (2009) for the negative cycle.

Also in chapters 2 and 3, building on the basic Minimalist formalism and feature economy outlined by van Gelderen, and Breitbarth, I add a number of diagnostics from other linguistic disciplines beyond syntax in order to identify phases of reanalysis of both the original and innovative subject pronouns. Drawing on Zwicky & Pullum (1983), I differentiate clitics from affixes – and therefore the reanalysis from clitic to affix – through the degree of selection of these morphemes, and the relative order and morphological distribution of clitics and affixes. I additionally employ acoustic analysis to differentiate clitics from affixes, following de Haan (2010): because affixes are base-generated in the Lexicon and licensed in the syntactic derivation (Chomsky 1995, 2002), they should exhibit progressive voicing assimilation; clitics, on the other hand, are performance effects that arise only after the syntactic derivation, and therefore exhibit regressive assimilation. Data presented in chapter 3 from fieldwork in eastern Wisconsin, as well

as Weise (1907) for continental speakers, show a lack of progressive assimilation characteristic of cliticization, which contrasts clearly with modern continental varieties. Such diagnostics reinforce the linguistic cycle framework that serves as the foundation for this analysis, and adds additional, independent methods of analyzing reanalysis of pronominal subjects.

In chapter 4, I show that C-agr may also develop through a second, less common – and very different – process of analogical extension of the verbal inflectional paradigm to complementizers (cf. Zwart 1993, Kathol 2001b). Like C-agr developed through a reanalysis of pronominal subjects, C-agr resultant from analogical extension of the verbal paradigm to complementizers adheres to the same locality constraints put forth in van Koppen (2005), but differs from the C-agr cycle in meaningful ways, lacking in both innovative inflectional and pronominal morphemes, and in the ability to license pro-drop. Returning to the notion that historical developments have profound results on modern varieties, we see that the path by which C-agr develops may result in stark contrasts between the two types of C-agr, which would not be otherwise apparent from mere synchronic comparison.

Also in chapter 4, I provide an account of how syntactic extension works in C-agr contexts. Contrary to the notion that extension is a "removal of a constraint" (Harris & Campbell 1995; Harris 2003), I argue that analogical extension may result in the addition of further constraints, and an increase in complexity. A more figurative illustration would be to think of analogical extension not as the unlocking of previously locked doors in a large house, but rather as a water leak that seeps under every doorjamb and into every available crack. This vision of analogical extension is therefore heavier on the 'analogical' element, and provides not only a clearer picture of how innovations may arise, but also how they may develop and extend beyond the originally conditioned environment (cf. De Vogelaer 2010, Somers 2011).

This dissertation contributes to our understanding of C-agr through the linking of synchronic and diachronic analysis of the phenomenon, where the historical development as either an analogical or cyclical process – as well as progression through the linguistic cycle – shapes the nuances of the subject-agreement structure. Owing greatly to van Gelderen's work combining formal syntactic theory and language change through reanalysis, this dissertation's original application of the Linguistic Cycle framework to C-agr not only informs our understanding of language change through the application of the linguistic cycle to a new data set, but also infuses our understanding of how considerable variation can arise even within a single phenomenon and still be explainable in terms of its diachrony. That is to say, we do not need a single, blanket explanation for every attestation of C-agr, but we CAN analyze variation between attestations of C-agr within a specific historical context. Variation between phases of the cycle is systematic, and consistent with the linguistic cycle attested in other languages, and for other lexical categories. Thus, while there are real, identifiable differences between varieties with respect to attestations of C-agr and the licensing of C-agr, there remains an underlying coherence to the patterns.

In addition to contributing to our understanding of C-agr, this dissertation makes an implicit argument for the application of cross-disciplinary approaches to analyzing a single phenomenon. Morphological distribution and phonetic analysis provided diagnostics for the differentiation between clitic and affix, which was both in addition to and in complement to syntactic analyses of feature marking and reanalysis; and interview data provided modern records for comparison with older studies, as well as a comparative population of diasporic speakers of Heritage German. This approach provides independent confirmation (or refutation) of viable hypotheses, and both strengthens our arguments as well as increases our understanding.

Lastly, this dissertation contributes to our understanding of C-agr through a typological comparison of modern West Germanic varieties exhibiting C-agr. The comparative approach provides a better understanding of the phenomenon in general, as opposed to merely the phenomenon in a given variety. Variation between varieties provides evidence that C-agr is developing progressively in each variety. This observation alone, along with the developments exhibited in each variety, provides a broader picture of C-agr than is possible through study of a single variety. For instance, a case study of C-agr in eastern Wisconsin, or based on Weise (1907), would not conceive of later developments of clitic doubling. Similarly, analysis of only Modern Bavarian would not lead you to believe that C-agr may arise through the reanalysis of phonetically-derived hiatus effects, or through the analogous extension of the verbal inflectional paradigm to complementizers. Through a comparative approach, this dissertation has treated each instance of C-agr under a single umbrella that both respects and accounts for variation.

5.1. Further research

Moving forward from this dissertation involves both the expansion of a number of ideas put forth in the dissertation, as well as the application of these principles beyond the current data set. Such endeavors will both develop as well as test the hypotheses put forth in this work.

Among the aspects of this dissertation that warrant upcoming development are the inflection of indirect objects in the CP domain (§3.2.8), and the expansion of C-agr phenomena beyond the conditioned environment (§3.1.4). The former is particularly valuable in that such phenomena have only been rarely attested in varieties of Dutch and German, and are especially understudied in varieties of German. It is possible that, following the development of u-Phi features on C, the pull chain discussed in chapters 2 and 3 may apply not only to agreement

features on complementizers base-generated in C, but may also apply to indirect objects and wh-elements that raise to the CP domain in syntactic derivation. Preliminary analysis of such phenomena suggests a number of syntactic issues to grapple with: first, that realization of affixes must occur earlier in the syntactic derivation than the raising of the indirect object. This would provide support for a differentiation between early and late Merge (van Gelderen 2007, 2011; Chomsky 2002). Second, the inflection of indirect objects would extend C-agr further from complementizers to nominal elements, further begging the question of whether C-agr is a syntactic phenomenon local to C, or extended to other lexical categories.

As regards the expansion of C-agr beyond the conditioned environment, further study would test the model of analogical extension proposed in chapter 4. Heritage varieties of German in eastern Wisconsin show an unexpected increase in complexity relative to what is expected of a heritage language, and wide variation in grammaticality judgments among continental speakers regarding the use of innovative inflection in clause-final position shows an ongoing process of extension. The observed changes in these varieties are exciting, active processes, and fill not only descriptive gaps in the literature, but also pieces of the overall picture in terms of how syntactic change spreads.

Beyond further development of the work started in this dissertation is the expansion of these methods to other data sets. One particularly interesting starting point is the work of Sprouse & Vance (1999) on the Surselvan dialect of Rhaeto-Romansch, which is a Romance variety with C-agr. Such non-standard varieties may not be that rare, however, as Old French did possess V2 characteristics, and complementizers also developed in Romance, albeit derived from interrogatives and not from demonstratives (Harbert 2007: 416). The presence of C-agr in Romance varieties would be a parallel development to the same in West Germanic, which would

provide a comparative data set for the application of the framework outlined here. Of additional interest is not only the prospect of parallel developments, but also the possibility of ongoing contact situations, particularly between Romance varieties and varieties of Flemish and Franconian. This would test the hypotheses outlined in this dissertation, through the generalization of the C-agr cycle beyond West Germanic. It would therefore be a test of the ability of this account to be generalized.

Lastly, the study of C-agr in West Germanic can be further expanded to encompass the study of the sociolinguistic factors involved in not just the development, but also the maintenance of the phenomenon in diasporic or language island communities. The aforementioned Surselvan dialect was in contact with contemporary C-agr varieties of West Germanic during its isolation from other Romance varieties. Cimbrian dialects were similarly West Germanic varieties in close contact with Northern Italian dialects, and largely cut off from other Germanic varieties. That C-agr could arise in such language contact situations supports the notion of Trudgill (2010) that language contact can result in increased complexity, and would also lend credence to the typological approach of proponents of grammaticalization (e.g. Jespersen 1917, van Gelderen 2011), and the reanalysis model outlined in §2.6.1. As regards heritage varieties or language islands, in addition to expanded study of C-agr in Wisconsin, C-agr has been attested in East Franconian communities in Haysville, Indiana (Nützel 2009), as well as among the 'Transylvania Saxons' (Böttger 1904). The inclusion of more sociolinguistic methods to study language contact situations and language islands could add social context to the largely typological, diachronic approach of this dissertation.

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Appendix A – Fieldwork Elicitation Materials, Germany

Grammaticality Judgements

Ich lese Ihnen einige Sätze vor, und sagen Sie mir bitte, ob Sie das in Ihrem Dialekt sagen würden. Wenn nicht, sagen Sie bitte wie Sie es anders sagen würden. Geben Sie auch eine Nummer von 1 bis 5, worünter 1 bedeutet „Ja, das klingt mir ganz normal“ und 5 bedeutet „Nein, das würde ich niemals sagen“.

Kummst noch Minga, dann muaßt me b’suacha.

Sag‘s mir, wennst noch Minga kummst

Sag‘s mir, wennst DU noch Minga kummst

Wenn ich Zeit hab, komm noch Minga.

Wenn ihr Zeit habt, kommts noch Minga.

Er wußte nicht ob lachen oder weinen

Sie gab es mir um mich zu erfreuen

Wer glaubst du liebt Emma?

Wer glaubst du daß Emma liebt?

Wen glaubst du daß Emma liebt?

Wer moanst du mog d’Emma?

Wer moanst du daß d’Emma mog?

Weam moanst du daß d’Emma mog?

Fom-ma noch Minga?

Fom-ma MIA noch Minga?

Mia gem-ma hoam.

Mia gem-ma MIA hoam.

Er woas ned, dass-ma (mia) koi Geid ned ha-ma.

Wem-ma (mia) des ned dou-ma, ha-ma koi Geid.

De Hans is gresser als wia-st du bist

De Hans is gresser als wia du bist

De Hans is gresser als wia-st du

Du sollst song an wäichan Schua-st du wuist.

Wia oit-ts ës seits ischt mir Wurscht!

Wia schnäi-ts ihr fahrts!

Du fährst zu schnell, wenns auch regnet!

„I woas ned“

Ich stelle Ihnen einige Fragen. Bitte diese Fragen beantworten.

<u>Ja/nein Fragen</u>

Haben wir Milch?

Gibt es noch Kaffee?

Muß ich heute Abend arbeiten?

Hat er eine Schwester?

Hat sie auch einen Bruder?

Müssen Sie morgen in die Stadt (gehen)?

Sollten meine Frau und ich hier wohnen bleiben?

Wann

Wann fängt das Konzert an?

Wann fährt der Zug ab?

Wann essen Sie normalerweise?

Wann sind sie geheiratet (ge)worden?

Wann mußt sie an die Arbeit?

Wann komme ich in München an?

Wo

Wo ist sie geboren?

Wo ist er aufgewachsen?

Wo stamme ich her?

Wo wohnen wir zwei?

Wo trinken sie gern Bier?

Da/wo-compounds

Wobei kann ich Ihnen helfen?

Wofür interessiert er sich?

Worauf steht denn diese Eichkatze?

Mit wem habe ich gerade gesprochen?

Mit wem habt ihr als Kind auf dem Spielplatz gespielt?

Woraus stammt er?

Warum...

Warum gibt es denn keinen Kaffee mehr?!

Warum müssen wir eben so früh ins Bett?

Warum wohnen die Eltern immer noch in Berlin!?

Warum sind wir noch am Arbeiten?

Warum ist sie noch nicht geheiratet?

Warum studiert er noch an der Uni?

Conditionals

Bilden Sie einen Satz aus den gegebenen Sätzen.

Zum Beispiel: Zeit haben / ihnen helfen: Wenn wir genug Zeit haben, helfen wir Ihnen.

Zeit haben / Ihnen helfen

Zeit haben / mir helfen

Geld haben / ins Kino gehen

nicht müde sein / Karten spielen

aufstehen können / um 8.00 frühstücken

den Zug erreichen / pünktlich ankommen

einen Rasierer kaufen / mich das Gesicht rasieren

Picture Story

“the fortune teller” – for use of conditionals / future

http://totemfieldstoryboards.org/stories/fortune_teller/

Grammaticality Judgments

I will read you a few sentences out loud, and please tell me whether you would say this in your dialect. If not, then please say how you would say it in another way.

Please give also a number from 1 to 5, where 1 means “Yes, that sounds entirely normal” and 5 means “No, I would never say that”.

If you come to Munich, then you must visit me.

Tell me if you come to Munich.

If I have time, I’ll come to Munich.

If you guys have time, come to Munich.

He doesn’t know whether to laugh or cry.

She gave it to me to make me happy.

Who do you think loves Emma?

Who do you think that Emma loves?

Who do you think that Emma loves?

Who do you think likes Emma?

Who do you think that likes Emma?

Who do you think that Emma likes?

Are we driving to Munich?

Are we driving to Munich?

We are going home.

We are going home.

He doesn’t know that we didn’t have any money.

If we don't do that, then we won't have any money.

Hans is bigger than you are.

Hans is bigger than you are.

Hans is bigger than you

You should say who you're looking for.

Whoever it is doesn't matter to me!

How quickly you drive!

You drive too fast, even when it rains!

"I don't know"

I'll ask you some questions. Please answer them.

Yes/No questions

Do we have any Milk?

Is there coffee yet?

Do I have to work these evening?

Does he have a sister?

Does she also have a brother?

Do we have to go into the city tomorrow?

Should my wife and I remain living here?

When

When does the concert begin?

When does the train depart?

When do you normally eat?

When did you get married?

When does she have to get to work?

When do I arrive in Munich?

Where

Where was she born?

Where did he grow up?

Where do I come from, originally?

Where do the two of us live?

Where do they like to drink beer?

da/wo compounds

What can I help you with?

What is he interested in?

What is that squirrel standing on?

Who did I just speak to?

Who did you guys play with as children on the playground?

Where does he come from?

Why...

Why isn’t there any more coffee?

Why do we have to go to bed so early?

Why do the parents still live in Berlin?

Why are we still working?

Why isn't she married yet?

Why is he still studying at the university?

Conditionals

Build a sentence out of the given clauses.

For example: to have time / to help you: If we have enough time, we will help you.

to have time / to help you

to have time / help me

to have money / to go to the movies

not be tired / play cards

to be able to get out of bed / eat breakfast at 8:00am

to catch the train / to arrive early

to buy a razer / to shave my face

Picture Story

"The fortune teller" – for use of conditionals/future

http://totemfieldstoryboards.org/stories/fortune_teller/

Appendix B – Fieldwork Elicitation Materials, eastern Wisconsin

Please translate the following English sentences into "your German", that is, the way that you would say this in the German you speak in your community, and with your friends and family.

There are 10 books on the table.

Those are the ones that were given to me.

We read two books.

I haven't read any of them.

Which book did you sell without reading?

This is the book that people who read really like.

Look, there's the man I talked to yesterday.

He's the man whose son was just here.

No, not the man you gave the money to!

Is that the girl he kissed without looking at?

We don't have any time right now.

Who did Bill say that we should call?

What did Mary say that we should do this evening?

He seems to laugh and cry at the same time.

They're the children whose mother is so sick.

Sheboygan is a city that people like when they visit.

We do it the same way we used to.

That may not bother you, but it does me.

I haven't seen THAT movie yet.

I haven’t read THAT one yet.

This is a food that you have to cook before eating.

Smoke might have bothered Fred, but it didn’t.

She read something, but she won’t say what.

If you go to the store, buy me some chocolates.

Do you know whether we have any milk?

Some talked to Sam and others to Billy.

He told me that we need a new roof.

We slept because we were tired.

I filled the dog's bowl with water.

She read something and he did too.

He believes that we are to blame!

Ask him whether the neighbors are staying for dinner.

Joe reads books that no one else would.

If we have time, then we’ll stay for dinner.

The neighbor's father came here a long time ago.

She’ll read something to Sam, but she won’t to Billy.

She thinks that you are a good kisser.

If you guys are able, can you help me pick vegetables?

Joe will eat cookies on Tuesday, but he won’t sauerkraut.

We ate because we were hungry.

Your brother said that you stole the cookie!

That’s my neighbor, whose father came here a long time ago.

Do you know whether she’s married?

Joe eats cookies on Mondays because Alyson does.

She said to call if Fred gets sick again.

Paul visited every town Eric did.

She called Ben an idiot but I don’t know who else.

She said that her brother is getting married this summer.

Some want to drink tea, and other coffee.

She deliberately, and he accidentally, read something.

Mary has read more book than Bill has.

We took a trip last summer to my wife's hometown.