Null Subjects and Distinct Agreement in Modern Germanic

Henrik Rosenkvist[1]
University of Gothenburg

Abstract
A number of modern Germanic vernaculars (non-standard languages and dialects) allow 1st and 2nd person null subjects, but not 3rd person. In this chapter, the person asymmetri, and the relation between these null subjects and agreement on finite verbs (and subordinators) are discussed. It is argued that it is not necessary to assume a specific Speech Act-feature in order to explain why 3rd person null subjects are disallowed. The crucial factor is in stead assumed to be Distinct Agreement, i.e. the agreeing element must (uniquely) express the same φ-features and values for these features as the corresponding overt pronoun in order to allow a null subject, including not only number and person, but also – crucially – gender.

1. Introduction

In most of the world´s languages, referential subjects may in general be omitted (Gilligan 1987). Rizzi (1982, 1986) suggested that in null subject languages (NSLs), the subject role is fulfilled by a null pronoun (*pro*), which must be licensed and identified. Licensing decides which syntactic configurations allow *pro* and identification recreates the semantic content of the omitted subject, typically by "strong" or "rich" verb agreement (cf. Vikner 1995, 1997, Rohrbacher 1999), the idea being that the content of a null subject can only be reconstructed if the specific person/number-combination of the subject is reflected by agreement on the finite verb (or elsewhere in the clause).

1 This research has been financed by the Swedish Foundation for Humanities and Social Sciences, via the three-year research project Germanic Referential Null Subjects. I thank three anonymous reviewers for valuable comments and suggestions, which have lead to several improvements of the text. Remaining inconsequences are only due to my own shortcomings.

A significant factor for the identification of null subjects is thus agreement (Taraldsen 1978, Jaeggli & Safir 1989:26ff).[2] Borer (1986) suggests that agreeing affixes may actually function as subjects *per se*, being 'I-subjects'. This proposal has become a standard analysis: "Indeed, the possibility of null subjects in a given language has been generally attributed to the pronominal character of its agreement morphology" (Frascarelli 2007:692). More recently, proposals in the same vein have been made by Platzack (2004), Koeneman (2006), Barbosa (2009), Roberts (2010), and Sigurðsson (2011).

Languages with "weak" or no verb agreement that nonetheless allow null subjects, such as Mandarin (Huang 1984), constitute a problem for Rizzi´s hypothesis. Jaeggli & Safir (1989:36ff) discuss the possibility that *pro* in such languages is controlled by a clause-external antecedent and is interpreted by feature inheritance, following Huang (1984) and Borer (1986). Modern versions of this idea have been put forth by for example Frascarelli (2007), Cole (2009, 2010) and Sigurðsson (2011).

Throughout the scholarly debate concerning null subjects, however, the Germanic languages have for long been notoriously absent (but see Rosenkvist 2009, 2010, Bohnacker 2013, and Camacho 2013:139ff). Indeed, it has been claimed that the V2-parameter, that characterize the Germanic languages (but not English), is incompatible with null subjects (cf. Jaeggli & Safir 1989:33, Rohrbacher 1999:251ff), a statement which rests on the observation that no standard Germanic language allows thematic null subjects. While this is true, it is also true that a number of modern Germanic vernaculars do allow thematic null subjects.

In this paper, the topic is thematic null subjects in Bavarian, Zürich German, Swabian, Frisian, Övdalian and Yiddish. These language varieties have an unclear status. Traditionally, they have all been considered dialects of the respective standard languages (German, Dutch, and Swedish), but recently Frisian and Yiddish have been officially recognized as languages. On the other

2 Roberts & Holmberg (2010:3) underlines that this is a venerable generalization that goes back at least to Apollonius Dyscolus, a 2nd century grammarian at the library in Alexandria.

hand, Bavarian, Zürich German and Swabian are still classified as dialects, although the number of speakers, the sociolinguistic situation (including increasing usage on all levels of communication, and emerging standardization) and a number of linguistic features rather seem to call for the label *language* in these cases (although Zürich German of course would be a dialect of Swiss German). Övdalian is also still considered a dialect of Swedish, even if it is linguistically very different from Swedish (or any other Mainland Scandinavian variety).[3] More detailed linguistic introductions to Frisian, Swabian, Bavarian and Swiss German can be found in Russ (1989), while Jacobs (2005) provides a linguistic description of Yiddish, and Johannessen & Garbacz (2015) give a linguistic background to Övdalian.

The data that are presented and discussed in this chapter have to a large extent been gathered from previous works, such as for instance Weiß (1998) for Bavarian, and Werner (1999) for Zürich German. However, small questionnaire studies have been performed with speakers of North Frisian, Swabian and Zürich German (during the period 2011–2012), and the data concerning Övdalian have mainly been drawn from quite extensive field work (interviews and questionnaire studies), transcriptions of older recordings etc. conducted during the period 2005–2012. As for Yiddish, I have made a small corpus study (cf. Rosenkvist 2012), complementing earlier works such as Prince (1998) and Geller (1999).

In the following section, the thematic null subjects in these vernaculars and their relation to agreement are discussed (in section 2), while the following section (3) concerns thematic null 1sg subjects in Swabian and Zürich German. Null subjects in an embedded clause is the topic of section 4. In section 5, it is argued that a pure morphological condition (the notion of Distinct Agreement) is sufficient to explain the identification of thematic null subjects in modern Germanic, making the hypothesis that a Speech Act Participant-feature

3 As pointed out by an anonymous reviewer, it is of course complicated to separate languages from dialects on pure linguistic grounds. Not taking a stand in this issue, I sometimes use the term *language variety* in this text.

participates in the licensing of thematic null subjects (as suggested by e.g. Sigurðsson 2011) a superfluous assumption. Section 6 concludes the paper.

2. Null subjects in modern Germanic – the basic facts

In all of the six vernaculars that were presented in the previous section, null thematic subjects occur. However, the presence of thematic null subjects in Yiddish is adamantly denied by Speas (2006:60): "Yiddish does not allow null referential pronouns", and in the same volume Koeneman (2006:86) makes a similar statement. Still, according to Prince (1998:83), traditional Yiddish grammarians acknowledge that "du, the second person singular pronoun is deletable" and in his Yiddish grammar, Jacobs (2005:261) provides two examples of thematic null subjects in Yiddish (both of them are null instances of *du*). In addition, Geller (1999:74) actually states that omission of Yiddish *du* is obligatory in some cases. The contradicting statements indicate very clearly, I think, that studies of non-standard Germanic syntax (and in particular Yiddish syntax) have had rather low impact, and that the syntactic properties of non-standard Germanic are accordingly still relatively unknown for many linguists.

Example sentences with thematic null subjects from the respective vernaculars, plus an example from Central Bavarian (a variety of Bavarian – see further below), are provided in (1)–(7). In examples (2) and (5), also agreeing complementizers are illustrated. This is a common morphosyntactic feature in several modern Germanic vernaculars that is further discussed in subsection 4.3.

(1) I glaub moang bisd wieda gsund. (Bavarian; Axel & Weiß 2011:36)
I think tomorrow are-2sg again healthy
'I think that **you** will be well again tomorrow'

(2) ...wama bmaid hama. (Central Bavarian; Axel & Weiß 2011:34)
because-1pl thought have-1pl
'because **we** have been thinking'

(3) Ha der das nöd scho verzellt? (Zürich German; Cooper & Engdahl 1989:33)
have-1sg to-you it not already told

‘Haven’t **I** told you that already?’

(4) Vielleicht merksch plötzlich nix mee. (Swabian; Bohnacker 2013:10)
maybe notice-2SG suddenly nothing more
‘Maybe **you** suddenly will not feel anything anymore.’

(5) Ik tink datst my helpe moatst. (West Frisian; de Haan 1994:81)
I think that-2sg me help must-2sg
‘I think that **you** must help me’

(6) Trink nit di kave, vorem vest nit kenen slofn. (Yiddish; Jacobs 2005:261)
drink not the coffee because get-2sg not no sleep
‘Don’t drink the coffee, because **you** won’t be able to sleep’

(7) Nų witið byddjum i Övdalim. (Övdalian)
now know-2pl live-1pl in Älvdalen
‘Now **you** know that that **we** live in Älvdalen’

As is evident from the example sentences above, only 1p and 2p thematic null subjects are attested in the modern Germanic vernaculars (cf. Rosenkvist 2009, 2010:256ff; cf. also Table 1).

However, Bohnacker (2013:23ff) notes that in her recordings of spontaneous Swabian, also 3sg null subjects seem to occur. These null subjects only appear directly after the finite verb *isch* (‘is’) or the complementizer *daß* (‘that’). Considering that the form of the 3sg neuter subject is *es*, it is plausible that *es* becomes null in these positions due to a phonological process, unlike the other possible null subjects: “What we can say is that the omission of 3SGNEU subjects is qualitatively very different from the omission of 2SG and 1SG subjects [...]” (Bohnacker 2013:26). Interestingly, Bohnacker also notes that while older speakers of Swabian delete *es* after *isch* and *daß* very often (91% of the cases), younger speakers tend to pronounce *es* also in these positions, only using silent *es* in 12,5% of the cases. This indicates that younger speakers of Swabian use a more orthoepic pronunciation, perhaps being influenced by written standard German. But given that only six informants participated in the study, Bohnacker underlines (2013:26) that “the pattern observed may simply be due to individual preference and variation”. Following Bohnacker (2013), I will

assume that the Swabian 3sg null subjects indeed are solely phonologically conditioned (viz., this is a post-syntactic phenomenon), and therefore I do not discuss these null subjects further in this work.

In stark contrast with Old Germanic (cf. Rosenkvist 2009, Walkden 2012, 2013), there is an evident relation between thematic null subjects and verb agreement in the modern Germanic vernaculars. In table 1 (cf. Rosenkvist 2009, 2010:257), the verb agreement patterns in seven different vernaculars (including Central Bavarian) are presented. Only the verb forms that are set in bold in the table allow thematic null subjects.[4]

Table 1. Verb agreement and thematic null subjects in seven modern Germanic vernaculars.

num.	per	Bav.	CBav.	ZG	Swab.	Fris.	Övd.	Yidd.
sg.	1	kumm	kumm	**chume**	**komm**	kom	kumb	kum
	2	**kummst**	**kummst**	**chunnsch**	**kommsch**	**komst**		**kumst**
	3	kummt	kummt	chunnt	kommt	komt		kumt
pl.	1	kumman	**kumma/** kumman	chömed	kommet	komme	**kumum**	kumn
	2	**kummts**	**kummts**				**kumið**	kumt
	3	kumman	kumman				kumå	kumn
infinitive		kemma	kemma	chu	komma	kommen		
possible null subjects		2sg, 2pl	2sg, 1pl, 2pl	1sg, 2sg	1sg, 2sg	2sg	1pl, 2pl	2sg

4 The data in table 1 are taken from the following sources: Bayer (1984) and Weiß (1998): Bavarian and Central Bavarian; Cooper (1994) and Werner (1999): Zürich German; Haag-Merz (1996) and Bohnacker (2013): Swabian; Hoekstra & Marácz (1989), de Haan (1994), and Hoekstra (1997): Frisian; Levander (1909), Garbacz (2010), and Rosenkvist (2010): Övdalian; Prince (1998), Geller (1999), and Jacobs (2005): Yiddish.

The agreement patterns in table 1 and their relation to the possibility of thematic null subjects show very clearly that agreement is a key factor for licensing thematic null subjects in modern Germanic.[5] In particular, the contrast between Bavarian and Central Bavarian is telling – 1pl cannot be null in Bavarian, while this is possible in Central Bavarian if the 1pl verb form is the distinct *-ma* (Axel & Weiß 2011:30ff). This form appears only in C. In verb final clauses, the form for 1pl in Central Bavarian is *-an* (coinciding with the form for 3pl), and in such clauses the 1pl subject must be overt (unless the suffix *-ma* appears on the complementizer – see section 4.2 below).

As shown in Table 1, Swabian and Zürich German allow null 1sg subjects, although the Swabian verb agreement for 1sg lacks a specific agreeing affix. However, it seems that null 1sg subjects in these two vernaculars are results of phonological processes, and hence are not triggered by morphosyntactical features. This is the topic of the following section.

3. Null 1sg subjects in Swabian and Zürich German

3.1. Null 1sg subjects in Swabian

According to Haag-Merz (1996:162ff), null 1sg subjects are restricted to positions immediately before clitics in Swabian, positions where the subject pronoun alternatively may appear not as a full pronoun (*i*), but as a clitic (*e*) (as illustrated in example 8).[6]

5 The forms for 1sg all lack specific agreeing affixes (except Zürich German), and can thus be seen as underspecified; they also coincide with imperative forms. Both of these reason may explain why they in general do not allow null 1sg subjects. Null 1sg subjects in Zürich German and Swabian are further discussed in section 3.

6 Haag-Merz (1996:155) underlines, however, that her syntactic intuitions do not always coincide completely with other speakers' and researchers' intuitions.

(8) Geschtern han-(e)-mr en Bobbel Eis kauft. (Swabian; Haag-Merz 1996:162)
yesterday have-1sg-(I)-me-CL a ball ice cream bought
'Yesterday I bought myself a ball of ice cream'

Haag-Merz (1996:162f) also points out that if the clitic element following the 1sg subject clitic is vowel-initial or syllabic (such as *(e)m*, the 3sgm dative clitic), then the subject clitic *must* be null, in order to avoid hiatus. On the other hand, the accusative clitics *s* ('it') and *se* ('her') require the preceding 1sg subject to be overt. The proposed contrasts are demonstrated in (9) and (10).

(9) Geschtern han-(*e)-m a bißle gholfe. (Swabian; Haag-Merz 1996:162)
yesterday have-1sg-(I)-him-CL a little helped
'Yesterday, I helped him a little'

(10) Geschtern han-*(e-)-s ufgmacht. (Swabian; Haag-Merz 1996:162)
yesterday have-1sg-(I)-it-CL opened
'I opened it yesterday'

Haag-Merz (1996:167) concludes that the possible omission of 1sg subject clitics is phonologically conditioned: "Zusammenfassend kann man fasthalten, daß ich-drop phonologisch bedingt ist und nur im Cluster auftreten kann".

In a recent corpus study, Bohnacker (2013:21ff) scrutinizes the claims made by Haag-Merz (1996). First, she underlines that in her material, 1sg null subjects are exceedingly rare – no more than 1,3% of the possible 1sg subjects are null (in marked contrast with 2sg, where 61% appear as null subjects). Furthermore, the claim that hiatus controls the distribution of the clitic null subjects is not vindicated by Bohnacker's study; rather, she finds that clitics can be null in contexts where hiatus is irrelevant, and, conversely, that 1sg subject clitics are overt in many cases where they actually do cause hiatus.

Two of the null 1sg subjects clitics in Bohnacker's study also appear without following pronominal clitics (see example 11).[7]

(11) un jetz in dem neua hen-se-s au glaub gändert (Swabian; Bohnacker 2013:276)
and now in the new have-3PL-they-it also think.1SG changed
'And now in the new one **I** think they've changed it though.'

To conclude, the data presented by Bohnacker (2013) indicate that some of the claims made by Haag-Merz (1996) may be misleading, and she underlines that hiatus is not an essential licensing factor for the speakers in her study:

> This finding suggests that Haag-Merz's condition that 1SG subjects must be dropped for phonological reasons to avoid vowel-vowel hiatus does not hold for the six informants here. (Bohnacker 2013:279)

The results from a small questionnaire study, involving six younger (below 30 years of age) speakers of Swabian and comprising 52 test sentences, also call for a re-evaluation of some of the data concerning thematic null subjects in Swabian that Haag-Merz (1996) presented.[8] The informants were asked to grade the test sentences on a 1–5 scale, with 5 as the highest grade, corresponding to the judgment "in full accordance with general language use (this is what you normally say)". When testing the sentences in (9) and (10), the informants' responses do not correlate entirely with the claims made by Haag-Merz (1996), as shown in (12) and (13).[9]

7 Bohnacker (2013) notes that examples with *glaub* may not be relevant, since "the use of *glaub* with null subject is near-formulaic" (2013:277).

8 The questionnaire study was carried out in Freiburg during October 2011, with the generous aid of prof. Guido Seiler.

9 As pointed out by an anonymous reviewer, younger speakers may of course have other grammatical intutions than older ones – this may explain some of the differences between the studies that are discussed in section 3.

(12) a. Geschtern han-m a bißle gholfe.
test score: 5, 2, 5, 3, 2, 5 mean value: 3,7
according to Haag-Merz (1996): OK

b. Geschtern han-e-m a bißle gholfe.
test scores: 4, 5, 3, 5, 5, 5 mean value: 4,5
according to Haag-Merz (1996): *

According to Haag-Merz (1996:161ff), 1sg clitics cannot be overt in positions before a following vowel-initial or syllabic clitic (as in 12b). However, the informants considered this to be fully acceptable, with the exception of one informant. Furthermore, the sentence with a null 1sg subject (12a) actually received lower grades. The informants' grammaticality judgments do not support the claims made by Haag-Merz (1996) concerning this particular matter.

As for the other suggested generalization – that 1sg subjects must be overt if they are followed by the accusative clitics *s* ('it') or *se* ('her') – the results partially corroborate the hypothesis issued by Haag-Merz (1996). Half of the informants considered a 1sg null subject to be illicit in this position (cf. 13a), while the remaining three accepted a 1sg null subject.[10] The contrasting sentence, with an overt subject clitic (cf. 13b), received high scores throughout.

(13) a. Geschtern han-s ufgmacht.
test score: 4, 4, 1, 4, 1, 1 mean value: 2,5
according to Haag-Merz (1996): *

b. Geschtern han-e-s ufgmacht.
test scores: 5, 5, 5, 5, 4, 5 mean value: 4,5
according to Haag-Merz (1996): OK

10 As pointed out by an anonymous reviewer, the informants' responses my indicate that there are two grammars involved in the judgement of (12a) and (13a), as well as in some other test sentences, such as (27b).

The obligation that a clitic must follow null 1sg subjects in Swabian was confirmed in the questionnaire study.

As was mentioned above, Bohnacker (2013:21) presents two cases in her corpus study where null 1sg subjects appear without juxtaposed clitics. However, both of these examples occur after the verb *glaub* ('believe-1sg'), a verb which Bohnacker assumes has a special function in Swabian:

> Like *woisch* [wish-2sg], *glaub* is polyfunctional. It can serve as a matrix clause taking a sentential complement (*I believe that X*), but in such contexts the informants use overt subjects. They do not employ *glaub* + Ø as a matrix clause but rather like a discourse marker, a parenthetical *I think* comment and hedge on the proposition of a clause [...] (Bohnacker 2013:277)

The bare *glaub* is inserted in the middle field of a sentence, in general, and should be seen as a parenthetical expression, more reminding about a speaker-oriented sentential adverbial than a proper clause (cf. English *He has, I think, already arrived*). Interestingly, out of the 13 examples of null 1sg subjects in Bohnacker's study, no less than seven appear in this type of fixed *glaub*-construction.[11]

To conclude, Swabian 1sg null subjects are very infrequent, and speakers in some cases disagree concerning the phonological licensing contexts. With the exception of the construction with the near-formulaic *glaub* ('believe-1sg'), however, 1sg null subjects in Swabian only appear in syntactic positions where the unpronounced subject would have been realized as a clitic, i.e. immediately preceding another clitic. The Swabian 1sg null subject is accordingly a null clitic pronoun, the contemporary usage of which is partially obscure; the phonological prerequisites that was suggested by Haag-Merz (1996) do not hold for all speakers.

One way of explaining the attested current variation among speakers is to assume that Swabian is changing; hypothesizing that 1sg null subjects were

11 Cf. also Viesel (2011) for a discussion about similar uses of *glaub*.

more common in older Swabian, Bohnacker (2013:23) calls for diachronic studies of Swabian 1sg null subjects.

3.2. Null 1sg subjects in Zürich German

In her study of Zürich German syntax, Cooper (1994:99–101) presents a handful of examples of thematic null 1sg subjects – one of them is presented below (14).

(14) Ha der das nöd scho verzellt? (Zürich German; Cooper 1994:99)
have-1sg to-you it not already told
'Haven't **I** told you this already?'

Like in Swabian, the 1sg null subject in Zürich German can only appear in positions directly preceding a pronominal clitic – other types of lexical items, such as the strong pronoun *dir* ('you'), are disallowed. Accordingly, just as in Swabian, the 1sg thematic null subject in Zürich German requires a position immediately preceding another clitic (a cliticized pronominal object). If the 1sg subject were to be pronounced in this position, it would appear as enclitic *i* or *e* (the full form is *ich* – cf. Cooper 1994:103, Werner 1999:46).

There is one exception to this pattern, however: a position in front of the masculine determiner *em*, which is homonymous with a dative masculine clitic, is also possible (Cooper & Engdahl 1989:39, Cooper 1994:100).

(15) ...wil em Brüeder alli Artikel schicke.
because to-the brother all articles send-1sg
'because **I** send my brother all the articles'

As shown by Werner (1999:50, 128), also the feminine determiner *der*, which is homophonous with the object clitic *der*, allows thematic null 1sg subjects.

(16) Das ha der Iris scho geschter gsäit. (Werner 1999:50, 128)
das habe der Iris schon gestern gesagt
'**I** have already told Iris that yesterday'

Werner (1999:49) also claims that 1sg subjects *must* be null if followed by an object clitic; but when they precede an unstressed syllable beginning with [e], 1sg subjects *cannot* be null (as shown by 17).

(17) Das han *ø/i erwartet. (Werner 1999:49)
that have-1sg I/I expected
'I have expected that'

Having noted the phonological criteria for 1sg null subjects, both Cooper (1994:110f) and Werner (1999:132f) conclude that in Zürich German, the phenomenon of unpronounced 1sg subject pronoun is not a property of syntax, but rather a lexical or phonological feature.

Cooper (1994:110) suggests that 1sg (and 2sg) null clitics are the consequence of a lexical deficiency (cf. Fuß 2011, Weiß forthcoming for a comprehensive discussion about the relation between clitics and null subjects in Bavarian, and in other languages).

> This implies that ZH [i.e., Zürich German] null subjects occur in place of clitics rather than in place of full pronouns, i.e. they alternate with clitics if clitics are available. (Cooper 1994:110)

> The assumption of silent clitics also suggests that, at least in Zurich German, we are dealing with a lexical idiosyncrasy rather than a syntactic property. (Cooper 1994:110)

On the other hand, pointing out that Cooper's arguments against a phonological explanation are untenable, and that there actually is a 2sg subject clitic in Zürich German (*d* or *t*), Werner (1999:133) concludes that the notion of null clitics in Zürich German is redundant, and that it is regular phonological processes at work in Zürich German that cause some 1sg (and 2sg) subject clitics to delete.

> Für das Ausslassen der 1. und 2.Sg. wurde eine rein phonologische Lösung vorgeschlagen, die damit begründet wurde, daß es sich um allgemeingültige noch produktive phonologische Regeln handelt [...] (Werner 1999:133)

The idea is that the 1sg and 2sg clitics (*i* and *t*) has merged with their respective finite verbs during the historical development of Zürich German (cf. Cooper 1994:109ff, and Fuß 2005 for a detailed discussion about this process), as illustrated in examples 18 and 19.

(18) chume ich > chume i > chume e > chume

(19) chunnscht du > chunnscht te > chunnschte > chunnscht (Werner 1999:130)

One may note that the resulting verb actually is identical with the original form, in both of the cases. A prerequisite for the fusions to occur is of course that the subjects are not topicalized, but appear immediately juxtaposed to the finite verb, in (or near) SpecTP, where they initially may appear as enclitic subjects. Werner (1999:130) furthermore argues that the lexical form of the 2sg verb is *chunnscht*, to be compared with *chunnsch* in table 1. The final *-t* disappears in regular speech, she argues, but is realized when the verb is stressed; the loss of final *-t* after the sibilant [ʃ] is a general phonetic rule in Zürich German.

To sum up so far, Werner (1999) claims that absolute phonological rules determine whether 1sg (and 2sg) subjects appear as overt clitics or as null subjects in Zürich German. Schematically, her proposals regarding 1sg subjects can be illustrated as in (20), where Ø represents a null subject.

(20) a. clitic 1sg *i*/*e* – object clitic → obligatory Ø – object clitic

b. clitic 1sg *i*/*e* – unstressed *e*- → *Ø – unstressed *e*-

In a small questionnaire study, comprising eight younger speakers of Zürich German,[12] some of Werner's (1999:49–50) example sentences with 1sg subjects were tested. The features in focus were the necessity of a pre-clitic position, the assumed impossibility to delete the 1sg subject in front of unstressed *e*-, and the

12 The study was conducted in Zürich during May 2012, with the kind help of prof. Elvira Glaser and Anja Hasse.

requirement that 1sg subjects be omitted when followed by an object clitic or the determiner *em*. The tested speakers expressed the same grammatical intuitions as Werner (1999) in these cases. The speakers' judgments also vindicated the assumptions put forth by Werner (1999) regarding null 1sg subjects in front of unstressed *e*-. Seven of the speakers considered a null 1sg subject impossible in a context where it would be followed by an unstressed *e*-, while one speaker found the test sentence to be dubious.

But as for the third generalization, all of the speakers find a sentence with an overt subject in front of *em* perfectly grammatical (cf. 21a), which is surprising, given Werner's proposal (1999:49–50). With an omitted subject, half of the speakers assign the sentence the lowest grade, while the rest consider it to be good or at least acceptable (see 21b).

(21) a. Das han i em Paul scho geschter gsäit.
that have-1sg I the Paul already yesterday said
'I told Paul that yesterday already.'
test score: 5, 5, 5, 5, 5, 5, 5, 5 mean value: 5

b. Das han em Paul scho geschter gsäit.
that have-1sg I the Paul already yesterday said
'**I** told Paul that yesterday already.'
test score: 1, 1, 5, 4, 3, 1, 5, 1 mean value: 2,6

In this respect, the tested speakers express a grammatical intuition that is the reverse of Werner's. One should note, however, that both of Werner's rules for the distribution of null 1sg subjects (see 24) apply whenever a null 1sg subject precedes the clitic *em*; as an object clitic *em* requires the 1sg subject to be null, whereas its phonetic structure, it being *e*-initial, requires an overt 1sg subject. This apparent contradiction may confuse some speakers. In (25), *em* functions as a determiner, not as an object clitic, and it is therefore plausible that some speakers apply the rule in (24a), assuming that the determiner *em* has the same morphosyntactic status as the homonymous clitic *em*, while others follow the

phonetic principle illustrated in (24b). Only further studies of Zürich German 1sg null and clitic subjects can determine whether these suggestions are correct.

3.3. Null 1sg subjects in modern Germanic – a conclusion

In the modern Germanic vernaculars, null 1sg subjects are attested in the Alemannic varieties Swabian and Zürich German. As asserted by Cooper (1994), Haag-Merz (1996), and Werner (1999), these thematic null subjects are furthermore null clitics, not full pronouns – and two questionnaire studies point to the same conclusion. As clitics, the distribution of these null subjects is restrained by morphophonological criteria: they are only possible when followed by another clitic element. In main clauses, the 1sg null clitic appears directly following the finite verb, while it follows the complementizer in embedded clauses (see section 4.2).

The alternation between overt and null 1sg subjects in Alemannic is accordingly determined not only by agreement on the finite verb, but also by the clausal context. In contemporary theorizing about null subjects (cf. the discussion in section 4.1), null subjects are often assumed to be manifested as pronominal affixes, or to be linked to antecedents in the discourse, and both of these mechanisms are understood as being encoded in syntax. The Alemannic null 1sg subjects obviously require additional explanatory models, as noted by Cooper (1994:100).

> It is obvious that the assumption of a lexically or syntactically triggered phenomenon of null first singular subjects in the context of certain phonologically conditioned elements [...] is a problem for a theory which orders phonological processes after lexical and syntactic ones. (Cooper 1994:100)

However, while Cooper (1994), Haag-Merz (1996), Werner (1999) underline the phonological criteria that determine the distribution of null 1sg subjects in Swabian and Zürich German, the direct link between agreement and null 1sg subjects in these vernaculars must also be stressed. Had mere phonology been the sole licensing factor, it could be expected that also other apparently rather

weak subject clitics, such as for instance the both Zürich German and Swabian 3sg neuter *-s* ('it') (Cooper 1994:103, Bohnacker 2013:25), would be in peril to disappear in specific articulatory combinations (as discussed by Bohnacker 2013 – see above), and to successively become established as a true null subject. Yet, this is not the case. The explanation is probably the lack of Distinct Agreement (see section 4.2 below) – in want of gender features, the 3sg verb agreement suffix *-t* cannot recover a null 3sg neuter subject.

In a recent quantitative study, Bohnacker (2013) demonstrates that 1sg null subjects are exceedingly rare in Swabian (but there are to date no such studies of Zürich German).

The questionnaire studies show that in some cases, the individual variation is noticeable, both in Swabian (as also evidenced by Bohnacker 2013) and in Zürich German. The variation is however centered on the purported phonological criteria, while all tested speakers agree that null 1sg subjects require a pre-clitic position. This indicates very clearly that these null subject clitics are an integrated and still vivid part of Alemannic grammar.[13]

4. Null thematic subjects in embedded clauses

4.1. Introduction

In a number of contemporary theoretical approaches to the null subject research problem, null subjects are in different fashions tied to the finite verb in T (cf. Holmberg 2010, Biberauer 2010, Biberauer & Roberts 2010, Sigurðsson 2011, Camacho 2013, Rosenkvist 2015 etc.). For instance, Biberauer (2010) suggests that T may have D- and/or V-features, and that the EPP-feature can be satisfied by movement of either DP to SpecTP or D to T, and Sigurðsson (2011) considers null subjects of the Romance type to be affixal subjects that are incorporated with the finite verb in T (following similar analyses by Alexiadou

13 An anonymous reviewer points out that a more detailed discussion of the micro-variation concerning null 1sg subjects in Allemannic and Swabian can be found in Weiß (forthcoming).

& Anagnostopoulou 1998, Platzack 2004, and Holmberg et al 2009). D-features in T are however uninterpretable, and must be deleted before Spell-Out, so the finite verb must move to T in overt syntax. The identification and/or licensing of null subjects is accordingly dependent on the presence of the finite verb in T, prior to Spell-Out. The modern Germanic null-subject vernaculars constitute an interesting challenge in this perspective, since most of them (the exceptions are Övdalian and Yiddish) are of the OV-type, with the finite verb in final position in embedded clauses.[14] If the finite verb must be situated in T, then we do not expect to find null subjects in embedded clauses in OV-languages.

In this section, two issues pertaining to null subjects in vernacular Germanic embedded clauses are addressed. First, the topic is the distribution of null subjects in embedded clauses, and then I turn to agreeing and non-agreeing complementizers.

4.2. Null subjects in verb-final clauses

In all of the modern Germanic vernaculars that are included in this study, null subjects appear both in main clauses and in embedded clauses – see examples in (22–27).

(22) ...daß scho des Buch kauft hasch. (Swabian; Haag-Merz 1996:153)
that already the book bought have-2sg
'that **you** already have bought the book'

(23) ...öb nach Züri chunnsch. (Zürich German; Cooper & Engdahl 1989:38).
whether to Zürich come-2sg
'whether **you** come to Zürich'

(24) Ik tink datst my helpe moatst. (Frisian; de Haan 1994:81)

14 There are of course various analytical approaches to the West Germanic OV-languages. While many scholars claim that German has a clause-final T, Haider (2010:chapter 2) argues that German does not have any TP, and that the finite verb remains in VP in embedded clauses. For reasons of time and space, it is not possible to discuss the analytical options further here, considering that this is a complex debate that has been going on for several decades.

I think that-2sg me help must-2sg

'I think that **you** must help me'

(25) ...obst noch Minga kummst (Bavarian; Fuß 2004:60)

whether-2sg to Munich come-2sg

'whether **you** come to Munich'

(26) Trink nit di kave, vorem vest nit kenen slofn. (Yiddish; Jacobs 2005:261)

drink not the coffee because get-2sg not no sleep

'Don't drink the coffee, because **you** won't be able to sleep'

(27) ...dar wilum glåmå min wennanan. (Övdalian)

when want-1pl chat with each-other

'when **we** want to chat with each other'

As was noted above, the finite verb in Swabian, Zürich German, Bavarian and Frisian is clause-final in embedded clauses, while it follows the complementizer in Yiddish and Övdalian (when the subject is missing). With an overt subject, the word order is complementizer-subject-finite verb in Yiddish and Övdalian (cf. Rosenkvist 2010, 2011, 2012). Assuming that the finite verb raises to T in these two vernaculars, the proposed link between thematic null subjects and the finite verb in T can be upheld, whereas the position of the finite verb in the remaining vernaculars call for an analytical revision. Being clause-final, the finite verb cannot easily be envisaged to occupy T in Spell-Out in Swabian etc., and therefore it cannot participate in the identification/licensing of the thematic null subject (as suggested by for instance Holmberg 2010, Biberauer 2010, Biberauer & Roberts 2010 and Sigurðsson 2011). Even if one postulates that the Germanic OV-varieties have a clause-final TP, it is hard to see how the subject could merge in SpecTP, considering the word order in embedded clauses with (obligatorily) overt subjects.

In spite of the apparent theoretical difficulties, the evident link between verb agreement and thematic null subjects in modern Germanic nevertheless implies that agreement on the finite verb is a necessary condition for thematic null subjects in these vernaculars.

4.3. Agreeing complementizers

In Bavarian and Frisian, the complementizer (in C) agrees with the subject (see 24 and 25), be it overt or null. Agreeing complementizers in Germanic have been studied by for instance Zwart (1993), Weiß (2005), Fuß (2005:94ff), Axel & Weiß (2010, 2011), and de Haan (1994, 2010:chapter 10). The phenomenon is only attested in Continental West Germanic vernaculars, as noted by Weiß (2005:152f).

> [...] complementizer agreement is a significant property of Continental West Germanic dialects in that it distinguishes them from other Germanic languages/dialects like English or the Scandinavian ones, which all lack it. (Weiß 2005:152f).

From a typological viewpoint, agreeing complementizers may be seen as an areal feature. Frisian and Bavarian, two language varieties that do not have a recent common ancestor, both display such complementizers. Since the phenomenon did not occur in OHG (cf. Axel & Weiß 2010, 2011) and also seems to be missing in Old Frisian (cf. de Haan 1994, 2010:chapter 3), agreeing complementizers have probably developed independently in both Bavarian and Frisian, perhaps due to an areal typological pressure.

Axel & Weiß (2010, 2011) argue that agreeing complementizers constitute one of the prerequisites for thematic null subjects in modern Germanic. They assume that an agreeing verb (in main clauses) or an agreeing complementizer (in embedded clauses) in C may serve as a licenser for the null subject in SpecTP, the subject being c-commanded by the agreeing head. In this view, the relevant syntactic head is not T but C. However, since agreeing complementizers are not found in contemporary Swabian or Zürich German, two OV-vernaculars that nevertheless allow null subjects in embedded clauses, there are reasons to reconsider their proposal. Also north Frisian lacks such agreeing complementizers (cf. de Haan 2010:chapter 10). The exact licensing properties of these vernaculars remain to be further explored and analysed.

5. Identification of null subjects via Distinct Agreement

5.1. Two types of identification

As was mentioned in the introduction, Rizzi (1982, 1986) suggested that in null subject languages (NSLs), the subject role is fulfilled by a null pronoun (*pro*), which must be licensed and identified. However, in current versions of generative grammar (Chomsky 1995, 2001, 2005), the subject role cannot be fulfilled by an unrealized pronoun (*pro*) that is identified by agreement on the finite verb, since syntactic φ-features only are interpretable on a DP/NP. Hence, φ-features on a verb are uninterpretable and must be valued and deleted in the course of the syntactic derivation. Indeed, Holmberg (2005) emphasizes that:

> The theory of pro [...] cannot be maintained in a theory making the distinction between interpretable and uninterpretable features that plays a crucial role in Chomsky 1995: chapter 4 and subsequent work by Chomsky and others. Holmberg (2005:536)

Several linguists have therefore suggested new analyses (as was mentioned above), departing either from Borer´s (1986) pronominal affix-hypothesis ('I-subject'), and/or from the assumption that null subjects may in some way be identified via antecedents in the discourse, the two main approaches in current theorizing about null subjects.[15]

Cole (2010:281) assumes that all thematic null subjects must be recovered both by agreement and by antecedents; in any NSL, a null subject must be identified by an antecedent as well as by morphologically maximal agreement (i.e., as much agreement as is present in the language). Contextual strength/weakness in conjunction with agreement decides whether null subjects are possible or not, and the result is that there are three types of languages: contextually weak languages without null subjects (such as Norwegian, English and Icelandic), contextually strong languages where null subjects occur in

15 A third alternative is to resort to deletion of pronominal subjects (cf. Roberts 2010). I will not discuss this approach here.

conjunction with maximal agreement (Spanish, Bengali, Irish etc.) and contextually strong languages without agreement, such as Thai, Chinese, Japanese etc., where null subjects are allowed (Cole 2010:303). It may be noted that the contextual condition overrides agreement; Icelandic has rich agreement but since it is contextually weak, it nevertheless does not allow thematic null subjects in its grammar. Cole furthermore assumes that 1p and 2p null subjects are more accessible than 3p, 1p and 2p subjects being speech act participants SAPs), following Ariel's (1990) Accessibility Theory.

Likewise, Holmberg (2010) argues that null subjects can be derived in two different fashions.

> One of the theses argued for in this chapter is that there are two ways to derive null subjects: one is by means of incorporation of a subject pronoun in T. In this case the null subject is a deleted copy in a chain headed by T. Definite null subjects can be derived in this way in consistent NSLs only. The other is by deletion of a pronoun in SpecTP, subject to control from a higher clause. This is the only way that definite null subjects can be derived in partial NSLs. (Holmberg 2010:89)

Holmberg (2010) puts forth that null subjects in consistent NSLs are not DPs, but ϕPs, lacking a D-feature. This feature is supplied by a D-feature in T that merges with the subject ϕP, and the resulting null subject is accordingly interpreted as definite. In non-consistent NSLs, T has no D-feature, and consequently all ϕPs will be indefinite, unless controlled by a definite antecedent.

Also Sigurðsson (2011) proposes that there are two ways in which languages can accommodate null subjects. In line with Borer (1986), he claims that in acknowledged NSLs such as e.g. Italian, the agreement affixes on the finite verb function as a subject (being, in fact, incorporated pronouns). As affixal subjects, they are incorporated in T, but they are still visible across clause-boundaries just as regular overt pronouns. Topic-dropped null arguments (as well as overt pronouns) in non-agreeing languages are on the other hand identified via a C/Edge-linker in the C-domain (cf. Frascarelli 2007). Through context scanning, the C/Edge-linker connects with a clause-external antecedent that decides the reference of the null pronoun. Importantly, Sigurðsson (2011:283) claims that 1p and 2p pronouns need no such antecedent, being

SAPs, while 3p null subjects always need to be successfully linked to an antecedent, regardless of the "richness" of agreement.

> Since 1st and 2nd person are inherently C/edge-linked, this simply says that Italian Ø–Tϕ must either be a 1st or 2nd person pronoun or be a C/edge-linked (A-Top-linked) 3rd person pronoun, which is precisely the claim made by Frascarelli (2007). (Sigurðsson 2011:283)

> Importantly, though, the Italian type of null subject highlights the fact that not only ϕ-silent arguments but also Ø–T_{ϕ} [i.e., pronominal agreement] and other ϕ-visible pronouns need to be successfully C/edge-linked. (Sigurðsson 2011:286)

It follows that if access to the C/Edge-linker in the C-domain is blocked by an overt constituent in SpecCP, topic drop in e.g. Swedish is not possible. However, since the agreement affixes in languages such as Italian are in fact visible (affixal) pronouns, they do not depend on antecedents for the provision of φ-features, but they still must be C/Edge-linked.

Schematically, the proposals regarding identification presented by Cole (2010), Holmberg (2010), and Sigurðsson (2011:283) can be illustrated as in Figure 1 (disregarding the differences in analytical details).

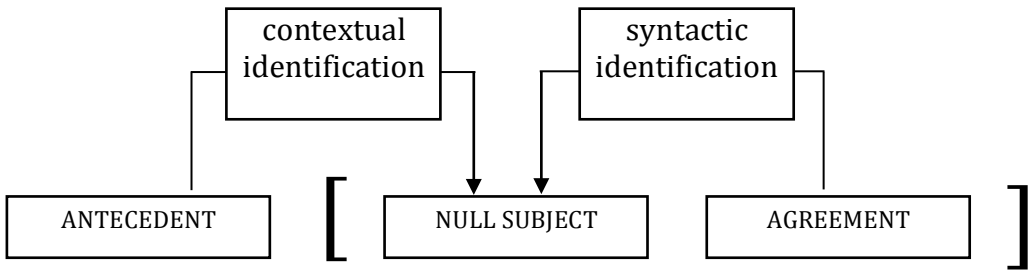

Figure 1. Two types of identification of null subjects.

A null subject can be identified syntactically, by clause-internal (as shown with the square brackets in Figure 1) agreement, that either causes the subject pronoun to delete or that itself is a subject pronoun, or contextually, by a clause-external antecedent. In the first case, we expect the (affixal) subject to merge internally to T, along with the agreeing element, due to EPP-movement or, alternatively, that there must be a (visible) Agree-relation between the agreeing

element and the null subject in TP, where the interpretable φ-features are deleted. In both of these scenarios, there is an intimate relation between the agreeing element (the finite verb, in general), and the subject, and this relation can be expected to be overtly visible as adjacency. A null subject can also be identified via an antecedent in the context, or be controlled by an antecedent in a preceding clause. Then, no such relation between the subject and the finite verb is necessary, and neither are the subject and the agreeing element required to appear in any specific syntactic positions, determined by the necessity to agree. In stead, we expect to find contextually identified null subjects only in structural positions where an appropriate antecedent is available. In this case, it is access to a clause-external antecedent that is essential, not the relation to agreement.

As pointed out by Sigurðsson (2011:279f), the two types of identification often interact. In Icelandic, verb agreement is non-interpretable and no null subjects appear. Still, Icelandic verb agreement is distinct in parts of the inflection paradigm. Hence, if a 1pl subject is topic-dropped, it must be identified through a context linker, but the identification is at the same time also constrained by the verb form (see example 28, which is taken from Sigurðsson 2011:280).

(28) Liggjum bara á ströndinni.
lie1pl only on beach-the
'**We** are only lying on the beach.'

Another relevant case is 3p null pronouns in for instance Spanish. According to Sigurðsson (2011), these pronouns are incorporated in T and visible as 3p-agreement on the finite verb. However, there is a salient difference between the verb inflection for 3pl (in general *-an* or *-en*) and the 3pl pronouns *ellos* and *ellas*; the pronouns, but not the verb form, are marked for gender (masculine and feminine, respectively). Gender is also reflected in predicative adjectives, as in example (29).

(29) Son largos/largas.

are3pl tall.pl.masc./tall.pl.fem.

'**They** are tall.'

Given that the predicative adjectives agree in gender, although gender features are not expressed by the supposedly incorporated subject pronoun, we must conclude that the agreeing adjective is controlled by an antecedent from outside of the clause, perhaps mediated by the subject in T. However, this phenomenon can also be seen as an indication that there actually is a regular null subject pronoun, a *pro*, in the clause (*contra* the affixal subject-hypothesis).

In the following section, I will argue that there is an alternative explanation for the person bias that has been observed and accounted for by Cole (2010) and Sigurðsson (2011), relating to the matter of "rich" verb agreement.

5.2. Identification via Distinct Agreement

In consistent NSLs, verbs in general agree with subject pronouns, and this feature has for long been assumed to be the foremost cause for covert subjects. However, the exact breaking point is still a matter of dispute: how "rich" must agreement be to license thematic null subjects? This question has been prevalent in the null subject-research (cf. Vikner 1995, 1997, Rohrbacher 1999, Koeneman 2006, Cole 2009, 2010; Camacho 2013:109–145 and many others). In most attempts to specify "richness" of agreement, the inflectional system of the finite verb in each particular language is looked upon as a discrete system. For instance, Cole (2009, 2010) claims that agreement must be as strong as possible in any specific language in order to license null subjects.

> Effectively what one can say is that every language has its own morphological maximality in terms of subject agreement. A null thematic subject can occur provided that, in the first instance, subject verb agreement is unique up to the point of morphological maximality. (Cole 2009:578)

In a language such as Tarifit, where verbs may agree for person, number and gender, only verb forms that display all of these features allow null subjects. But if maximal verb agreement does not supply all identifying features, the

remaining features must be recovered contextually, by an antecedent, according to Cole (2009, 2010). Still, Cole (2009:579) observes a problem in Arabic, a language in which 1sg and 1pl verb forms do not agree for gender, in contrast with the forms for 2p and 3p:

> In Arabic, morphological maximality is represented by person, number and gender. This creates a slight problem since, in this language, gender is only morphologically recovered in the second and third person singular and plural. The concept therefore needs some modification to allow null subjects to occur in the 1st person singular and plural without agreement for that person being specified for gender. (Cole 2009:579)

Cole's problem is however at least partially caused by the sole focus on verb agreement. A question that Cole (2009, 2010) and, in fact, most linguists having dealt with "rich" agreement, fails to ask is: what is it that needs to be identified? In the case of Arabic, there is no verb agreement for gender in 1p, as observed by Cole, but gender agreement for 1p would be superfluous in Arabic, since the 1p pronouns do not express gender; 1sg is *ana* ('I') and 1pl is *nahnu* ('we'). If the null subjects in Arabic are null versions of the regular null subjects, we accordingly would not expect gender agreement in 1p. In fact, a gender agreeing verb form for 1p would have no interpretable features on a nominal head to agree with, and would consequently lead to a crash of the derivation. However, the pronouns for 2p and 3p all express gender features – there are masculine and feminine forms both in the singular and in the plural (cf. also Camacho 2013:131ff).

Roberts (2010:59) states: "We can think of identification as a process whereby the values of the *pro*'s features are assigned." However, Roberts does not consider the overt subject pronouns' respective φ-features, which presumably match the features of the corresponding null subjects. If a null pronoun's features are to be recovered, one must, I suggest, first determine which features the overt pronoun is characterized by. This issue is especially salient in a great deal of the languages which have played a prominent role in the debate about null subjects (Italian, Spanish etc.), since in these languages, where the finite verbs agree in number and person, some pronouns express a gender feature whereas other pronouns do not. For instance, the Spanish

pronoun *ellos* ('they' masc.) has the following φ-features: plural, third person, masculine. As illustrated in example (33), the corresponding verb form is only marked for number (plural) and person (third), but not for gender, and hence the verb form cannot supply any gender feature to aid the identification of the null subject. This fact has gone unnoticed in most recent accounts of null subjects. For instance, in her detailed exploration of the properties of Italian 3sg null subjects, Frascarelli (2007) does not mention gender at all. Accordingly, in a language such as Spanish, we can say that agreement for 1sg is able to fully recover the corresponding pronoun (*yo* 'I'), since both forms express the same set of φ-features (number and person) and the same values of these features (singular and first). Hence, clause-internal, morphosyntactic identification of 1sg (and 2sg) null subjects is feasible in Spanish (see Table 2).

If the φ-features that are expressed by the agreeing verb form match the φ-features that are expressed by the subject pronoun perfectly, the verb agreement may be considered distinct. Distinct agreement (DA) is defined in more formal terms in (30).

(30) Verb agreement is distinct iff
  a. a specific verb form (F_a) and a pronoun (P) express the same set of φ-features
  b. F and P have the same values for φ
  c. only F_a matches the values for P.

The condition in (30c) excludes syncretic forms in the verb inflection paradigm from being distinct. Crucially, it is to be assumed that also infinitival verbs are included among the relevant verb forms (following Vikner 1995, 1997).

In Table 2, the feature correlation in Spanish is illustrated. The shaded cells denote the features expressed by finite verbs (present tense indicative), in comparison with the personal pronouns (full forms, nominative; polite forms are not included). Only in cases where the shading coincides with the pronouns, verb agreement is distinct (and the pronouns are then set in capitals).[16]

16 The verb forms for the verb *ser* ('to be') are: 1sg *soy*, 2 sg *eres*, 3 sg *es*, 1pl *somos*, 2pl *sois*, 3pl *son*.

Table 2. Feature correlation in Spanish.

	number	person	gender
1sg		YO	
2sg		TÚ	
3sg.m			él
3sg.f			ella
3sg.n			ello
1pl.m			nosotros
1pl.f			nosotras
2pl.m			vosotros
2pl.f			vosotras
3pl.m			ellos
3pl.f			ellas

As illustrated in table 2., we only find distinct agreement in 1sg and 2sg in Spanish. Assuming that null subject pronouns express the very same φ-features as their overt counterparts do, and the same values of these features, all other pronouns than *yo* and *tú* must hence be recovered also be means not relating to verb agreement in order to be fully identified – i.e., clause-external contextual identification is required. The other null subject pronouns must hence be linked to an antecedent, as proposed by Frascarelli (2007) for Italian 3sg null subjects and, more generally, by for instance Cole (2009, 2010) and Sigurðsson (2011).

Sigurðsson (2011) also suggests that 1p and 2p subject pronouns have a special status, being SAPs (as mentioned above), but the notion of DA may shed some new light on this issue, since many languages have gender marking on 3p pronouns, but not on 1p and 2p pronouns. In such languages, one would of course expect 3p null subject pronouns to behave differently, but not due to the

fact that they do not refer to SAPs, but to the fact that the corresponding verb-agreement is non-distinct.[17]

As for the modern Germanic vernaculars, DA correctly predicts which subjects pronouns that may appear as null subjects, and which may not. The difference between Bavarian and Central Bavarian is shown in tables 3 and 4, and feature correlation in Övdalian is illustrated in table 5.

Table 3. Feature correlation in Bavarian.

	number	person	gender
1sg		ii	
2sg		DU	
3sg.m			ea
3sg.f			sie
3sg.n			es
1pl.		mia	
2pl.		EES	
3pl.		se	

Table 4. Feature correlation in Central Bavarian (with the 1pl suffix *-ma*).

	number	person	gender
1sg		ii	
2sg		DU	
3sg.m			ea
3sg.f			sie
3sg.n			es
1pl.		MIA	
2pl.		EES	
3pl.		se	

17 Following this line of thought, one may conclude that there are two ways in which diachronic change can affect DA: changes in the agreement pattern of the finite verb, or changes in the paradigm of personal pronouns. Both of these types of change have been instrumental in the emergence of null thematic subjects in the modern Germanic languages (cf. Fuß 2004, 2005, 2011).

Table 5. Feature correlation in Övdalian.

	number	person	gender
1sg		ig	
2sg		du	
3sg.m			an
3sg.f			o
3sg.n			eð
1pl.		WIÐ	
2pl.		IÐ	
3pl.		dier	

While 1pl agreement in Bavarian is non-distinct, coinciding with 3pl, in Central Bavarian the 1pl agreement suffix *-ma* is clearly distinct. Thus, the notion of Distinct Agreement (DA) captures the difference between Bavarian and Central Bavarian, as well as the intralinguistic variation in Central Bavarian, accurately. Furthermore, also in the remaining modern Germanic vernaculars, DA is a prerequisite for thematic null subjects; no syncretic verb forms allow thematic null subjects (cf. the data presented in Table 1). In Övdalian (cf. table 5), for instance, there is one verb form for singular, and the form for 3pl coincides with the infinitive. Only the forms for 1pl and 2pl are distinct.[18]

The licensing of thematic null subjects in modern Germanic can accordingly be explained solely by morphosyntactic properties of the various vernaculars, and one does not need to evoke any notion of a particular, syntactically encoded Person-feature, as proposed by Sigurðsson (2011) and many others, in order to explain the person bias. Distinct Agreement pays heed to the fact that 3sg pronouns in Germanic are marked for gender – a null 3sg pronoun cannot be

18 For reasons of space, I will not present feature correlation tables for all of the vernaculars that are on the agenda here.

reconstructed from mere number and person agreement – and this explains why 3p thematic null subjects are not attested in modern Germanic. Furthermore, limiting the explanation to factors within the morphosyntactic system seems to be desirable also from a more general scientific perspective. Following Occam´s razor, a parsimonious explanation is to prefer over a more complex explanation that depends on non-essential assumptions. In this particular case, it appears that no Speech Act-features are necessary to explain the distribution of null subjects in the modern Germanic vernaculars (although such features may correlate with syntax in other parts of grammar).

6. Null subjects in modern Germanic – some conclusions

In the linguistic debate concerning null subjects, Germanic null subjects have for long been a non-issue, probably due to the fact that such null subjects are not possible in any Germanic standard language. However, it is apparent that several vernaculars allow thematic null subjects in 1st and 2nd person – in this chapter, I have discussed six of them. The modern Germanic vernaculars offer an interesting testing ground for the study of null subjects, considering that the Germanic languages have a relatively rigid word order. For instance, no 'traditional' null subject languages (such as Italian, Spanish or Greek) have V2-word order in main clauses or OV-word order in embedded clauses.[19] These features contribute in providing a clearer view of the interaction between the position of the finite verb and null subjects, for instance, and simultaneously posit new challenges. How are null subject in embedded OV-clauses identified when no agreeing complementizer can provide c-commanding agreement, as in Zürich German and Swabian? It has also been demonstrated (in section 3) that 1st null subjects in these vernaculars are to be analysed as null clitic pronouns, since these null subject require specific phonetic contexts as well as verb agreement.

19 Old French has been claimed to be a V2-language with null subjects, however (cf. Adams 1987, Vance 1995). In Rosenkvist (2009), I argue that null subjects in Old Germanic were not related to verb agreement (but cf. Walkden 2012, 2013) and it is possible that similar conditions applied in Old Romance.

The relation between agreement on the finite verb and thematic null subjects is a classic issue in current syntactic research. In this chapter, I have suggested that the notion of Distinct Agreement is sufficient to explain the distribution of thematic null subjects in the modern Germanic vernaculars. Hence, I propose that ”rich” or ”strong” agreement may not be a property of languages, but rather a form of interaction between specific subject pronouns and corresponding agreement (manifested on the finite verb or elsewhere). While it appears that DA explains the Germanic null subjects correctly, a number of predictions concerning other null subject languages also fall out from this assumption. In essence, I suggest that the Germanic null subjects that have been discussed above follow the same restrictions as Romance null subjects. As shown by Frascarelli (2007), Italian 3sg null subjects require antecedents in the discourse context, and DA predicts that the same should apply for all null subjects in Spanish, except for 1st and 2sg, due to the fact that there is no feature correlation between the remaining pronouns and verb agreement. Whether this assumption is supported by data, only future studies can decide.

References

Adams, Maud. 1987. *Old French, Null Subjects and Verb Second Phenomena*. Ph. D.-diss. UCLA, Los Angeles.

Alexiadou, Artemis, and Elena Anagnostopoulou. 1998. Parametrizing Agr: Word order, V-movement and EPP-checking. *Natural Language and Linguistic Theory* 16:491–539.

Axel, Katrin. & Weiß, Helmut. 2010. What changed where? A plea for the re-evaluation of dialectal evidence. In: Anne Breitbarth, Christopher Lucas, Sheila Watts and David Willis (eds.). *Continuity and Change in Grammar*, 13–34. John Benjamins, Amsterdam/Philadelphia.

Axel, Katrin. & Weiß, Helmut. 2011. Pro-drop in the History of German. From Old High German to the modern dialects. *Empty pronouns*. Ed. P. Gallman and M. Wratil. Berlin: De Gruyter.

Barbosa. Pilar. 2009. Two kinds of subject pro. *Studia Linguistica* 63,1:2–58.

Biberauer, Theresa, Anders Holmberg, Ian Roberts & Michelle Sheehan. 2010. *Parametric Variation: Null Subjects in Minimalist Theory*. CUP, Cambridge.

Biberauer, Theresa & Ian Roberts. 2010.

Bohnacker, Ute. 2013. Null subjects in Swabian. *Studia Linguistica* 67(3), 257–289.

Borer, Hagit. 1986. I-subjects. *Linguistic Inquiry* 17, 721–734.

Camacho, José. *Null Subjects*. CUP, Cambridge.

Chomsky, Noam. 1995. *The Minimalist Program*. The MIT Press, Cambridge, MA.

Chomsky, Noam. 2001. Derivation by phase. *Ken Hale: A Life in Language*, 1-52. Ed. M. Kenstowicz. The MIT Press, Cambridge, MA.

Chomsky, Noam. 2005. Three factors in language design. *Linguistic Inquiry* 36:1–22.

Chomsky, Noam. 2008. On phases. In *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*, ed. by Robert Freidin, Carlos P. Otero, and Maria Luisa Zubizarreta, 133–166. Cambridge, MA: MIT Press.

Cole, Melvyn. 2009. Null Subjects: a Reanalysis of the Data. *Linguistics* 47.3:559–587.

Cole, Melvyn. 2010. Thematic Null Subjects and Accessibility. *Studia Linguistica*.

Cooper, Kathryn. 1994. Null Subjects and Clitics in Zürich German. *Topics in Swiss German Syntax*, 59-72, ed. Zvi Penner. Peter Lang, Bern etc.

Cooper, Kathryn & Elisabeth Engdahl. 1989. Null Subjects in Zürich German. *WPSS* 44:31-44.

Frascarelli, Mara. 2007. Subjects, Topics and the Interpretation of Referential pro. *Natural Language and Linguistic Theory* 25:691-734.

Fuß, Erich. 2004. Diachronic clues to pro-drop and complementizer agreement in Bavarian. *Diachronic Clues to Synchronic Grammar*, 59-100. Ed: Eric Fuß & Carola Trips. John Benjamins, Amsterdam/Philadelphia.

Fuß, Eric. 2005. *The Rise of Agreement*. John Benjamins, Amsterdam/Philadelphia.

Fuß, Eric. 2011. Historical pathways to null subjects: Implications for the theory of pro-drop. In: Peter Gallmann & Melani Wratil (hrsg.), *Null Pronouns*, 53-98. Berlin: Mouton de Gruyter.

Garbacz, Piotr. 2010. *Word Order in Övdalian*. Ph. D. thesis. The Centre for Languages and Literature, Lund University.

Geller, Ewa. 1999. Hidden Slavic Structure in Modern Yiddish. In J*iddische Philologie. Festschrift für Erika Timm*, ed. by Walter Röll and Simon Neuberg, 65–89. Tübingen: Max Niemeyer Verlag,

Gilligan, Gary. 1987. *A cross-linguistic approach to the pro-drop parameter*. Ph. D. -diss. University of Southern California.

Haag-Merz, C. 1996. *Pronomen in Schwäbischen – Syntax und Erwerb*. Tectum Verlang, Marburg.

de Haan, Germen. 1994. Inflection and cliticization in Frisian. NOWELE 23:75–90.

de Haan, Germen. 2010. Complementizer agreement. In: *Studies in West Frisian Grammar*, ed. Jarich Hoekstra, Willem Visser & Goffe Jensma, 215–232. Amsterdam/ Philadelphia, John Benjamins.

Haider, Hubert. 2010. *The Syntax of Germa*n. Cambridge University Press.

Hoekstra, Jarich. & L. Marácz. 1989. On the position of inflection in West-Germanic. *WPSS* 44:62-75.

Hoekstra, Jarich. 1997. Pro-drop, clitisering en voegwoordcongruentie in het Westgermaans. *Vervoegde Voegwoorden*, 68–86. Meertens Institut, Amsterdam.

Holmberg, Anders. 2005. Is there a little pro? Evidence from Finnish. *Linguistic Inquiry* 36:4:533-564.

Holmberg, Anders. 2010. Null subject parameters. In Biberauer et al, 88–124.

Holmberg, Anders, Aarti Naydu, and Michelle Sheehan. 2009. Three partial null-subject languages: A comparison of Brazilian Portuguese, Finnish and Marathi. *Studia Linguistica* 63:59–97.

Huang, James. 1984. On the Distribution and Reference of Empty Pronouns. *Linguistic Inquiry* 15:531 – 574.

Jacobs, Neil. 2005. *Yiddish. A Linguistic Introduction*. CUP, Cambridge.

Jaeggli, Osvaldo & Safir, Ken. 1989. The null-subject parameter and parametric theory. *The Null Subject Parameter*, 1-44. Ed. Osvaldo Jaeggli & Ken Safir. Dordrecht, Kluwer.

Johannessen, Janne Bondi & Piotr Garbacz. 2015. Övdalian from 1909 to 2009. In: *Studies in Övdalian Morphology and Syntax,* 11–46. Ed. Kristine Bentzen, Henrik Rosenkvist & Janne Bondi Johannessen. Amsterdam etc.: John Benjamins.

Koeneman, Olaf. 2006. Deriving the difference between full and partial pro-drop. In: Ackema, Peter, Patrick Brandt, Maaike Schoorlemmer and Fred Weerman (eds.). *Arguments and Agreement*, 76-100. Oxford: OUP.

Levander, Lars. 1909. Älvdalsmålet i Dalarna. Ordböjning ock syntax. Stockholm: P. A. Norstedt & Söner.

Platzack, Christer. 2004. Agreement and the Person Phrase Hypothesis. *WPSS* 73:83–112.

Prince, Ellen. 1998. Subject-prodrop in Yiddish. *Focus: linguistic, cognitive and computational perspectives*:82-104. Ed. P. Bosch & R. van der Sandt. Cambridge, CUP.

Rizzi, Luigi. 1982. *Issues in Italian Syntax*. Foris, Dordrecht.

Rizzi, Luigi. 1986. Null objects in Italian and the theory of pro. *Linguistic Inquiry* 17:501-557.

Roberts, Ian. 2010. A deletion analysis of null subjects. In: Biberauer et al, 58–87.

Roberts, Ian & Anders Holmberg. 2010. Introduction: parameters in minimalist theory. In: Biberauer et al, 1–57.

Rohrbacher, Bertrand. W. 1999. *Morphology-Driven Syntax: A Theory of V to I Raising and Pro-Drop*. John Benjamins, Amsterdam/Philadelphia.

Rosenkvist, Henrik. 2009. Null Referential Subjects in Germanic – an Overview. *Working Papers in Scandinavian Syntax* 84:151–180.

Rosenkvist, Henrik. 2010. Null Referential Subjects in Övdalian. *Nordic Journal of Linguistics* 33,3:231–267.

Rosenkvist, Henrik. 2012. Null subjects in Yiddish – some preliminary observations. *Discourse & Grammar – A Festschrift in Honour of Valéria Molnár*. Johan Brandtler, David Håkansson, Stefan Huber & Eva Klingvall (eds), 433–445. Centre for Languages and Literature, Lund University.

Rosenkvist, Henrik. 2015. Evidence for a Syntactic Parameter at Work in Övdalian. 224–238. In *New Trends in Nordic and General Linguistics*, 224–238. Ed. Martin Hilpert, Jan-Ola Östman, Christine Mertzlufft, Michael Rießler & janet Duke. Berlin: De Gruyter.

Rowley, Anthony R. 1989. North Bavarian. In: *The dialects of modern German*, ed. Charles V. J. Russ, p. 417–437. Stanford U. Press. Stanford, California.

Russ, Charles V. J. 1989a. *The dialects of modern German*. Stanford U. Press. Stanford, California.

Russ, Charles V. J. 1989b. Swabian. In: *The dialects of modern German*. ed. Charles V. J. Russ, p. 337–363. Stanford U. Press. Stanford, California.

Russ, Charles V. J. 1989c. High Allemannic. In: *The dialects of modern German*. ed. Charles V. J. Russ, p. 364–393. Stanford U. Press. Stanford, California.

Santorini, Beatrice. 1989. *The Generalization of the Verb-Second Constraint in the History of Yiddish*. PhD dissertation, University of Pennsylvania.

Sigurðsson, Halldór. 2011. Conditions on Argument Drop. *Linguistic Inquiry* 42:2, 267–304.

Speas, Margaret. 2006. Economy, Agreement, and the Representation of Null Arguments. In: Ackema, Peter, Patrick Brandt, Maaike Schoorlemmer and Fred Weerman (eds.). *Arguments and Agreement*, 35–75. Oxford: OUP.

Taraldsen, Tarald. 1978. On the NIC, Vacuous Application and the *That*-trace Filter. Unpubl. ms.

Walkden, George. 2012. *Syntactic Reconstruction and Proto-Germanic*. PhD-thesis, University of Cambridge.

Walkden, George. 2013. Null subjects in Old English. *Language Variation and Change* 25:155–178.

Vance, Barbara. 1995. On the Decline of Verb Movement to Comp in Old and Middle French. *Clause structure and language change*, 173–199. Eds. Ian Roberts and Adrian Battye. OUP, Oxford.

Weiss, Helmut. 1998. *Syntax des Bairischen*. Max Niemeyer, Tübingen.

Weiß, Helmut. 2005. Inflected Complementizers in Continental West Germanic Dialects. *Zeitschrift für Dialektologie und Linguistik* 72,2: 148-166.

Weiß, Helmut. Forthcoming. On a curiosity in the syntax of personal pronouns in some German dialects. *Journal of Comparative Germanic Linguistics* 18,1.

Werner, Ingegerd. 1999. *Die Personalpronomen in Zürichdeutschen*. PhD-thesis, Lund University.

Viesel, Yvonne. 2011. Glaubt er, glaub ich, glaub. *Linguistische Berichte* 226: 129–170.

Wiesinger, Peter. 1989. The Central and Southern Bavarian Dialects in Bavaria and Austria. In: *The dialects of modern German*, ed. Charles V. J. Russ, p. 438–519. Stanford U. Press. Stanford, California.

Vikner, Sten. 1995. *Verb Movement and Expletive Subjects in the Germanic Languages*.

OUP, New York.

Vikner, Sten. 1997. V°-to-I° movement and inflection for person in all tenses. *New Comparative Syntax*, 189-213. Ed. L. Haegeman.Longman, London.

Zwart, Jan-Wouter. 1993. Clues from dialect syntax: complementizer agreement. *Dialektsyntax*, eds. Werner Abraham & Josef Bayer. Opladen, Westdeutacher Verlag, 246–270.