Historical pathways to null subjects:
Implications for the theory of pro-drop[*]

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1. Introduction

In generative approaches to pro-drop phenomena, it is standardly assumed that there is a correlation between the availability of null subjects and rich verbal inflection (cf. Jaeggli & Safir 1989, Roberts 1993, Vikner 1997, Rohrbacher 1999, among many others; see e.g. Haider 1994 for a critical review). Accordingly, it is expected that historically, pro-drop emerges when the richness of verbal agreement marking crosses a certain threshold. Furthermore, since the 'pro-drop parameter' is generally considered as being binary in nature (i.e., referential pro-drop is either generally available or completely absent), the rise of pro-drop is predicted to proceed in an across-the-board fashion, affecting all persons and numbers at once.

This paper discusses two different pathways to null arguments that are at odds with these predictions. We will see that the relevant changes fail to exhibit either the expected across-the-board character or the correlation with properties of verbal agreement.

First, it is shown that null subjects develop as a by-product of the reanalysis of pronominal clitics as verbal agreement markers (see Haider 1994, Roberts & Roussou 2003: 185f.). This historical development, which can be observed in German dialects and non-standard varieties of French, typically takes place in a piecemeal fashion, that is, it affects certain person/number combinations before others. Hence, referential pro-drop is at first restricted to certain slots of the paradigm (sometimes referred to as 'partial pro-drop'), before it eventually extends to all persons and numbers. This is

illustrated in (1) and (2) with examples from present-day Bavarian, where referential pro-drop is restricted to second person (Bayer 1984):

(1) a. *Kummst noch Minga, dann muaßt   me b'suacha.*
         come-2SG to   Munich then must-2SG me visit

         'If (you) come to Munich (you) must visit me.'

     b. *Kummts   noch Minga, dann müaßts   me b'suacha.*
         come-2PL to   Munich then must-2PL me visit

         'If (you.PL) come to Munich (you.PL) must visit me.'

(2) a. **Kumm   noch Minga?*
          come-1SG to   Munich

          'Will (I) come to Munich?'

     b. **Kumm-t noch Minga?*
          come-3SG to   Munich

          'Will (he/she/it) come to Munich?'

Furthermore, I am going to demonstrate that the replacement of clitic pronouns by null subjects is not directly related to properties of the agreement paradigm as a whole. The basic proposal that I want to explore is that the rise of agreement-related null arguments is governed by the following two factors, which both involve the notion of morphological blocking:

(i)   An acquisition strategy that motivates the reanalysis of a particular pronominal clitic if the resulting agreement marker is more distinctive than the existing verbal inflection (cf. Fuß 2005);

(ii) Deblocking of a (universally available) null realization of weak/clitic pronominal forms (formerly blocked by the presence of a more distinctive overt spell-out), in case the reanalysis leads to a gap in the paradigm of weak pronouns (assuming that null subjects are to be analyzed as the zero realization of regular pronominal forms, Holmberg 2005).

Second, it is shown that an alternative path toward null arguments can be observed in creole languages such as Mauritian Creole (Syea 1993, Adone 1994a, b), which exhibits referential null subjects:

(3) *Pu   return dañ peis   bieñto.*
     MOD return in   country soon

     '[I] will go back to the country soon.'

(4)   *Ti   boykot en   paket kreol dañ travay.*
      TNS boycot QUA many creole in   work

    '[He] boycotted many creoles in his work.'

The historical developments in Mauritian Creole contrast with the changes affecting Bavarian and Non-Standard French in at least two ways: first, the rise of null arguments does not involve the grammaticalization of agreement markers (Mauritian Creole lacks the category of verbal agreement). Second, it apparently proceeds in an across-the board manner, affecting all kinds of arguments (including objects) in a more or less equal way. A similar development is shown to have affected Chabacano, a Spanish-based creole spoken in the Philippines (Lipski 2001). I am going to argue that the null subjects found in Mauritian Creole and Chabacano developed on the model of discourse-oriented pro-drop found in certain Austronesian languages (due to language contact or substrate influence), where the licensing/identification of the argument gap seems to be linked to the elaborate verbal voice morphology, which indicates the null argument's thematic role. Both pathways to pro-drop discussed here – the one linked to the rise of agreement as well as the grammaticalization of discourse-oriented pro-drop – are not readily compatible with the notion that there is a systematic correlation between pro-drop and rich verbal agreement morphology.

    The paper is organized as follows. Section 2 discusses the development of partial pro-drop in the history of Bavarian, arguing that the emergence of null subjects is linked to the reanalysis of clitic pronouns as enlargements of the existing suffixal agreement morphology. In section 3, it is shown that a related development has been affecting Non-Standard French, albeit in a more wholesale fashion, eventually leading to full-fledged referential pro-drop in all persons and numbers. Section 4 takes a cursory look at the emergence of discourse-oriented pro-drop phenomena in Mauritian Creole and Chabacano (Philippine Spanish Creole), arguing that the relevant historical developments share a number of properties, which can be attributed to contact with (or, substrate influence of) Austronesian languages (Malagasy and Tagalog, respectively).

2.   The development of partial pro-drop in Bavarian

As illustrated in (1) and (2) above, Bavarian exhibits a form of partial pro-drop where referential null subjects are confined to 2nd person contexts

(and 1pl in some dialects, see below) (cf. Bayer 1984, Weiß 1998, 2002, 2005, Axel & Weiß, this volume). Interestingly, these are the very same contexts in which Bavarian exhibits the phenomenon of complementizer agreement (Bayer 1984, Altmann 1984, Weiß 1998, 2002, 2005):[1]

(5) a. *ob-st*   (*du*)   *noch Minga   kumm-st*
         whether-2SG you.SG   to   Munich come-2SG
         'whether you come to Munich'

     b. *ob-ts*   (*ees/ihr*) *noch Minga   kumm-ts*
         whether-2PL you.PL   to   Munich come-2PL
         'whether you(PL) come to Munich'

The formatives -*st*, -*ts*, which attach to the complementizer in (5), are obligatorily present and cannot be replaced by the relevant tonic subject pronouns. The latter are only acceptable if they co-occur with -*st*/-*ts*, cf. (6). This contrasts with the behavior of genuine subject clitics (cf. (7)) and can be taken to indicate that the -*st* and -*ts* are not pronominal clitics, but rather inflections.[2] Furthermore, the fact that it is not possible to attach the alleged 2nd person 'clitics' -*st*/-*ts* to the inflected verb (forms such as 2sg **kummst-st* or 2pl **kummts-ts* are not well-formed) can be taken to indicate that Bavarian lacks 2nd person subject clitics altogether (that is, there are gaps in the paradigm of clitic pronouns; see Altmann 1984,

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1. Further languages that exhibit the phenomenon of partial pro-drop include Finnish, Hebrew (Vainikka & Levy 1999, Koeneman 2007; see also below) and Frisian, where pro-drop is also limited to contexts where complementizer agreement is available (2sg) (examples taken from Zwart 1993: 256):

   (i) a. *Kom-st*   (*do*) *jûn?*
            come-2SG   you tonight
            'Do you come tonight?'

        b. *dat-st*   (*do*) *jûn   kom-st*
            that-2SG   you tonight come-2SG
            'that you come tonight'

2. Note that some properties of complementizer agreement seem to speak against an analysis in terms of inflectional formatives. The following examples illustrate that in the absence of a complementizer, the inflection can attach to any element that occurs in the left periphery of the clause such as DPs (iia), adjectives (iib), or adverbs (iic) (examples taken from Bayer 1984: 235; see also Zehetner 1985 and Nübling 1992):

Bayer 1984, Fuß 2005). Accordingly, the sentences in (5) must be analyzed as instances of referential pro-drop.

(6) a. *ob   *du*   *noch Minga kumm-st*
          whether you.SG to   Munich come-2SG

          'whether you come to Munich'

    b. *ob   *ees/ihr noch Minga kumm-ts*
          whether you.PL to   Munich come-2PL

          'whether you come to Munich'

(7) a. *ob=e*   (*i) *noch Minga kumm*
          whether=CLIT.1SG I to   Munich come-1SG

    b. *ob*   *i noch Minga kumm*
          whether I to   Munich come-1SG

          'whether I come to Munich'

An additional instance of complementizer agreement can be observed in some Carinthian and Lower Bavarian varieties, where the 1pl subject

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(i) a. *Du soll-st*   *song* [CP [*an wäichan Schuah*]-*st* [IP *du* *wui-st*]]].
          you should-2SG say   which   shoe-2SG   you want-2SG

          'You should say which shoe you want.'

    b. [CP [*Wia oit*]-*ts*   [IP *ihr/es sei-ts*]] *is mir*   *wurscht.*
          how old-2PL   you are-2PL is me.DAT   not-important

          'How old you are makes no difference to me.'

    c. [CP [*Wia schnäi*]-*ts* [IP *ihr/es*   *fahr-ts*]]!
          how fast-2PL   you.PL drive-2PL

          'How fast you drive!'

At first sight, this kind of behavior might be taken to indicate that the relevant formatives are clitics (rather than inflections, which typically select for a unique host). However, one can argue that in examples such as (ia–c), there is actually a phonetically empty complementizer present to which the inflectional ending attaches (cf. Harnisch 1989). Under this assumption, one can maintain that the set of hosts which the relevant agreement formatives select for is rather limited (only C^0 elements, i.e., complementizers and finite verbs). This analysis is supported by the fact that the complementizer can also be overtly present in the above examples, cf.

(ii) *Du soll-st*   *song* [CP [*an wäichan Schuah*] (*dass*)-*st* [IP *du* *wui-st*]]].
       you should-2SG say   which   shoe-2SG that-2SG   you want-2SG

     'You should say which shoe you want.'

enclitic *-ma* turned into a C-related inflection (cf. Pfalz 1918, Schirmunski 1962: 525, Bayer 1984, Altmann 1984, Kollmer 1987, Wiesinger 1989, Abraham 1995, Weiß 1998, 2002, Fuß 2005). As a result of that change, the formative 1pl *-ma* exhibits a similar behavior as the 2nd person inflections: it is obligatory in all contexts and it can be doubled by full pronoun, as illustrated in (8) and (9). Moreover, (10) shows that in a subset of the relevant varieties, the new agreement formative has fully replaced the older ending /-an/ (albeit the extension is still restricted to auxiliaries and a couple of modals):

(8) a. *wem-**ma**   aaf Minga   fon*
         when-1PL to   Munich drive

     b. *wem-**ma**   mia aaf Minga   fon*
         when-1PL we   to   Munich drive

     c. **wem mia aaf Minga   fon*
          when we   to   Munich drive
         'when we drive to Munich'   (Weiß 2002: 9)

(9) a. *Mia fom-**ma**   hoam.*
         we   drive-1PL home
         'We go home.'   (Weiß 2002: 9)

     b. **Mia fon   hoam*
          we   drive home
         'We go home.'   (Helmut Weiß, p.c.)

(10) a. *dass-**ma** (mia) koã geid   ned hã-**ma***   [instead of 1pl *hã-n*]
         that-1PL we   no   money not have-1PL
         'that we have no money'   (Kollmer 1987: I, 362)

     b. *we-**ma** (mia) des ned dou-**ma**...*   [instead of 1pl *dou-n*]
         if-1PL we   that not do-1PL
         'if we don't do that...'   (Kollmer 1987: I, 358)

Accordingly, sentences like (11) must presumably be analyzed as involving a null subject, similar to related examples with 2nd person forms (Bayer 1984: 252):

(11) *Fahr-ma Ø noch Minga?*
     drive-1PL   to   Munich
     'Will (we) go to Munich?'

The fact that pro-drop is limited to the same contexts where inflected complementizers appear has led some researchers to propose that the overt manifestation of agreement in C serves to license referential null arguments in the subject position (cf. e.g. Bayer 1984, Weiß 2002, Axel & Weiß, this volume). While this proposal raises a couple of questions from a purely synchronic point of view,[3] it is fairly clear that the two phenomena are correlated historically.

In Bavarian (and a number of other Germanic varieties), new verbal agreement suffixes developed via a reanalysis of subject enclitics attached to the finite verb in inversion contexts. This change led to an enlargement of the existing inherited agreement endings, the best-known case being 2sg -*s* + *t*(*hu*) ≫ 2sg -*st* (Brinkmann 1931, Sommer 1994, Braune & Reiffenstein 2004: 261; cf. Bayer 1984, Weiß 2002, Fuß 2005 for details of the changes affecting Bavarian).[4] In Fuß (2004, 2005), it is argued that the transition of pronouns to agreement markers forced the learner to assume the presence of a referential null subject (*pro*) receiving the thematic role of the external argument, which had formerly been assigned to the clitic

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3. For example, it is unclear why complementizer agreement and pro-drop are limited to 2nd person contexts in Bavarian. From a purely synchronic point of view, this restriction appears to be quite arbitrary, as it does not relate to any other property of the grammar. Furthermore, we might ask why pro-drop is also licensed in inversion contexts, where complementizer agreement is not visible (cf. (1)). Note that in these contexts, the restriction to 2nd person cannot be attributed to some special morphological property of 2nd person verbal agreement suffixes, in the sense that 2nd person forms are more distinctive than 1sg or 3sg (Axel & Weiß, this volume, assume that *pro* must be c-commanded by pronominal agreement. This requires that speakers/learners must be able to ascertain the ±pronominal status of a particular agreement ending, which does not seem to be an easy task). Finally, note that in other varieties such as West Flemish and dialects spoken in the east and south of the Netherlands, the presence of complementizer agreement does not license pro-drop (cf. e.g. Zwart 1993).

4. As has been suggested occasionally (cf. e.g. Paul 1879: 549, Braune & Reiffenstein [15]2004: 261), this change was presumably promoted by the fact that other verbs already showed -*st* for the 2sg present indicative (notably, the class of preterite-presents, e.g. *kanst*, *tarst*, *muost*, *weist* and the 2sg of 'be' *bist*, which resulted from an independent and earlier development, cf. Lühr 1984).

pronoun.[5] It is assumed that this gave rise to the limited pro-drop proper-
ties of the present-day language (cf. Weiß 2002 for a related proposal):

(12) $[_{CP}$ XP $[_{C'}$ V$_{fin}$ $[_{IP}$ clitic$_{subj}$ ...]]] $\rightarrow$ $[_{CP}$ XP $[_{C'}$ V$_{fin}$ + AGR $[_{IP}$ *pro*...]]]

    a.   2sg: $|$-$s|$ + $|t|$ ($\ll$ clit. 2sg *t(hu)*)

    b.   2pl: $|$-$t|$ + $|s|$ ($\ll$ clit. 2pl *(ee)s*)

    c.   1pl: $|an|$ $\rightarrow$ $|ma|$ ($\ll$ clit. 1pl *ma*)

However, this proposal raises two further questions, which are addressed
below. First, we might ask why the absence of an alternative overt carrier
of the relevant thematic role (e.g., a left-dislocated subject double) does
not simply block the reanalysis of the pronominal clitics (instead of giving
rise to the marked parametric option of partial pro-drop). Second, the fact
that the reanalysis did not affect all existing agreement endings, giving rise
to full-fledged pro-drop, but was rather confined to 2nd person forms
(plus 1pl in some varieties) calls for an explanation.

2.1.   Deblocking the zero spell-out of weak pronouns

In this section I will take a closer look at the circumstances under which
the transition from pronominal clitics to inflectional markers may give
rise to null subjects. In particular, I want to explore the question of how
agreement-related null arguments can develop in a language such as
Bavarian that otherwise lacks the prerequisites (i.e., rich verbal inflection)
for full-fledged 'Italian-style' referential pro-drop.

   The proposal I want to put forward is based on the idea that the type of
partial pro-drop found in Bavarian is systematically linked to gaps in the
paradigm of weak (or clitic) pronominal forms. Recall that the evidence
available to us suggests that the reanalysis of clitic pronouns did not only
lead to new agreement suffixes, but also produced gaps in the paradigm of
weak/clitic pronouns (cf. e.g. Altmann 1984: 200):

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5. The evidence available to us suggests that the change proceeded as follows
   (cf. Fuß 2005, ch. 5 & 6 for details):

(i)   a.   V + enclitic (inversion contexts) $\rightarrow$ V + Agr + *pro*

       b.   Bavarian: extension to other C-related elements such as
            complementizers, relative pronouns etc.

       c.   Extension of the new ending to verbs in clause-final positions

Table 1. Agr suffixes (pres. indic.) and subject clitics in present-day Bavarian

	Verbal agreement	Subject clitics
1sg	-Ø	*e*
2sg	-*st*	–
3sg	-*t*	*a/s*
1pl	-*an(d)*	-*ma*
	-*ma* (in some varieties)	–
2pl	-*ts*	–
3pl	-*an(d)*	*s*

A brief look at Table 1 suggests that pro-drop becomes available in those contexts where the clitic paradigm exhibits a gap. So the relevant empirical generalization seems to be that null subjects are licensed in case there is no visible weak form stored in the lexicon. Of course this raises the question of how we can formally explain the apparent correlation between the availability of empty subjects and apparent gaps in the paradigm of weak forms. The basic idea I want to pursue is that the availability of null subjects is systematically linked to properties of the paradigm of overt (weak) pronouns (see also Neeleman & Szendrői 2007). More precisely, let us assume that a null spell-out of weak pronouns becomes available if there is no competing overt candidate available that realizes a greater subset of the underlying morphosyntactic features than the null spell-out. In other words, partial pro-drop is analyzed as an instance of deblocking, where a less specified phonological realization, namely zero, becomes available in the absence of a more specified competing form. We shall now take a closer look at the specifics of this proposal.

Following Holmberg (2005) and Neeleman & Szendrői (2007), I assume that the phenomenon of pro-drop in fact does not involve a special empty category like *pro*. Adopting a Late Insertion approach where syntactic nodes are associated with phonological features post-syntactically (cf. e.g. Halle & Marantz 1993), null arguments are then analyzed as regular pronominal forms that fail to be associated with a phonological matrix at the point of Vocabulary Insertion. More precisely, null pronouns are a particular variant of weak pronominal forms (cf. Cardinaletti & Starke

1999). Adopting a minimalist approach,[6] let us assume that the syntactic structure corresponding to a weak pronoun is a category $D^{min/max}$ (D^0 in traditional X-bar notation) that is both minimal (since it is non-complex) and maximal (since it is merged in a thematic specifier position and does not project) at the same time (Chomsky 1995: 249, Roberts 2007). In contrast, full tonic pronouns are analyzed as DPs (cf. e.g. Chomsky 1995: 249). A pronominal $D^{min/max}$ is characterized by the binary features [±pronominal], [±anaphoric] (cf. Chomsky 1982), a definiteness feature ([+definite]), and a set of φ-features (at least person, number, and case). A relevant pronunciation rule (or, Vocabulary item) that gives rise to a null weak subject pronoun would then look like (13) (see also Neeleman & Szendrői 2007: 682):[7]

(13) $[_{Dmin/max} +\text{pronominal}, -\text{anaphoric}, +\text{NOM}] \leftrightarrow \emptyset$

(13) states that a $D^{min/max}$ with a feature combination that is characteristic of a pronominal subject can be realized as zero at the point where Vocabulary Insertion applies. Following Neeleman & Szendrői we may assume that (13) is universally available as the unmarked realization of weak/clitic pronominal forms. In other words, the setting [+pro-drop] is taken to be the default parameter option.[8] Of course, (13) must be complemented by

6. See e.g. Uriagereka (1995), Cardinaletti & Starke (1999), Déchaine & Wiltschko (2002), Neeleman & Szendrői (2007), and Holmberg (2005) for more elaborate theories of the internal structure of pronominal elements.

7. As pointed out by Denis Delfitto to me, it is somewhat unexpected that a supposedly universal spell-out rule such as (12) makes reference to a language-specific feature such as [±NOM]. This shortcoming could perhaps be repaired by making use of more basic features, adopting an analysis in which traditional case features are decomposed into a set of semantic primitives (Jakobson 1936 [1971], Bierwisch 1967). Alternatively, we may assume that the relevant case specification is in fact [+DEFAULT CASE] (Denis Delfitto, p.c.), giving rise to null subjects in languages where the relevant default case is nominative, as for example in Bavarian. Furthermore, in languages that lack the category of case altogether (such as Chinese), we would then perhaps expect that (13) becomes available for all kinds of arguments, giving rise to 'radical' pro-drop (Neeleman & Szendrői 2007). At first sight, this seems to be borne out by the facts, but obviously, more research is necessary to substantiate this claim. For expository reasons, however, I will stick to the case specification [±NOM] in what follows.

8. This assumption is supported by the observation that cross-linguistically – even in non-null subject languages like English – children produce null subjects at an early stage of the acquisition process (cf. Hyams 1986 and the following quote taken from O'Grady 1997: 83, "[...] subject drop seems to be a universal feature of syntactic development [...]").

insertion rules that determine the realization of overt pronouns. Note that the Vocabulary items that are associated with individual overt forms are usually much more specific than the very general rule (13), compare the following insertion rule that realizes the 3sg.masc subject clitic *a* in Bavarian:[9]

(14) $[_{\text{Dmin/max}}$ +pronominal, –anaphoric, +NOM, –PSE, –PL, +MASC]
    $\leftrightarrow$ /a/

Under the assumption that the insertion of phonological material is governed by conditions that favor more specified over less specified Vocabulary items (cf. the Elsewhere Condition of Kiparsky 1973, 1982, or Halle's 1997 Subset Principle),[10] the availability of 'overt' forms such as (14) – all things being equal – blocks the null spell-out of weak pronouns (i.e., the relevant $D^{\text{min/max}}$), since the overt forms clearly realize more morphosyntactic features than the Vocabulary item in (13).[11]

Note that the availability of overt tonic pronouns does not prevent the application of (13), since they correspond to a different syntactic structure (by assumption, DP) and therefore do not compete with the null form for realizing pronominal $D^{\text{min/max}}$ (note that this implies that Vocabulary Insertion may target not only terminal nodes, but also larger pieces of phrase structure, in the case at hand a whole DP node, cf. Weerman & Evers-Vermeul 2002, Neeleman & Szendröi 2007). That is, the availability of the full pronoun 2sg /du:/ does not interfere with the null realization of

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9. Here and below, I make use of the binary system of person features proposed in Halle (1997), which includes the features [±participant in speech event] and [±author in speech event] (henceforth [±PSE] and [±AUTH]).

10. *The Subset Principle* (Halle 1997: 428)
    The phonological exponent of a Vocabulary item is inserted into a morpheme in the terminal string if the item matches all of a subset of the grammatical features specified in the terminal morpheme. Insertion does not take place if the Vocabulary item contains features not present in the morpheme. Where several Vocabulary items meet the conditions for insertion, the item matching the greatest number of features specified in the terminal morpheme must be chosen.

11. See Neeleman & Szendröi (2007) for an analysis of 'radical' pro-drop in languages such as Chinese based on the assumption that both insertion rules may optionally apply in case they satisfy different parts of the Elsewhere Principle ('realize more features' vs. 'realize bigger chunks of structure'). However, note that this analysis is based on the assumption that null forms correspond to phrasal categories (DP), contrasting with the view adopted here that clitic pronouns are significantly smaller structural units (i.e., D^0s).

a pronominal 2sg $D^{min/max}$ (as a result of (13)) in Bavarian, since the relevant insertion rules target different nodes in the syntactic structure:[12]

(15)   [$_{DP}$ +pronominal, –anaphoric, +NOM, –AUTH, +PSE, –PL] ↔ /du:/

Under these assumptions, the development of partial referential pro-drop in the history of Bavarian can be accounted for in terms of deblocking: At the point where the continuing phonological erosion of subject clitics made available a reanalysis of these forms as inflectional formatives, the clitics affected by this process dropped out of the grammar, giving rise to gaps in the paradigm of weak pronominal forms. The disappearance of clitic forms caused the emergence of a previously blocked option, namely the null spell-out of pronominal $D^{min/max}$ due to the application of the (universally available) insertion rule (13). Under this approach, the content of the phonologically empty pronoun can be recovered via the particular agreement morphology associated with C in Bavarian, which unambiguously signals person and number of the subject (see Weiß 2002 for a related proposal).[13]

This analysis makes an interesting prediction: The development of new clitic forms that fill the relevant gaps in the paradigm as new phonological realizations of pronominal $D^{min/max}$ is expected to lead to the loss of (partial) pro-drop in the relevant contexts. Some evidence that this prediction is correct comes from recent developments that have affected the grammar of Colloquial Finnish (cf. Vainikka & Levy 1999).

Despite the fact that Standard Finnish exhibits a fully distinctive verbal agreement paradigm (similar to Italian), null subjects are limited to first and second person (examples taken from Holmberg 2005: 539):

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12. See Fuß (2009) for a slightly different approach where it is assumed that Vocabulary items related to strong forms cannot be inserted into a weak pronominal D-head due to a feature mismatch (phonological exponents of strong forms are specified for additional features such as [+deictic, +stress] which are not part of the feature content of weak pronominal D).

13. Notice that the presence of complementizer agreement does not automatically give rise to referential pro-drop. A case in point is West Flemish, which has complementizer agreement in all persons and numbers (1sg, 1pl, 3pl: /-n/, 2sg, 2pl, 3sg: /-t/), but does not exhibit pro-drop (cf. Haegeman 1992). Under the above assumptions, the absence of referential null subjects can be attributed to the fact that West Flemish has a complete series of clitic subject pronouns, which blocks a null realization of pronominal $D^{min/max}$ (moreover, note that the inflection associated with C is highly syncretic and therefore fails to unambiguously identify a null subject).

(16)   a.   (*Minä*) *puhun*   *englantia.*
          I   speak-1sG English

       b.   (*Sinä*) *puhut*   *englantia.*
          you   speak-2sG English

       c.   *(*Hän*) *puhuu*   *englantia.*
          he/she speak-3sG English

       d.   (*Me*) *puhumme englantia.*
          we   speak-1PL English

       e.   (*Te*) *puhutte*   *englantia.*
          you speak-2PL English

       f.   *(*He*) *puhuvat*   *englantia.*
          they speak-3PL English

As noted by Vainikka & Levy (1999), Colloquial Finnish differs from the standard variety in that it requires the presence of overt pronouns (i.e., pro-drop has been completely lost). Interestingly, this change is accompanied by a set of further changes that affected the shape of pronouns (and the inventory of agreement markers):

Table 2. Pronouns and subject agreement in Colloquial Finnish[14]

	Pronouns	Agreement
1sg	*minä → mä*	*-n*
2sg	*sinä → sä*	*-t*
3sg	*hän → se*	-V
1pl	*me*	*-tAAn*
2pl	*te*	*-tte*
3pl	*he → ne*	-V

As can be gathered from Table 2, Colloquial Finnish has developed new reduced forms for 1sg and 2sg (in addition, the 3rd person pronouns 3sg *hän* and 3pl *he* are replaced by the relevant demonstrative forms, *se* and

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14. "-V" represents an empty vowel that is similar to the preceding vowel and results in vowel lengthening. Capital "A" represents a vowel undergoing vowel harmony.

ne, respectively). The new shortened forms are generally unstressed (cf. e.g. Holmberg & Nikanne 2006: 5). Furthermore, the 1pl verbal agreement suffix has been replaced by *-tAAn*, originally an impersonal passive affix, and the 3rd person endings have fallen together. Vainikka & Levy suggest that these changes have disrupted the systematic similarities between 1st and 2nd person pronouns and agreement endings. As a consequence, the latter lose their argumental status, leading to the loss of (partial) pro-drop in Colloquial Finnish (see Koeneman 2007 for an alternative analysis that attributes the loss of pro-drop to the loss of a fully distinctive agreement paradigm).

However, it seems that the facts from Colloquial Finnish can possibly also be subsumed under the account of (partial) pro-drop developed above. More specifically, at least in the case of 1sg and 2sg, the loss of pro-drop can be directly related to the development of new weak forms that are more specified than a null spell-out of pronominal $D^{min/max}$ and therefore block the latter. Of course, further research is necessary to substantiate this conjecture, in particular concerning the status of the 1st and 2nd person plural forms, which at first sight seem to be identical to the relevant forms in the standard language. Interestingly, there are some observations concerning the system of pronouns in spoken Finnish that suggest that the inventory of forms is in fact larger that it appears at first sight. More to the point, it appears that in spoken Finnish, there are differences in vowel length that discriminate between stressed and unstressed forms (cf. e.g. the description of the vernacular spoken in Jyväskylä on http://www.cc.jyu.fi/~tojan/rlang/finn2.htm). Anne Vainikka (p.c.) informed me that in her dialect (the variety spoken in Tampere), there are three kinds of pronouns: (i) an unstressed variant with a short vowel (the default case), (ii) a stressed form with a long vowel, and (iii) an unstressed form with a long vowel. Thus, it seems that in the Tampere variety, a short vowel systematically indicates a special weak form that differs in vowel length from the stressed variant and can therefore be analyzed as an overt spell-out of weak pronominal $D^{min/max}$ (blocking the competing null realization). These observations concerning the emergence of separate series of clearly identifiable weak pronominal forms in spoken Finnish are suggestive that the particular approach to null subjects developed here might be on the right track.

In this section, I have proposed that in the history of Bavarian, partial pro-drop developed as a side-effect of the reanalysis of clitic forms that turned into agreement markers. It has been suggested that this change led to gaps in the paradigm of clitic pronouns, which made available a null

realization of pronominal $D^{min/max}$ in exactly those contexts where the reanalysis took place. In more formal terms, the emergence of null subjects has been analyzed in terms of deblocking of an underspecified Vocabulary item (i.e., /Ø/), the insertion of which was formerly blocked by the availability of more specified overt candidates.[15] This analysis is supported by the observation that spoken Colloquial Finnish is character- ized by a loss of null subjects which can be traced back to the development of a new series of overt weak pronouns blocking a null-spell out of pro- nominal $D^{min/max}$ (still available in the standard language).

At this point, it is still unclear why the reanalysis of subject clitics in Bavarian did not affect all forms in a wholesale fashion (possibly giving rise to full-fledged pro-drop), but was rather confined to a subset of the paradigm. This question is addressed in more detail in the following section.

2.2. Morphological factors governing the reanalysis of pronouns

In Fuß (2005), it is argued that the limitations on the reanalysis of pro- nouns (and the concomitant rise of null subjects) that we have observed in Bavarian can be attributed to properties of the morphological com- ponent of grammar. More specifically, it is assumed that during language acquisition, the storage of inflectional markers is sensitive to blocking effects, in the sense that the learner scans the input for the most specified phonological realization of any given set of inflectional features. This assumption is related to the notion that the realization of inflectional features (syntactic terminal nodes) by phonological material involves a competition between Vocabulary items in which the most specified candi- date wins out over its competitors (the Subset Principle, Halle 1997). In Fuß (2005: 233) the relevant principle is phrased as follows:

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15. Of course, this section has left many important questions unaddressed. For example, more has to be said about the possible implications for the analysis of agreement-related pro-drop in languages like Italian, or the question of how we can account for the general non-availability of pro-drop in languages such as English. However, note that full pro-drop languages such as Italian or Spanish typically lack a series of clitic subject pronouns, which is expected under the approach advocated here. Furthermore, the behavior of non-null subject languages may possibly be accounted for under the assumption that languages like English lacks the syntactic category of pronominal D, that is, the output of the syntax does not contain a structure that can be realized by the insertion rule (13). I leave these matters for future research.

(17)   *Blocking Principle (BP)*
      If several appropriate phonological realizations of a given
      morpheme are attested in the Primary Linguistic Data, the form
      matching the greatest subset of the morphosyntactic features
      included in the morpheme must be chosen for storage in the lexicon.

The BP ensures that the development of new inflectional formatives can affect only weak/underspecified slots of the paradigm, replacing Vocabulary items that are not distinctive. Thus, the transition from clitic pronouns to agreement markers is licensed if (i) a clitic meets all necessary conditions for a reanalysis (advanced phonological erosion, adjacency to the finite verb etc.) and (ii) the resulting inflectional marker realizes a greater subset of the relevant agreement features than the existing agreement morphology. In what follows, it is shown that the limited distribution of complementizer agreement and pro-drop in Bavarian can be directly related to the workings of the BP. This is demonstrated below in some detail for the changes that affected the 2pl and 1pl forms.[16]

Taking a closer look at the developments that took place in Bavarian, it becomes apparent that the development of the new endings 2pl -*ts*, 1pl -*ma* served to eliminate syncretisms in the verbal agreement paradigm. The development of 2pl -*ts* (orig. 2pl ending -*t* + clit. 2pl -*(ē)s*) began in the 13th century (in Northern and Middle Bavarian, cf. Wiesinger 1989: 72f.), eliminating syncretism of 3sg with 2pl:

Table 3. Verbal agreement paradigms (pres. indic.), 13th century Bavarian

	Old paradigm	New paradigm
1sg	-Ø	-Ø
2sg	-*st*	-*st*
3sg	-*t*	-*t*
1pl	-*an*	-*an*
2pl	-*t*	-*ts*
3pl	-*ant*	-*ant*

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16. For reasons of time and space, I do not go into the details of the earlier development giving rise to 2sg -*st*. In Fuß (2005: 235ff.), it is argued that the change in question was promoted by the fact that the resulting form was unambiguously specified for verbal mood (indicative) and therefore proceeded in line with the BP.

A look at the shaded paradigm cells reveals that prior to the reanalysis, the agreement suffixes for 3sg and 2pl were identical. The reanalysis of the 2pl clitic -*s* as an enlargement of the existing agreement formative 2pl -*t* removed this syncretism from the paradigm, giving rise to fully distinctive 2pl and 3sg markers.

In most Bavarian dialects, final -*t* was lost in the 3pl, leading to homophony of 3pl and 1pl forms (cf. Wiesinger 1989). As already discussed above, in some dialects, this syncretism was resolved by the development of 1pl -*ma* as a new agreement ending, compare the shaded lines in Table 3:

Table 4. Verbal agreement paradigms (pres. indic.), late 18th century Bavarian

	Old paradigm	New paradigm
1sg	-Ø	-Ø
2sg	-*st*	-*st*
3sg	-*t*	-*t*
1pl	-*an*	-*ma*
2pl	-*ts*	-*ts*
3pl	-*an*	-*an*

These observations suggest that a reanalysis of clitics as agreement markers is connected to the elimination of syncretisms in the paradigm. This is exactly what is expected if we adopt the assumption that the acquisition (and grammaticalization) of inflectional morphology is governed by blocking constraints that operate during language acquisition and scan the input for the most specific realization of a given agreement morpheme. In the case at hand, the new agreement suffixes 2pl -*ts*, 1pl -*ma* satisfy the Blocking Principle due to the fact that they realize a greater subset of agreement features than their respective predecessors (cf. Fuß 2005 for details): First, -*ts* is specified for both person ([–AUTH, +PSE]) and number ([pl]), while the previous ending -*t* is the completely underspecified elsewhere form (which is used in both 3sg and 2pl contexts). Second, -*ma* signals person ([+AUTH]) and number ([pl]), while -*an* is merely specified for number ([+pl], occurring in 1pl and 3pl contexts). Thus, the BP makes available a diachronic explanation of why the rise of new agreement formatives – giving rise to referential pro-drop – took place in some contexts, but not in others.

What is the significance of these findings for the theory of pro-drop? First of all, the changes that affected Bavarian suggest that pro-drop does not necessarily develop in a general fashion for all persons and numbers (when the richness of verbal inflection crosses a certain threshold), contrary to what is expected under standard assumptions. Instead, it appears that the development of null subjects is confined to contexts where the paradigm of clitic forms exhibits gaps due to the reanalysis of pronominal elements as agreement markers. More precisely, it appears that the emergence of (partial) pro-drop involves an intricate interaction between morphological blocking and deblocking: First, the development of null subjects is sensitive to properties of the series of weak/clitic pronouns (i.e., deblocking of the null spell-out via gaps in the paradigm), and second, it is indirectly related to properties of verbal agreement, namely via morphological mechanisms that promote a reanalysis of subject clitics if this results in more distinctive agreement markers (due to blocking effects that favor more specified Vocabulary items).

Note that these findings do not falsify common agreement-related theories of pro-drop entirely. They merely suggest that these approaches cannot be maintained in a strong way (e.g., positing that referential pro-drop is available *only* in the presence of a fully distinctive agreement paradigm). Rather, it seems that languages may develop restricted pro-drop properties linked to contexts where pronominal elements turn into agreement markers. In other words, an empirically more adequate generalization would be that full referential pro-drop in all persons and numbers requires rich verbal agreement, while partial pro-drop does not. Accordingly, it seems that the assumption that pro-drop operates in an all-or-nothing fashion must be abandoned. Still, we may wonder whether a typological change from [–pro-drop] to full fledged referential pro-drop can be the result of a wholesale reanalysis of pronouns affecting larger parts of the agreement paradigm (either in one fell swoop or one item after the other). A possible case in point are recent developments that have been affecting the grammar of Colloquial French.

3.   Colloquial French

It is a well-known fact that the grammar of Colloquial French exhibits a number of properties that sets it apart from the standard language. These differences also concern the realization of subject pronouns. Authors such as Roberge (1990), Friedemann (1997), or Fonseca-Greber (2000) argue

that Colloquial French exhibits an ongoing transition from a grammar without null subjects to a +pro-drop grammar.[17] Similar to Bavarian, this development involves a change in which subject clitics turn into (prefixal) agreement markers. This transition is manifested by a set of properties in which the subject 'clitics' of Colloquial French differ from those of the standard language (cf. Wartburg 1970, Ashby 1977, Harris 1978, Lambrecht 1981, Roberge 1990, Auger 1993, 1994a, Fonseca-Greber 2000, Fonseca-Greber & Waugh 2003, Gerlach 2002; however see de Cat 2005 for an opposing view):[18]

First of all, the subject clitics are obligatory and cannot be replaced by full tonic pronouns (historically an oblique form).[19] Furthermore, sentences

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17. Apparently, a similar development has taken place in a number of Northern Italian dialects, cf. Vanelli (1987), Renzi (1992).

18. In the history of French, we can observe a cluster of changes involving pronouns, verbal agreement and the pro-drop property, which is cyclic in nature (Bally 1965, Guiraud 1968, Wartburg 1970, Ashby 1977, Harris 1978, Lambrecht 1981, Roberge 1990):

   (i) distinctive verbal Agr/pro-drop (OFr.)
   (ii) loss of Agr/loss of pro-drop (Middle Fr., 14th–16th century)
   (iii) subject pronouns lose emphatic force and become clitics (15th–18th century)
   (iv) clitics are reanalyzed as verbal agreement/rise of pro-drop (ongoing change)

   Note that according to Wartburg (1970: 72) and Harris (1978: 113), the rise of overt pronouns (in Middle French) is not directly related to the loss of agreement morphology, but rather is linked to word order properties and prosodic factors (in fact, Harris claims that subject pronouns became obligatory prior to the erosion of the agreement system). In this paper, I will not go into the syntactic details of this historical development. Givón (1976) claims that the rise of new agreement markers in French involves a reanalysis of a former topic left dislocation structure. However, there are at least some indications that the relevant syntactic environment was *not* topic left dislocation, but rather a structure where a reinforcing full form (e.g. the oblique 1sg form *moi*) has been added to the non-stressable clitic for reasons of emphasis/focus (cf. Guiraud 1968, Wartburg 1970, Ashby 1977 for details).

19. Friedemann (1997) claims that doubling is merely optional in all non-standard varieties of French. However, Fonseca-Greber & Waugh (2003), examining a corpus of contemporary spoken French, observe that there are no cases where a tonic 1st or 2nd pronoun occurs without a clitic (i.e, doubling seems to obligatory). With 3rd person forms, doubling is slightly less frequent (3sg clitics are present in 91.5% of the relevant cases, 3pl forms in 93.6%). A similar finding is reached by Gerlach (2002).

with apparent clitic doubling generally favor a basic, non-dislocated interpretation:

Colloquial French

(18) a. (*Moi*) je   porte la   table.
          me   CLIT.1SG carry the table

'I carry the table.'

  b. *Moi* *(*je*)   porte la   table.
          me   CLIT.1SG carry the table

'I carry the table.'   (Gerlach 2002: 224)

In conjoined clauses, subject clitics must be repeated before each finite verb (cf. Lambrecht 1981, Fonseca-Greber & Waugh 2003), while standard French exhibits the typical elision of pronominal forms under identity with the subject of the first conjunct clause:

Standard French

(19) *Il mange et   boit   comme un cochon.*
      he eats and drinks like   a pig

Colloquial French

(20) *I   mange et   *(*i*) boit   comme un cochon.*
      he eats and he drinks like   a   pig

The preverbal 'clitics' occupy a fixed position relative to the verb stem. For example, they fail to undergo subject-verb inversion in matrix interrogatives, in contrast to the subject clitics of the standard language. This is shown in (21) and (22) (Friedemann 1997: 3f.):

Standard French

(21) *Où   est-il parti?*
      where is=he gone

'Where did he go to?'

Colloquial French

(22) *Où   il-est parti?*
      where he-is gone

'Where did he go to?'

These properties are commonly taken to suggest that the 'clitics' are in fact better analyzed as instances of preverbal agreement markers. As a consequence, clauses without a subject double must be analyzed as instances of pro-drop.

However, there are some indications that the transition from pronouns to agreement markers is not yet fully completed. Several authors have noted that quantified expressions, indefinite NPs, and wh-phrases cannot occur in a doubling construction similar to (18) above (cf. e.g. Roberge 1990: 95, Friedemann 1997: 125):

Colloquial French
(23) **Personne il a   parlé.*
        nobody   he has spoken

     'Nobody spoke.'

Colloquial French
(24) **Un ami   il   est toujours là.*
       a   friend he is   always   there

      'A friend is always there.'

Colloquial French
(25) **Qui il aime la   tarte*?
       who he likes the pie

      'Who likes the pie?'

However, examples similar to (23) and (24) are well-formed in other non-standard varieties of French (Picard, Pied-Noir), which suggests that in the latter, the grammaticalization of prefixal agreement is more advanced (cf. Roberge 1990, Friedemann 1997, Auger 1994b, 2003):

(26) *Personne i(l) sait   qui c'est   leur mère.*
       nobody   he knows who that-is their mother

      'Nobody knows who is their mother.'

                                    (Pied-Noir, Friedemann 1997: 125)

(27) *Un homme il vient*.
       a   man   he comes   (Pied-Noir, Roberge 1990: 97)

(28) *Chacun   il a   sa chimère.*
       everybody he has his spleen

      'Everybody has a spleen.'   (Picard, Friedemann 1997: 125)

While doubling of wh-phrases is ruled in Pied-Noir (Roberge 1990: 120), a default 3sg.masc clitic is present in wh-questions in Picard; furthermore, subject-relatives exhibit resumptive subject clitics (Auger 1994b, 2003):

(29) *tchèche qu' il   a   dit   qu' i folloait nin finir*?
who   that he has said that it had-to of-it to-finish

'Who said we had to put an end to it?'   (Picard, Auger 2003: 5)

(30) *inne grosse féme   éd   Tours qu' al étoait rouge...*
a   fat   woman from Tours that she was   red

'a fat woman from Tours who was red...' (Picard, Auger 2003: 5)

Moreover, corpus studies carried out by Fonseca-Greber (2000) and Fonseca-Greber & Waugh (2003) show that doubling is extending to contexts with quantified NPs in 'normal' Colloquial French as well.

To sum up, it appears that different non-standard varieties exhibit different stages of a development in which clitics turn into prefixal agreement markers, eventually giving rise to a grammar with null subjects. To the extent that the reanalysis is completed, the evidence available to us suggests that the emergence of pro-drop in Colloquial French can possibly be treated on a par with the developments in Bavarian, that is, in terms of the deblocking of a null spell-out in those contexts where the reanalysis of clitic forms has given rise to gaps in the paradigm of weak/clitic forms (note that the resulting system of agreement marking is sufficiently distinctive to recover the content of the missing argument).

Again, the changes affecting the status of the subject clitics can be related to properties of the existing agreement paradigm. It appears that there are significant differences between the individual subject clitics. Most importantly, it seems that not all subject clitcs are obligatorily present (cf. Gerlach 2002):

Table 5. Presence of subject clitics in Colloquial French

1sg	obligatory
2sg	obligatory
3sg	optional
1pl	obligatory (*on*)
2pl	optional
3pl	optional

Doubling of full forms is obligatory in the contexts of 1sg, 2sg, and 1pl (where *on* has replaced *nous* in the spoken language), while it is merely optional in the other contexts. Thus, the grammaticalization process lags

behind for 3rd person forms and 2pl. Interestingly, there seems to be some relation between the obligatory presence of the 'clitic' forms and properties of the existing suffixal agreement morphology. Apparently, at least in non-3rd person contexts, clitics are obligatory in case the verbal inflection is underspecified for subject agreement features (Gerlach 2002: 225f.):

Table 6. Subject agreement in written/spoken French

	Written language	Phonetic form
1sg	porte	[pɔʁt]
2sg	portes	[pɔʁt]
3sg	porte	[pɔʁt]
1pl	(on) porte	[pɔʁt]
	(nous) portons	not used in Colloquial French
2pl	portez	[pɔʁ'te:]
3pl	portent	[pɔʁt]

Note that only the 2pl ending /-e:/ signals person and number of the subject; elsewhere we find the completely underspecified zero ending. This can be linked to the distribution of clitics in the following way (Gerlach 2002):

(31) *Verbal agreement and the distribution of subject clitics*
      In Colloquial French, subject clitics are obligatory only

    (a) in non-third person contexts and

    (b) if they serve to express φ-features not marked by the existing
        suffixal agreement morphology.

Similar to Bavarian, the distribution of the obligatory agreement marking forms can be attributed to the workings of the Blocking Principle: The grammaticalization of new agreement markers (and the rise of the null subjects) is triggered only in contexts where the new inflections are clearly more specified than the existing elsewhere marker /Ø/:

(32) a. [+AUTH, +PSE, −PL] ↔ /ʒə/ (1sg)

    b. [−AUTH, +PSE, −PL] ↔ /tʏ/ (2sg)

    c. [+AUTH, −PSE, + PL] ↔ /ɔ̃/ (1pl)

In those varieties where the 2pl clitic is still merely optional, its different behavior can be attributed to the fact that the existing agreement morphology is still distinctive, which hinders a reanalysis of the subject clitic. However, note that based on a study of a corpus of spoken French, Fonseca-Greber & Waugh (2003) claim that the 2pl subject clitic *vous* has also developed into a fully morphologized agreement marker. This can possibly explained as the result of analogical extension on the model of the other former clitics.

A more serious question concerns the status of 3rd person forms (3sg.fem *elle*, 3sg.masc *il*, 3pl.fem *elles*, 3pl.masc *ils*). At first sight, they should qualify for a reanalysis as agreement markers from the viewpoint of the Blocking Principle. Obviously, they are specified for person, number and gender, so they should meet the condition that they be more distinctive than the existing zero marker. However, in what follows, it is argued that upon closer inspection, the 3rd person forms turn out to be less specified than they appear to be.

To begin with, we will take a second look at the putative person specification of the relevant pronouns. It has repeatedly been pointed out in the literature that '3rd person' should actually be treated as the 'non-person', that is, 3rd person forms are better analyzed as being underspecified for person features (cf. Benveniste 1950, 1966, Halle 1997, Noyer 1997, Harley and Ritter 2002, Cysouw 2003, among many others; however, see Trommer 2006 for an opposing view). If this view turns out to be correct, the 3rd person forms fail to be more specified than the existing zero marker with respect to the category of person. Accordingly, at least in this respect, they do not qualify as more distinctive forms that may outrank the existing markers due to blocking effects.[20]

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20. Note that cross-linguistically, 3rd person verbal agreement is much less common than 1st and 2nd person agreement. See Fuß (2005) for an explanation of this fact in terms of the Blocking Principle, making use of the assumption that 3rd person forms are inherently underspecified for [person]. As pointed out by one anonymous reviewer, the general differences (w.r.t. grammaticalization processes) between 1st/2nd person on the one hand and 3rd person on the other are also often attributed to the fact that speaker and hearer are the most salient participants in a speech event (cf. e.g. Mithun 1991, Ariel 2000). Under this perspective, it is assumed that 1st and 2nd person pronouns are more readily reducible to unstressable clitics, affixes, and eventually zero since the reference of these pronominal forms can be easily deduced from the immediate discourse situation (in contrast to 3rd person forms, which denote a 'more remote' referent).

What about the number specification? On the face of it, the apparent contrast between 3sg *il*/*elle* and 3pl *ils*/*elles* should suffice to mark the clitics as more specified than the existing zero marker. Note, however, that the number marking of the plural forms is only perceivable if the verb following the clitic begins with a vowel. Hence, the number marking of the 3rd person forms is actually less salient than it appears at first sight. In some varieties, the visibility of number marking is further weakened by the tendency to use a reduced form *i*(*l*) for all 3rd person contexts (sometimes accompanied by 3pl *eux*, cf. Ashby 1977, Fonseca-Greber & Waugh 2003: 102):[21]

(33) *Mes petites cousines   eux   i-savaient. . .*
        my   little   cousins.FEM 3PL.MASC 3-knew
        'My little cousins knew. . .'   (Fonseca-Greber & Waugh 2003: 102)

So it appears that the set of contexts where the number marking on the 3rd person pronouns is really visible is actually quite small, presumably too small to count as robust evidence for the purposes of the Blocking Principle.

Finally, let us turn to gender. Interestingly, we can observe that there is a tendency in Colloquial French to use *i*(*l*) as a general marker of 3rd person that can also be used in 3sg.fem contexts. This is illustrated by the following examples taken from Wartburg (1970: 74) and Ashby (1977: 68), respectively. It seems likely that the use of masculine forms in non-masculine contexts has obscured the gender distinctions originally signaled by the subject clitics.[22]

(34) a. *Ma femme il est venu.*
            my wife   he is   come
            'My wife came.'

      b. *Ma soeur i'chante.*
            my sister 3-sing
            'My sister is singing.'

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21. Similarly, the forms for 3sg and 3pl clitics have merged in Picard and Pied-Noir French (e.g. Pied-Noir 3sg.masc.sg, 3sg.masc.pl. /i/, 3sg.fem.sg, 3sg.fem.pl /ɛl/), cf. Roberge (1990: 191) on Pied Noir and Auger (2003: 5) on Picard.

22. Cf. Fuß (2005: 255f.) for an alternative explanation (based on the assumption that φ-features are organized into a feature geometry) according to which the grammaticalization of gender agreement requires the presence of number marking for all persons.

1 Thus, we can conclude that the 3rd person clitics are actually less distinc-
2 tive than it appears at first sight. This impedes their being reanalyzed as
3 agreement markers (due to their reduced visilibilty to the workings of the
4 Blocking Principle). The fact that the 3rd person forms have not yet fully
5 grammaticalized into agreement markers in Colloquial French is pre-
6 sumably also the reason why doubling of quantified expressions (which
7 are usually 3rd person NPs) is still ruled out – in contrast to other non-
8 standard varieties such as Pied-Noir or Picard.
9 Summing up, it has been shown that Colloquial French (and other non-
10 standard varieties of French) exhibits an ongoing change in which pre-
11 verbal subject clitics turn into prefixal agreement markers, giving rise to
12 pro-drop properties formerly absent in the grammar. Again, we witness a
13 development in which pro-drop does not evolve at once for all persons
14 and numbers. Rather, the rise of null subjects is intimately related to the
15 reanalysis of individual subject clitics as agreement markers, which can
16 be analyzed in terms of deblocking of the null spell-out due to the ongoing
17 erosion and eventual loss of clitic forms. Similar to Bavarian, the transi-
18 tion of clitics into agreement markers is linked to properties of the existing
19 agreement paradigm (new markers are more specified). When the change
20 is eventually completed for all persons and numbers, this may give rise to
21 full agreement-related referential pro-drop in (future) Colloquial French.
22 In the next section, we will examine an alternative path to pro-drop in
23 all persons and numbers that crucially does not depend on properties of
24 verbal agreement.

4. Alternative paths toward null arguments in creole languages

29 In the theoretical literature on creole languages, it is occasionally claimed
30 that creoles (similar to pidgins) generally lack null pronouns (cf. e.g.
31 Muysken 1981, Roberts 1999, among others). However, there is actually
32 quite some work on creoles that directly contradicts this claim. To men-
33 tion but a few, Kouwenberg (1990) and Kouwenberg & Muysken (1995:
34 215f.) show that Papiamento exhibits at least non-referential empty pro-
35 nouns (in impersonal constructions and with weather verbs), DeGraff
36 (1993) argues for the existence of pro-drop in Haitian Creole, and Veenstra
37 (1994) claims that Saramaccan has developed agreement-related referential
38 pro-drop due to the reanalysis of pronominal subjects, which is reminiscent
39 of the changes discussed in section 2 and 3 above. The following discussion
40 draws heavily on Lipski (2001), who provides a detailed overview of the

evolution of null arguments in Romance-based creoles. Taking a brief look at the development of discourse-oriented pro-drop in Mauritian Creole and Philippine Creole Spanish, it is argued that in these creoles, null arguments evolved on the model of substrate influence from (and/or intense contact with) Austronesian languages.

4.1.   Mauritian Creole

Mauritian Creole (MC) is a French-based creole that developed after slaves from different parts of Africa and Madagascar were brought to Mauritius roughly between 1715 and 1810 (when the slave trade was abolished). Present-day MC exhibits a variety of pro-drop phenomena (Syea 1993, Adone 1994a, 1994b). First, it exhibits null subjects in impersonal constructions, where the missing argument corresponds to an expletive (or quasi-argument), or an indefinite (generic) pronoun:

(35)   *Ti   fer   fre   yer*.
       TNS make cold yesterday

       '[It] was cold yesterday.'   (Adone 1994a: 114)

(36)   *Lôtâ,   ti   degrad karo kan ar pios*.
       long ago TNS cleared canefields with a pickaxe.

       'Long ago, [people] cleared cane fields with a pickaxe.'
                              (Baker and Corne 1982: 89f.)

In addition, MC allows referential null subjects under certain conditions. Apparently, a referential (or, definite) interpretation of the null element is only possible if the identity of the missing argument can be readily recovered from the immediate discourse context, typically in answers to questions, as in (37):[23]

(37)   Question: *ki   Pyer pe   fer*?
                 what Peter ASP   do

                 'What is Peter doing?'

       Answer: *pe   petir labutik*.
                 asp   paint shop

                 '(He) is painting the shop.'   (Syea 1993: 93)

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23. Adone (1994a) notes that MC also exhibits referential null objects, albeit to a lesser extent.

However, according to Adone (1994a, 1994b), null subjects may also occur in contexts other than answers, as long as the missing argument can be identified with a prominent discourse topic, mostly the speaker (see also Syea 1993: 93). But, as shown by (40), 3rd person subjects may also be left out. That is, there is no principled contrast between different persons, in contrast to what has been observed for Bavarian and Non-Standard French above.[24]

(38) *Pu   return dañ peis   bieñto*.
      MOD return in   country soon

      '[I] will go back to the country soon.'   (Adone 1994b: 33)

(39) *Pu   repar sa   sime la   dimeñ*.
      MOD repair DET road DET tomorrow

      '[We] will repair this road tomorrow.'   (Adone 1994a: 114)

(40) *Ti   boykot en   paket kreol dañ travay*.
      TNS boycot QUA many creole in   work

      '[He] boycotted many creoles in his work.'   (Adone 1994b: 33)

If there is no appropriate antecedent available in the discourse context, the missing argument is interpreted as a specific indefinite (such as English *someone*), cf. Syea (1993: 93):

(41) *fin koke Pyer so loto*.
      ASP steal Peter his car

      '(Someone) stole Peter's car.'   (Syea 1993: 92)

There is general agreement that the licensing and interpretation of null subjects is dependent on the presence of preverbal Tense/Mood/Aspect (TMA) particles, which presumably realize an inflectional head (*pu*, *fin*, and *ti* in the above examples).[25] In the absence of an overt TMA particle, a missing subject can only be interpreted as a generic indefinite pronoun (such as English *one* or the generic use of *people*, see also (36) above), cf. Syea (1993: 94):

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24. Note that null subjects may only refer to humans in MC (Syea 1993: 93).
25. Mauritian Creole has an elaborate system of TMA markers, which is made up of six basic markers (*ti* [+anterior/past], *pe* [progressive], *pu* [definite future], *ava* [indefinite future], *fin* [completive], and *fek* [immediate completive]) that can be used to express at least twelve fine-grained temporal and aspectual differences, see Adone (1994a: ch. 6) for details.

(42) *van puasõ dã bazar*.
 sell fish in market
 'Fish is sold in the market.' (Syea 1993: 92)

If a generic interpretation is not possible, an overt pronoun must be used in the absence of a TMA marker (Syea 1993: 94f.):

(43) a. *van puasõ.
 sell fish

 b. *li van puasõ*.
 he sell fish
 'He sells fish.'

Accordingly, we may conclude that in MC, the licensing of referential null subjects is connected to the presence of an overt TMA marker (i.e., an overt realization of INFL).[26] The missing argument is identified in relation to a prominent discourse topic. In more formal terms, this can be analyzed in terms of a coindexation relation between the null element and a discourse topic, presumably mediated by an abstract operator that occupies a left-peripheral A'-position (cf. Adone 1994a). Furthermore, we ask whether the empty category can be subsumed under the analysis proposed above, that is, whether it can be analyzed as a null realization of a regular weak/clitic pronoun. Unfortunately, it is not clear to me whether MC exhibits overt clitic pronouns (which may block a null spell-out) or not. However, there is another piece of evidence that suggests that we do not deal with null pronouns here. In embedded clauses, we can observe a curious restriction on the interpretation of null arguments. As shown in (44), an embedded null subject cannot be coreferential with the subject of the matrix clause:

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26. The hypothesis that referential null subjects are licensed by the TMA markers is supported by facts from language acquisition. Adone (1994a) identifies three stages in the acquisition of null subjects in Mauritian Creole. At the first stage, children use a lot of empty subjects (>60%), often in contexts where they are not allowed in the target grammar. The second stage shows a sharp decline in the frequency of null subjects (between 10% and 30%). This change is accompanied by the rise of various TMA markers. The third stage is characterized by a slight increase of null subjects and a more systematic use of TMA markers. Interestingly, from this stage on, null subjects and TMA markers systematically co-occur, that is, the children have correctly acquired the licensing conditions on null subjects of the target grammar.

(44)   *Zañ$_i$ dir [Ø$_i$ fin al lakaz].
         John say   ASP go home

'John$_i$ says (he$_i$) has gone home.'   (Adone 1994a: 114)

If the missing argument were a null spell-out of a regular pronoun, we would expect that it can be coreferential with the matrix subject (in fact, that is the preferred interpretation of the English translation of (44)). We can therefore conclude that the empty category must be another kind of element. Adone (1994a) argues that it is a variable bound by an abstract operator that has moved into the left periphery of the embedded clause. As a result, the ungrammaticality of (44) can be attributed to a violation of Principle C of the Binding theory. However, as pointed out by Lipski (2001), it is perhaps more adequate to analyze the null argument as a null constant (*nc*, Rizzi 1994). According to Rizzi (1994), *nc* is an empty category with the properties [–pronominal, –anaphoric, –variable]. It differs from a wh-trace (i.e., a variable) in that it does not range over a set of values; rather, its interpretation is fixed to an antecedent given in the immediate discourse context (presumably mediated via an abstract operator). Hence, it is also a referential expression and may not be A-bound, ruling out its use in embedded contexts such as (44).

Turning now to the historical development of null arguments in MC, we can observe that early stages of MC[27] exhibited empty expletives, but lacked the kind of referential null subjects found in the present-day language (cf. Adone 1994b). This suggests that the rise of pro-drop is a rather recent development. In other words, it appears that the pro-drop properties in question did not develop during the original genesis of MC, but are rather the result of a later change. Pro-drop in MC cannot be attributed to its lexifier language (17th and 18th century French), cf. Adone (1994b). Furthermore, Lipski (2001) claims that it cannot be the result of substrate influence, since the relevant languages (several Bantu languages and Malagasy) do not exhibit null subjects. However, in what follows, I will argue that the presence of null subjects in MC can in fact be linked to (substrate) influence from Malagasy, contra Lipski (2001). To substantiate this claim, we will first review some basic properties of this language.

Malagasy is an Austronesian language with basic VOS word order. It is characterized by the voice system typical of many Austronesian languages (cf. e.g. Keenan 1976 on Malagasy, Schachter 1976, 1990, Kroeger 1993

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27. The creolization of MC took place roughly between 1730 and 1770, cf. Baker and Corne (1986).

on Tagalog): distinctive verbal morphology triggers the promotion of one of the verb's arguments to clause-final position. The relevant affixes on the verb indicate the thematic role of the promoted argument. The promoted argument is usually interpreted as a familiarity topic (in this way, the voice system serves to implement topic continuity in a discourse, cf. e.g. Hopper 1979, Cooreman, Fox & Givón 1988). In the following examples, the promoted argument and the relevant parts of voice morphology are marked by underlining (AT = actor topic; TT = theme topic; CT = circumstantial topic):

(45) a.   <u>Man</u>-asa   ny   lamba   amin'   ny   savony   <u>ny reny</u>.
           AT-wash   the   clothes   with   the   soap   the   mother

      b.   Sasa-<u>n'</u>   ny   reny   amin'   ny   savony   <u>ny   lamba</u>.
           wash-TT   the   mother   with   the   soap   the   clothes

      c.   <u>An</u>-asa-<u>n'</u>   ny   reny   ny   lamba   <u>ny   savony</u>.
           CT-wash-CT   the   mother   the   clothes   the   soap

           'The mother washes the clothes with the soap.'

                                                       (Sabel 2003: 229f.)

Importantly, the special voice system seems to make available a particular type of discourse-oriented pro-drop. As shown in (46), the promoted argument (but no other argument) can be left out in Malagasy (Pearson 2005 and Hyams et al. 2006: 21):

(46) a.   *Mamangy an'i   Tenda* (*izy*).
           AT.visit   OBJ-DET   Tenda   he

           '(He) is visiting Tenda.'

      b.   *Mamangy* *(*azy*) *i   Naivo*.
           AT.visit   him   DET   Naivo

           'Naivo is visiting (him).'

      c.   *Vangian' i   Naivo* (*izy*).
           TT.visit   DET   Naivo   he

           '(Him), Naivo is visiting.'

      d.   *Vangian-* *(*-ny*) *i   Tenda*.
           TT.visit   he   DET   Tenda

           'Tenda, (he) is visiting.'

In other words, it appears that the null subjects of Malagasy (i) are licensed by a special morphology (the voice morphology on the verb which indicates the thematic role of the missing argument) and (ii) are identified in relation to an element which figures prominently in the discourse. Note that this is reminiscent of the conditions on referential pro-drop in MC, where definite null subjects (i) are licensed by a special inflectional morphology (TMA markers) and (ii) are identified in relation to a prominent discourse topic (e.g., subject of a previous clause, speaker etc.).

Bearing these similarities in mind, one might entertain the idea that the null arguments in MC evolved on the model of the particular type of discourse-oriented pro-drop illustrated in (46) (it is a well-known fact that creoles often exhibit strong structural similarities with their substrate languages, rather than with their lexifier languages, cf. e.g. Crowley 1992: 268). The pro-drop properties found in MC can then possibly be attributed to substrate influence from Malagasy in the following way.[28] When learners of MC continued to be confronted with Malagasy (or, rather, Malagasy-influenced) input data that exhibited null arguments, they adapted the licensing mechanism (via distinctive verbal morphology that indicates the thematic role of the missing argument) to the impoverished inflectional system of a creole language. In the absence of an elaborate voice system, the TMA markers became associated with the formal licensing of pro-drop. In a similar way, the mechanisms of identifying the relevant null element (presumably a null constant) carried over from Malagasy to MC, with the missing argument being interpreted as coreferent with the most prominent discourse topic. Note that in Malagasy this process is facilitated by structural means (by promoting the discourse topic to clause-final position, together with the distinctive voice morphology), while MC has to resort to conditions that limit the search space to the immediate discourse context (the speaker, or the subject of the previous clause, most often a question). In the next section, it is shown that a related development can be observed in Chabacano, a Spanish-based creole spoken in the Philippines.

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28. See Lipski (2001) for an alternative explanation based on the assumption that null subjects initially developed in embedded contexts via the reanalysis of a variable bound by a left-dislocated element (*e* in (i)):

(i) [*sa madam la*]$_i$ *mo rapel   e*$_i$ *ti   vini.*
     this lady   DET I remember   TNS come
     'This lady, I remember she came.'   (Adone 1994a: 115)

4.2. Chabacano

'Chabacano' is a cover term for a number of different Spanish-based creoles spoken in the Philippines. The most well-known variety of Chabacano is Zamboangueño, the local vernacular of Zamboanga City in southwestern Mindanao. Other areas where Chabacano is (or was) wide-spread include the Manila Bay, in particular Cavite and Ternate. The following description of Chabacano is based on Lipski (2001) (see also Steinkrüger 2004, 2006).

As many other creoles, Chabacano lacks verbal inflection apart from a small class of prefixal TMA markers.[29] However, it exhibits two remarkable traits that are quite rare among creoles, namely basic VSO order and (referential) null subjects, as illustrated by the following examples:

(47) *Null expletive and indefinite subjects*

    a. *Ya tiene hente na mundo.*
        TNS be   people in world
        '(There) were already people in the world.'   (Lipski 2001: 2)

    b. *Ta   siña kanila "English".*
        TNS/ASP teach them   English
        '(One) teaches them English.'   (Lipski 2001: 6)

    c. *Ya tira konele.*
        TNS shoot him
        'He was shot.' (lit., '(One) shot him.')   (Lipski 2001: 6)

(48) *Null referential subjects*

    a. *Ya man-engkwentro konele na tyangge.*
        TNS meet   her in market
        '(I) met her in the market.'

    b. *Ya abla kon el muher...*
        TNS say to   the woman
        '(He) said to the woman...'

    c. *Despues ay anda na eskwela.*
        then   MOD go   to school
        'Then (we) would go to school.'

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29. The set of TMA markers consists of *ta* (imperfective), *ya* (perfective), *ay/di* (irrealis), and *kabá* (completive). See Steinkrüger (2006) for details.

d. *Tiene mas di nobenta años, pero fuerte pa.*
   be more than ninety years but strong still

   '(They) are more than ninety years old,
   but (they) are still strong.' (Lipski 2001: 4f.)

Similar to MC, null subjects are available for all persons and numbers.[30] Another important parallel is the fact that the missing argument must be identified in relation to an element in the immediate discourse context, compare the following quote taken from Lipski (2001: 3):

"In each case, the referent of the null subject is recoverable from the preceding context, usually being the same as the last-occurring overt pronoun. The usage of null subjects is most common in response to a question, with appropriate shift of pronominal reference."

However, in contrast to MC, it seems that the TMA-markers are not instrumental in the licensing of referential null subjects, as indicated by (47d), where the missing argument can only be interpreted as referring to a certain group of people (despite the lack of a preverbal TMA marker).

According to Lipski (2001), Chabacano exhibits a restriction on the interpretation of embedded null subjects that resembles the relevant constraint in MC: An embedded null subject may not be coreferential with the (overt) subject of the matrix clause when the latter occurs in immediate postverbal position (i.e., the canonical subject position). Again, this can be taken to indicate that the empty category cannot be a null pronoun, but must rather be analyzed as a null constant bound by an abstract (discourse) operator occupying a left-peripheral A'-position.[31]

It is generally assumed that a number of (morpho-) syntactic properties of Chabacano (such as basic VSO order, aspects of the inventory of pro-

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30. Lipski (2001) shows that Chabacano exhibits null direct objects as well.

31. Lipski (2001) claims that coreference of an embedded null subject and a matrix subject becomes possible if the latter is fronted to a preverbal (clause-initial) position (similar to Tagalog, fronting is used to focus or (re-) introduce a discourse referent in Chabacano). He then proposes an analysis according to which an embedded null subject (which is not treated as an *nc*) must be c-commanded by the matrix subject, which by assumption is only possible if the latter is fronted to preverbal (clause-initial) position. However, it remains unclear why the relevant licensing condition cannot also be fulfilled by matrix subjects in postverbal position (from which they should also be able to c-command the lower null subject). Furthermore, it is doubtful whether the example cited by Lipski in favor of this claim (p. 4f., his example (3ah)) actually

nouns and the system of marking grammatical functions, cf. Steinkrüger 2006 and Barrios 2006) can be traced back to substrate influence of and, more recently, language contact with the neighboring Austronesian languages, in particular Tagalog and Cebuano. Moreover, Lipski (2001) suggests that the kind of discourse-oriented pro-drop exhibited by Chabacano is also due to influence from Tagalog and Cebuano. Both these languages exhibit the typical Austronesian voice system (cf. Schachter 1976, 1990, Kroeger 1993), that is, the promoted argument's thematic role is indicated by voice morphology on the verb. In contrast to Malagasy, however, the promoted argument does not occupy a designated position, but is marked by (case) particles (*ang* for common nouns and *si* for personal names), compare the following examples from Tagalog:[32]

(49) a. *B-<u>um</u>-ili <u>ang</u> <u>lalake</u> ng isda sa tindahan.*
buy.AT SUBJ man OBJ fish OBL shop
'The man bought fish in a/the shop.'

b. *B-<u>in</u>-ili ng lalake <u>ang</u> <u>isda</u> sa tindahan.*
buy.TT OBJ man SUBJ fish OBL shop
'A/the man bought the fish in a/the shop.'

c. *B-<u>in</u>-ili -<u>an</u> ng lalake ng isda <u>ang</u> <u>tindahan</u>.*
buy.LocT OBJ man OBJ fish SUBJ shop
'A/the man bought fish in the shop.'

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shows what it is supposed to show. More precisely, (i) seems to be rather a paratactic structure without real embedding. Therefore, the missing arguments are actually not embedded subjects, and the possibility of coreference with 'those kids' is compatible with an analysis of the empty categories in terms of null constants (which must be A-free):

(i) *Aquel mga bata sabe man-comprehend, entendé kosa ki*
those kids know understand understand what they

ta lé, y sabe eskribi.
TNS/ASP read and know write

'Those kids know how to understand, (they) understand what they read, and (they) know how to write.'

32. For expository reasons I labeled the relevant case particles SUBJ=subject, OBJ=object, and OBL=oblique. Note that this is slightly misleading, since the *ang*-marked NP arguably does not represent the grammatical subject of the clause, but rather is to be identified with the discourse topic (cf. e.g. Schachter 1990).

The *ang/si* marked phrase is normally interpreted as definite and familiar (and as the, continuing topic of the discourse, cf. e.g. Hopper 1979, McGinn 1988, and Cooreman, Fox & Givón 1988).[33] As in Malagasy, the promoted argument (marked by *ang/si*) can be left out in Tagalog, giving rise to a similar type of discourse-oriented pro-drop (McGinn 1988: 278), where the null realization of a given argument seems to be licensed by morphological means that serve to identify the thematic role of the missing element:

(50) *B-<u>um</u>-ili* (*siya*)   *ng isda sa   tindahan*.
      buy.AT (SUBJ-he) OBJ fish OBL shop

      '(He) bought fish in a/the shop.'

Given that Chabacano 'borrowed' quite a number of grammatical traits from its Austronesian neighbors, it is quite possible that the null arguments found in Chabacano also developed on the model of the kind of discourse-oriented pro-drop that we can observe in Tagalog (and Cebuano), where the licensing (and identification) of the argument gap is linked to the voice morphology indicating the argument's thematic role. This conjecture is further supported by the observation that Chabacano and MC exhibit similar restrictions on the identification of null pronouns (subject of the previous clause, speaker etc.) via the immediate discourse context. As noted above, this is possibly related to the absence of structural means to mark the discourse topic (i.e., the typical Austronesian voice system) in the creole language.

In contrast to MC, however, it is apparently not possible to link the licensing of referential null subjects to the presence of TMA markers in Chabacano (cf. (47d) above). This raises the question of whether there is an alternative structural means in Chabacano that can take up the role of the Austronesian voice morphology in the licensing/identification of null arguments. A possible candidate that comes to mind is the set of pre-nominal markers (or, case particles) that are used to identify the grammatical function of the verb's arguments in Chabacano (*si* for agents/subjects that are personal names, *kon* for direct objects, *para di* for datives, *na* for locations; furthermore note that there are different series of pronouns for subjects/agents and objects, the latter carrying the marker *kon*, e.g. *konele* 'him/her'). Due to the fact that Chabacano has no grammatical function

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33. Non-topic themes are interpreted as indefinite, while other non-topic arguments may be interpreted as definite or indefinite, cf. Schachter (1990: 940f.).

changing devices such as passive, these markers do not only indicate the grammatical function of the element they modify, but also (at least roughly) its thematic role. In this way, they fulfill a function which is quite similar to the combined effects of voice morphology and case particles in languages like Tagalog (i.e., indicating the thematic role of a given argument). One could suppose that this suffices to license a null realization of arguments (as a null constant) in Chabacano, which mimics the relevant licensing conditions that hold in Tagalog/Cebuano, albeit with the impoverished inflectional means of a creole language (see also Lipski 2001).

5. Conclusions

This paper has discussed different historical paths along which languages can develop pro-drop phenomena, taking into account the rise of agreement-related pro-drop of the 'European' type as well as the emergence of discourse-oriented pro-drop in two selected creole languages.

First, drawing on data from Bavarian and Non-Standard French, it has been shown that referential null subjects may develop as a side-effect of the transition from pronouns to agreement markers. Adopting a Late Insertion approach, it has been argued that the specifics of this change can be analyzed in terms of an intricate interplay between blocking and deblocking phenomena in morphology. It has been demonstrated that the reanalysis of clitic pronouns as agreement affixes is governed by blocking effects which require new agreement markers to be more specified than existing inflectional markers (which accounts for the restrictions on the contexts where this change applies). The concomitant emergence of pro-drop has been analyzed as an instance of deblocking, where a (by assumption universally available) null realization of weak pronouns becomes available due the loss of a more specific spell-out (the former clitic forms). The relevant observations suggest that agreement-related null subjects do not develop in an across-the-board fashion, but are initially restricted to those contexts where pronouns turn into agreement markers, contradicting the relevant diachronic predictions of standard approaches to (agreement-related) pro-drop (note that when the development of new inflections is completed for all persons and numbers, this may give the impression that full referential pro-drop is linked to rich verbal agreement, as is presumably the case in present-day Non-Standard French).

An alternative path toward pro-drop can be observed in Mauritian Creole (MC) and Chabacano (Philippine Spanish Creole), which devel-

oped a form of discourse-oriented pro-drop due to language contact with Austronesian languages (Malagasy and Tagalog, respectively). Apparently, the relevant type of discourse-oriented pro-drop develops for all persons and numbers at once (including objects), with a preference for arguments that can readily be recovered from the immediate discourse context (again giving rise to a special role of 1st person pronouns), in contrast to null subjects which arise due to the grammaticalization of agreement morphology. It has been argued that in the creoles under investigation, null arguments emerged when learners adapted the licensing/ identification mechanisms of the source languages to the impoverished inflectional means typical of creole languages. Furthermore, the observed parallels between MC and Chabacano suggest that the kind of pro-drop characteristic of Malagasy and Tagalog, where the topic/null argument is marked by structural means (via verbal voice morphology), represents a very salient feature which might be more easily adopted under language contact than other forms of pro-drop.

References

Abraham, Werner
  1995   *Deutsche Syntax im Sprachenvergleich.* Tübingen: Gunter Narr. Adone, Dany (1994a). *The Acquisition of Mauritian Creole.* Amsterdam: John Benjamins.
Adone, Dany
  1994b   "Creolization and language change in Mauritian Creole." In: Dany Adone & Ingo Plag (eds.), *Creolization and Language Change*, 23–43. Tübingen: Niemeyer.
Altmann, Hans
  1984   "Das System der enklitischen Personalpronomina in einer mittelbairischen Mundart." *Zeitschrift für Dialektologie und Linguistik* 51.2, 191–211.
Anderson, Stephen
  1986   "Disjunctive ordering in inflectional morphology." *Natural Language and Linguistic Theory* 4, 1–31.
Anderson, Stephen
  1992   *A-morphous morphology*. Cambridge: Cambridge University Press.
Ariel, Mira
  2000   "The development of person agreement markers: from pronoun to higher accessibility markers." In *Usage-based Models of Language*, S. Kemmer and M. Barlow (eds.), 197–261. Stanford: CSLI.

Ashby, William
   1977   *Clitic Inflection in French: An Historical Perspective*. Amsterdam:
                 Rodopi.
Auger, Julie
   1993   "More evidence for verbal agreement marking in Colloquial
                 French." In William J. Ashby, Marianne Mithun, Giorgio
                 Perissinotto, and Eduardo Raposo (eds.) *Linguistic perspectives
                 on the Romance languages*. Amsterdam: John Benjamins, 177–
                 98.
Auger, Julie
   1994a   *Pronominal clitics in Quebec Colloquial French: A morphological
                 analysis*. PhD dissertation, University of Pennsylvania (IRCS
                 report 94–29).
Auger, Julie
   1994b   "On the nature of subject clitics in Picard." In M. L. Mazzola
                 (ed.), *Issues and Theory in Romance Linguistics*, 159–179.
                 Washington, DC: Georgetown University Press.
Auger, Julie
   2003   "Pronominal clitics in Picard revisited." In R. Núñez-Cedeño,
                 L. López, and R. Cameron (eds.), *A Romance Perspective on
                 Language Knowledge and Use*, 3–20. Amsterdam: Benjamins.
Axel, Katrin & Helmut Weiß
   this volume   "Pro-drop in the history of German. From Old High German to
                 the modern dialects."
Baker, Philip & Chris Corne
   1986   "Universals, substrata and the Indian Ocean Creoles." In
                 P. Muysken & N. Smith (eds.), *Substrata versus Universals in
                 Creole Genesis*, 163–183. Amsterdam: Benjamins.
Bally, Charles
   1965   *Linguistique générale et linguistique française* (4th edition). Bern.
Barrios, Aireen
   2006   "Austronesian elements in Philippine Creole Spanish." Paper
                 presented at Tenth International Conference on Austronesian
                 Linguistics. 17–20 January 2006. Puerto Princessa City, Palawan,
                 Philippines. (http://www.sil.org/asia/philippines/ical/papers.html)
Bayer, Josef
   1984   "COMP in Bavarian syntax." *The Linguistic Review* 3, 209–274.
Benveniste, Emile
   1950   La phrase nominale. *Bulletin de la Societé Linguistique de Paris*,
                 46: 19–36.
Benveniste, Emile
   1966   *Problèmes de linguistique générale*. Paris: Editions Gallimard.
Bierwisch, Manfred
   1967   "Syntactic features in morphology: general problems of so-called
                 pronominal inflection in German. In: *To Honor Roman Jakobson:*

Essays on the Occasion of His Seventieth Birthday, 239–270. The Hague: Mouton.

Braune, Wilhelm and Ingo Reiffenstein
  2004   *Althochdeutsche Grammatik I.* (15th edition). Tübingen: Niemeyer.
Brinkmann, Henning
  1931   *Sprachwandel und Sprachbewegung in althochdeutscher Zeit.* Jena.
Cardinaletti, Anna & Michal Starke
  1999   "The typology of structural deficiency: a case study of the three classes of pronouns." In: Henk van Riemsdijk (ed.), *Clitics in the Languages of Europe*, 145–232. Berlin: de Gruyter.
Chomsky, Noam
  1982   *Some Concepts and Consequences of the Theory of Government and Binding.* Cambridge, Mass.: MIT Press.
Chomsky, Noam
  1995   *The Minimalist Program.* Cambridge, Mass.: The MIT Press.
Cooreman, Ann, Barbara Fox, and Talmy Givón
  1988   "The discourse definition of ergativity: A study in Chamorro and Tagalog texts." In R. McGinn (ed.), *Studies in Austronesian Linguistics*, 387–425. Athens, Ohio: Center for Southeast Asia Studies.
Crowley, Terry
  1992   *An Introduction to Historical Linguistics.* Oxford: Oxford University Press.
Cysouw, Michael
  2003   *The Paradigmatic Structure of Person Marking.* Oxford: Oxford University Press.
De Cat, Cécile
  2005   "French subject clitics are not agreement markers." *Lingua* 115, 1195–1219.
Déchaine, Rose-Marie & Martina Wiltschko
  2002   "Decomposing pronouns." *Linguistic Inquiry* 33, 409–442.
DeGraff, Michel
  1993   "Is Haitian Creole a pro-drop language?". In F. Byrne and J. Holm (eds.), *Atlantic Meets Pacific*, 71–90. Amsterdam: Benjamins.
Fonseca-Greber, Bonnie
  2000   *The Change from Pronoun to Clitic to Prefix and the Rise of Null Subjects in Spoken Swiss French.* Doctoral dissertation, University of Arizona, Tucson.
Fonseca-Greber, Bonnie and Linda R. Waugh
  2003   "The subject clitics of Conversational European French: Morphologization, grammatical change, semantic change, and change in progress. In R. Núñez-Cedeño, L. López, and R. Cameron (eds.), *A Romance Perspective on Language Knowledge and Use*, 99–117. Amsterdam: Benjamins.

Friedemann, Marc-Ariel
    1997   *Sujets Syntaxiques: Positions, Inversions et* pro. Frankfurt: Peter
                Lang.
Fuß, Eric
    2004   "Diachronic clues to pro-drop and complementizer agreement in
                Bavarian." In: Eric Fuß & Carola Trips (eds.), *Diachronic Clues
                to Synchronic Grammar*, 59–100. Amsterdam: John Benjamins.
Fuß, Eric
    2005   *The Rise of Agreement. A Formal Approach to the Syntax and
                Grammaticalization of Verbal Inflection*. Amsterdam: John
                Benjamins.
Fuß, Eric
    2009   "Partial pro-drop = zero exponence + deblocking." Ms., Goethe-
                University Frankfurt.
Gerlach, Birgit
    2002   *Clitics between syntax and lexicon*. Amsterdam: John Benjamins.
Givón, Talmy
    1976   "Topic, pronoun, and grammatical agreement." In: Charles N.
                Li (ed.), *Subject and Topic*, 149–188. New York: Academic
                Press.
Guiraud, Pierre
    1968   *L'ancien français* (3rd edition). Paris.
Haegeman, Liliane
    1992   *Theory and Description in Generative Syntax: A Case Study in
                West-Flemish*. Cambridge: Cambridge University Press.
Haider, Hubert
    1994   "(Un-)heimliche Subjekte – Anmerkungen zur Pro-drop Causa,
                im Anschluß an die Lektüre von Osvaldo Jaeggli & Kenneth J.
                Safir (eds.), *The Null Subject Parameter*." *Linguistische Berichte*
                153, 372–385.
Halle, Morris & Alec Marantz
    1993   "Distributed Morphology and the pieces of inflection." In:
                Samuel J. Keyser & Ken Hale (eds.), *The View from Building
                20*, 111–176. Cambridge: The MIT Press.
Halle, Morris
    1997   "Distributed Morphology: Impoverishment and Fission." In:
                B. Bruening, Y. Kang, and M. McGinnis (eds.), *MIT Working
                Papers in Linguistics 30: PF: Papers At the Interface*, 425–450.
                Cambridge, Mass.: Department of Linguistics and Philosophy,
                MIT.
Harley, Heidi & Elizabeth Ritter
    2002   "Structuring the bundle: A universal morphosyntactic feature
                geometry." In: Horst J. Simon & Heike Wiese (eds.), *Pronouns –
                grammar and representation*. Amsterdam: John Benjamins, 23–39.

Harnisch, Rüdiger
1989   "Die sogenannte 'sogenannte Flexion der Konjunktionen'. Ein Paradigma aus der Bavaria thuringica." In *Bayerisch-österreichische Dialektforschung*, E. Koller, W. Wegstein, and N. R. Wolf (eds.), 283–290. Würzburg: Königshausen & Neumann.

Harris, Martin
1978   *The Evolution of French Syntax. A Comparative Approach*. London: Longman.

Holmberg, Anders
2005   "Is there a little pro? Evidence from Finnish." *Linguistic Inquiry* 36.4, 533–564.

Holmberg, Anders & Urpo Nikanne
2006   "Subject doubling in Finnish: The role of deficient pronouns." http://www.meertens.knaw.nl/projecten/edisyn/Online_proceedings/Paper_Holmberg-Nikanne.pdf

Hopper, Paul
1979   "Aspect and foregrounding in discourse." In Talmy Givón (ed.), *Syntax and Semantics 12: Discourse and Syntax*, 213–241. New York: Academic Press.

Hyams, Nina
1986   *Language Acquisition and the Theory of Parameters*. Dordrecht: Reidel.

Hyams, Nina, Dimitris Ntelitheos, and Cecile Manorohanta
2006   "Acquisition of the Malagasy Voicing System: Implications for the adult grammar". Ms., UCLA.

Jaeggli, O. & K. Safir. 1989. "The null subject parameter and parametric theory." In Jaeggli, O. & K. Safir (eds.), *The Null Subject Parameter*. Dordrecht: Kluwer, 1–44.

Jakobson, Roman
1936 [1971] "Beitrag zur allgemeinen Kasuslehre: Gesamtbedeutung der russischen Kasus." Reprinted in: *Selected Writings* (vol. II: *Word and Language*). The Hague: Mouton (originally in *Travaux du Cercle Linguistique de Prague* VI, 240–299).

Keenan, Edward
1976   "Remarkable subjects in Malagasy." In: Charles N. Li (ed.), *Subject and Topic*, 249–301. New York: Academic Press.

Kiparsky, Paul
1973   "'Elsewhere' in phonology." In Stephen Anderson & Paul Kiparsky (eds.). *A festschrift for Morris Halle*. New York: Holt, Rinehart and Winston, 93–106.

Kiparsky, Paul
1982   "Word-formation and the lexicon." In: F. Ingemann (ed.). *Proceedings of the 1982 Mid-America Linguistics Conference*. University of Kansas.

Koeneman, Olaf

2007   "Deriving the difference between full and partial pro-drop." In: Ackema, Peter, Patrick Brandt, Maaike Schoorlemmer & Fred Weerman (eds.), *Arguments and Agreement*, 76–100. Oxford: Oxford University Press.

Kollmer, Michael. 1987. *Die schöne Waldlersprach*. Bd. I-III. Prackenbach: Kollmer (Eigenverlag).

Kouwenberg, Silvia

1990   "Complementizer PA, the finiteness of its complements and some remarks on empty categories in Papiamentu." *Journal of Pidgin and Creole Languages* 5.1, 39–51.

Kouwenberg, Silvia and Pieter Muysken

1995   "Papiamento." In J. Arends, P. Muysken, and N. Smith (eds.), *Pidgeons and Creoles. An Introduction*, 205–218. Amsterdam: Benjamins.

Kroeger, Paul

1993   *Phrase Structure and Grammatical Relations in Tagalog*. Stanford: CSLI Publications.

Lambrecht, Knud

1981   *Topic, antitopic and verb-agreement in non-standard French*. Pragmatics and beyond vol. II: 8. Amsterdam: John Benjamins.

Lipski, John

2001   "Null subjects in (Romance-derived) creoles: Routes of evolution." Ms., University of New Mexico.

Lühr, Rosemarie

1984   "Reste der athematischen Konjugation in den germanischen Sprachen." In: Jürgen Untermann & Bela Brogyanyi (eds.), *Das Germanische und die Rekonstruktion der Indogermanischen Ursprache*. pp. 25–90.

McGinn, Richard

1988   "Government and case in Tagalog." In R. McGinn (ed.), *Studies in Austronesian Linguistics*, 275–293. Athens, Ohio: Center for Southeast Asia Studies.

Mithun, Marianne

1991   "The development of bound pronominal paradigms." In *Language Typology 1988: Typological Models in Reconstruction*, W. P. Lehmann and H.-J. Jakusz Hewitt (eds.), 85–104. Amsterdam: John Benjamins.

Moulton, William

1944   "Scribe γ of the Old High German Tatian translation." *PMLA* 59: 2, 307–334.

Muysken, Pieter

1981   "Creole tense/mood/aspect systems: The unmarked case." In P. Muysken (ed.), *Generative Studies on Creole Languages*, 181–199. Dordrecht: Foris.

Neeleman, Ad & Kriszta Szendrői
    2007   "Radical pro-drop and the morphology of pronouns." *Linguistic Inquiry* 38.4, 671–714.
Noyer, Rolf
    1997   *Features, Positions, and Affixes in Autonomous Morphological Structure*. New York: Garland.
Nübling, Damaris
    1992   *Klitika im Deutschen. Schriftsprache, Umgangssprache, alemannische Dialekte.* Tübingen: Gunter Narr.
O'Grady, William
    1997   *Syntactic Development*. Chicago: Chicago University Press.
Paul, Hermann
    1879   "Beitraege zur Geschichte der Lautentwickelung und Formenassociation." *Beiträge zur Geschichte der deutschen Sprache und Literatur* 6, 538–560.
Pearson, Matthew
    2005   "The Malagasy subject/topic as an A'-element." *Natural Language and Linguistic Theory* 23, 381–457.
Pfalz, Anton
    1918   "Suffigierung der Personalpronomina im Donaubairischen." Republished in: Peter Wiesinger.
Pfalz, Anton
    1983   *Die Wiener dialektologische Schule. Grundsätzliche Studien aus 70 Jahren Forschung. Wiener Arbeiten zur germanischen Altertumskunde und Philologie* 23, 217–235.
Renzi, L.
    1992   "I pronomi soggetto in due varietà substandard: fiorentino e français avancé." *Zeitschrift für Romanische Philologie* 108, 72–98.
Rizzi, Luigi
    1994   "Early null subjects and root null subjects." In: Teun Hoekstra & Bonnie Schwartz (eds.), *Language Acquisition Studies in Generative Grammar*, 151–176. Amsterdam: John Benjamins.
Roberge, Yves
    1990   *The Syntactic Recoverability of Null Arguments*. Kingston & Montreal: McGill-Queen's University Press.
Roberts, Ian
    1993   *Verbs and Diachronic Syntax. A Comparative History of English and French*. Dordrecht: Kluwer.
Roberts, Ian
    1999   "Verb movement and markedness." In M. DeGraff (ed.), *Language Creation and Language Change*: *Creolization, Diachrony and Development*, 287–329. Cambridge, Mass.: MIT Press.
Roberts, Ian
    2007   "A deletion analysis of null subjects: French as a case study." Ms., University of Cambridge.

Roberts, Ian & Anna Roussou
    2003   *Syntactic Change. A Minimalist Approach to Grammaticaliza-tion.* Cambridge: Cambridge University Press.

Rohrbacher, Bernhard
    1999   *Morphology-driven Syntax: A theory of V-to-I Raising and Pro-drop.*" Amsterdam: Benjamins.

Sabel, Joachim
    2003   "Malagasy as an optional multiple wh-fronting language." In: Cedric Boeckx & Kleanthes K. Grohmann (eds.), *Multiple Wh-Fronting*, 229–254. Amsterdam: John Benjamins.

Schachter, Paul
    1976   "The Subject in the Philippine Languages: Topic, Actor, Actor-Topic or None of the Above." In Charles N. Li (ed.), *Subject and Topic*, Academic Press, New York, 491–518.

Schachter, Paul
    1990   "Tagalog." In B. Comrie (ed.), *The World's Major Languages*. Oxford: OUP, 936–958.

Schirmunski, V.M.
    1962   *Deutsche Mundartkunde. Vergleichende Laut- und Formenlehre der deutschen Mundarten*. Berlin: Akademie Verlag.

Sommer, Thomas
    1994   *Flexionsmorphologie des Verbs im althochdeutschen Tatian*. München: Tuduv.

Steinkrüger, Patrick
    2004   "Philippine Spanish Creoles." In: Philipp Strazny (ed.), *Encyclo-pedia of Linguistics*. New York: Routledge.

Steinkrüger, Patrick
    2006   "The puzzling case of Chabacano: Creolization, substrate, mix-ing and secondary contact." Paper presented at Tenth Inter-national Conference on Austronesian Linguistics. 17–20 January 2006. Puerto Princessa City, Palawan, Philippines. (http://www.sil.org/asia/philippines/ical/papers.html)

Syea, Anand
    1993   "Null subject in Mauritian Creole and the pro-drop parameter." In: Francis Byrne & John Holm (eds.), *Atlantic Meets Pacific. A Global View of Pidginization and Creolization*, 91–102. Amster-dam: John Benjamins.

Trommer, Jochen.
    2006   "Third-person marking in Menominee." Ms., University of Leipzig.

Uriagereka, Juan
    1995   "Aspects of the syntax of clitic placement in western Romance." *Linguistic Inquiry* 26, 79–123.

Vanelli, L.
    1987   "I pronomi soggetto nei dialetti italiani settentrionali dal Medio Evo a oggi." *Medioevo Romanzo XII.*

Vainikka, Anne & Yonata Levy
  1999   "Empty subjects in Finnish and Hebrew." *Natural Language and Linguistic Theory* 17, 613–671.
Veenstra, Tonjes
  1994   "The acquisition of functional categories: The creole way." In Dany Adone & Ingo Plag (eds.), *Creolization and Language Change*, 99–117. Tübingen: Niemeyer.
Vikner, Sten
  1997   "V-to-I movement and inflection for person in all tenses." In L. Haegeman (ed.), *The New Comparative Syntax*, 189–213. London: Longman.
Wartburg, Walther von
  1970   *Einführung in die Problematik und Methodik der Sprachwissenschaft* (3rd edition). Tübingen: Niemeyer.
Weerman, Fred & Jaqueline Evers-Vermeul
  2002   "Pronouns and case." *Lingua* 112, 301–338.
Weiß, Helmut
  1998   *Die Syntax des Bairischen. Studien zur Grammatik einer natürlichen Sprache*. Tübingen: Niemeyer.
Weiß, Helmut
  2002   "Agr-in Comp and partial pro-drop." Ms., Universität Regensburg.
Weiß, Helmut
  2005   "Inflected complementizers in Continental West Germanic Dialects." *Zeitschrift für Dialektologie und Linguistik* 72, 148–166.
Wiesinger, Peter
  1989   *Die Flexionsmorphologie des Verbums im Bairischen*. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
Zehetner, Ludwig
  1985   *Das bairische Dialektbuch*. München: Beck Verlag.
Zwart, Jan-Wouter
  1993   "Clues from dialect syntax: Complementizer agreement." In: Werner Abraham & Josef Bayer (eds.). *Dialektsyntax. Linguistische Berichte Sonderheft* 5, 246–270.