
Radical Pro drop and the Role of Syntactic Agreement in Colloquial Singapore English*

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Draft: September 21, 2010

1. Introduction

This paper discusses the origin of the so-called radical pro drop phenomenon and the relevance of syntactic agreement to this phenomenon in Colloquial Singapore English (henceforth, CSE), an English-lexified contact language spoken in Singapore. We first provide evidence that CSE presents a genuine counterexample to Neeleman and Szendrői's (2007) generalization that the radical pro drop requires agglutinative morphology on personal pronouns because CSE exhibits the radical pro drop characteristic but its pronominal paradigm is clearly fusional as in the non-radical pro-drop Standard English. We propose, following Huang (1984)'s insight, that the radical pro drop option in CSE follows from its topic-prominent profile. According to this analysis, a discourse topic is base-generated in the sentence-initial topic position, which is linked to an empty gap within the TP through the semantic rule of predication. We show that this analysis can be extended to many other typologically different languages. We further provide evidence that the otherwise liberal omission of the subject argument is blocked by syntactic agreement. Based on this finding, we propose that the radical pop drop emerges in a language as the byproduct of the lack of syntactic agreement and topic-prominence in the language in question.

* ACKNOWLEDGEMENTS

The organization of the present paper is as follows. In the following section, we review a recent influential theory of radical pro drop proposed by Neeleman and Szendrői (2007), which attempts to establish the link between the radical pro drop property and the agglutinative morphological profile of personal pronouns. We then show that this theory is called into question by CSE, which is a radical pro drop language but its personal pronouns are not agglutinative. We propose, extending Huang's (1984) analysis of pro drop in Chinese to CSE, that the crucial factor liberating the radical pro drop option in CSE is its topic-prominence. We propose that due to the dedicated topic-sensitive phrase structure configuration, CSE allows a discourse topic in the sentence-initial position to be directly linked to an empty gap occupied by pro within the TP domain. In section 4, we make the new observation that the radical pro drop option is blocked in CSE by verb-subject agreement, using data from grammaticality judgment tasks and data from the *National Institute of Education Corpus of Spoken Singapore English*. The incongruence between topic-prominence and agreement system leads us to hypothesize that the radical pro drop feature in a language is a natural outcome of the lack of syntactic agreement and topic-prominence. Section 5 is the conclusion.

2. Radical Pro Drop and the Morphology of Pronouns in CSE

In this section, we review one recent influential theory of radical pro drop presented by Neeleman and Szendrői (2007) (henceforth, N&S). Neeleman and Szendrői propose that a language exhibits the radical pro drop option if its personal morphology is agglutinating. We present data from CSE showing that this variety presents an empirical challenge to their theory.

2.1. Agreement-Based Pro Drop and Radical Pro Drop

It is well known that European languages such as Italian, Spanish, and Greek allow omission of understood pronominal subjects in a tensed clause. Example (1) from Italian illustrates this phenomenon.

- (1) Gianni_i ha detto che Ø_{i/j} ha telefonato.
 Gianni has said that has telephoned
 ‘Gianni_i said that he_{i/j} telephoned.’ (Italian)

A common observation about this subject drop within the framework of Generative Grammar (Taraldsen 1978; Rizzi 1982) has been that “rich” agreement provides a means to identify the subject and licenses the occurrence of the little *pro* (Agreement-Based Pro Drop). Thus, the verb ‘to eat’ in Italian allows for the identification of an understood subject due to its rich inflections, as shown in (2).¹

- (2) mangio I.eat mangiamo we.eat
 mangi youSG.eat mangiate youPL.eat
 mangia he/she.eats mangiano they.eat (Italian)

¹ The following abbreviations are used in this paper: A, anaphoric; ACC, accusative; COMP, completive; DAT, dative; EMPH, emphatic; K, kase; M, masculine; NOM, nominative; P, pronominal; PAST, past tense; PL, plural; PM, predicate marker; POSS, possessive; PROG, progressive; PRT, particle; SG, singular; TR, transitivity marker; 1/2/3, first/second/third person.

However, this observation is based on (Indo-) European languages: rich agreement languages like Italian, Spanish and Greek allow subject pro drop whereas poorly inflected languages like English, Dutch, and Swedish do not. This agreement-based theory of pronominal drop is immediately called into question once we bring the facts of pro drop in Asian languages (e.g., Japanese, Chinese, Korean, Indonesian) into the picture because *pro* appears rather freely in any one of the argument positions (subjects, objects, possessors, etc.) despite the fact that these languages lack the agreement system entirely (Huang 1984). This liberal omission of a pronominal argument, widely known as *Radical Pro Drop*, is illustrated in (3) from Japanese and in (4) from Chinese.

- (3) a. Ø siken-ni otita.
 exam-DAT failed
 ‘pro failed the exam.’
- b. Bill-ga otita.
 Bill-NOM failed
 ‘Bill failed pro.’
- c. [NP Ø mimi-ga] nagai.
 ear-NOM long
 ‘pro’s ears are long.’ (Japanese)

- (4) a. Ø kanjian ta le.
 see he COMP
 ‘pro saw him.’

- b. Ta kanjian Ø le.
 he see COMP
 ‘He saw pro.’
- c. Zhangsan, [Ø baba] hen youqian.
 Zhangsan father very rich
 ‘Zhangsan, pro’s father is very rich.’ (Chinese)

The question, then, is two-fold: a) What is the underlying principle governing the radical pro drop option and b) this pattern can be reconciled with agreement-licensed pro-drop.

2.2. Neeleman & Szendrői’s (2007) Radical Pro Drop Generalization

N&S hypothesize that the presence vs. absence of rich agreement is not the crucial feature behind the occurrence of radical pro drop in a language and propose that this phenomenon is linked instead to the internal morphological structure of personal pronouns in the language. Their radical pro drop generalization is shown in (5):

(5) N&S’s (2007) Radical Pro Drop Generalization

Radical pro drop requires agglutinating morphology on pronouns. (N&S 2007: 673)

This generalization states that a language *L* will allow radical pro drop if its personal pronouns are agglutinating for Case, number, gender, or some other nominal feature. N&S tested this generalization against some twenty typologically different languages and observations based on *The World Atlas of Language Structures* (Haspelmath et al. 2005). The languages included in

their survey include Japanese, Jamaican Creole, Swedish, Dutch, Afrikaans, Italian, Pashto, Greek, Papiamentu, Tok Pisin, Korean, Burmese, Assamese, Hindi/Urdu, Kokota and Cheke Ho.

N&S derive their generalization above from three independently motivated assumptions summarized in (6a-c). The Elsewhere Principle has three prominent features stated in (7a-c).

- (6)
 - a. Null arguments are zero spell-outs of regular overt pronouns (Perlmutter 1971).
 - b. Spell-Out rules for pronouns may target non-terminal nodes in the syntax (Weerman and Evers-Vermeul 2002).
 - c. The Elsewhere Principle (Kiparsky 1973) is respected.

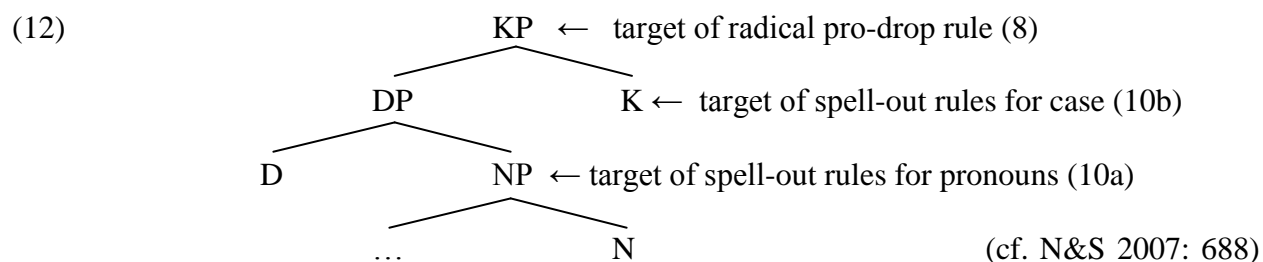
- (7)
 - a. All else being equal, a phonological realization of a category C takes priority over a phonological realization of the categories contained in C.
 - b. All else being equal, a phonological realization of a category C that spells out more of C's features takes priority over a phonological realization that spells out fewer features.
 - c. Optionality results if the phonological realization of a category C spells out fewer of C's features than the phonological realization of the categories contained in C.

(N&S 2007: 687)

We illustrate how N&S establish the link between the agglutinative morphology of pronouns and the radical pro drop property with these assumptions, using Japanese and English as examples.

for pronouns (0) K DP

The rules (8) and (9) both target the KP. (9) blocks (8) due to (7b) because (9) realizes more features (i.e. Case and ϕ -features) than (8). Now, compare the derivation in (11) with (12), the derivation for the Japanese personal pronoun *kare*.



The rules (8) and (10a) do not compete in (12). (8) is more compliant with (7a) than (12a), but (12a) is more compliant with (7b) than (8). As a result, neither rule blocks the other. Thus, Japanese emerges as an RPD language.

Two notes are in order at this point. First, N&S's analysis allows for the possibility that languages with fusional pronominal morphology have *some* version of the pro-drop option. As we saw earlier, Italian allows agreement-based (subject) drop. This is captured by the context-sensitive rule in (13). (13) is not in an elsewhere relation with (the Italian equivalent to) rules like (9); (13) contains agreement that (9) lacks whereas (9) mentions particular ϕ -features that (13) is insensitive to.

$$(13) \quad [_{KP} +p, -a, \phi_i] \Leftrightarrow \emptyset / \text{ ___ } [\phi_i] \quad (\text{N\&S 2007: 687})$$

Second, N&S's analysis predicts that RPD is possible in a language as long as its pronominal paradigm has *some* KP-internal agglutinating morphology (case, number, or some other nominal

features). Thus, Chinese allows RPD, N&S argue, because plural pronouns are derived from singular variants by the plural morpheme *men*, as illustrated in (8a-f).

- (14) a. [NP +p, -a, 1, SG] \Leftrightarrow /wǒ/ d. [K ...] \Leftrightarrow \emptyset
 b. [NP +p, -a, 2, SG] \Leftrightarrow /nǐ/ e. [POSS] \Leftrightarrow /de/
 c. [NP +p, -a, 3, SG] \Leftrightarrow /tā/ f. [PL] \Leftrightarrow /men/ (N&S 2007: 689)

To the extent that N&S's radical pro drop generalization holds, they have uncovered a new link between two phenomena that have hitherto been considered unrelated. In the next subsection, however, we provide evidence from CSE that question the robustness of their generalization.

2.3. *Radical Pro drop and Fusional Pronominal Morphology in CSE*

CSE is a variety of English spoken in Singapore that has emerged as a result of intense language contact between Standard English and local varieties of Malay and Chinese (and to a lesser extent, Tamil). Some linguists, notably, Platt (1975), have termed CSE a “creoloid”, a contact variety which has many creole-like features but lacks the usual predecessor pidgin stage required in a traditional pidgin-creole continuum. As extensively documented in the literature on Singapore English (Bao 2001, 2005; Bao and Lye 2005; Deterding et al. 2003; Ho and Platt 1993; Pakir 1991; Platt and Ho 1983, 1989; Platt and Weber 1980; Ritchie 1986), this variety shows a spectacular range of syntactic differences from Standard English that can be traced back to the systemic substrate influences of Chinese.

As observed by Alsagoff and Ho (1998), Bao (2001), Gupta (1994), Platt and Weber (1980), Tan (2003, 2007, 2009) and Tay (1979), amongst others, CSE allows liberal omission of subjects, objects and possessors, as shown in (15a-c). (Omitted pronouns are underlined.)

- (15) a. After Ø get some sickness, Ø can't help it. 'After one falls ill, one can't help it.'
- b. I never try Ø before. 'I've never tried it before.'
- c. Ø Head very pain. 'My head is very painful.'

((15a, b) from Tan 2003: 1; (15c) from Liangcai Chan, pers.comm.)

Thus, N&S predict that the pronominal system in CSE should have some KP-internal agglutinating morphology. This prediction is false because pronouns in CSE are fusional in every sense that pronouns in Standard English are; the form each pronoun takes is based on case and number, as in Standard English (i.e., *I/me/my*, *you/you/your*, *he/him/his*, *she/her/her*, *we/us/our*, *you/you/your* and *they/them/their*). Thus, examples (16a, b) show that nominative pronouns are possible in subject position but not in object position and that accusative pronouns are possible in object position but not in subject position. Thus, CSE pronouns are fusional for case.

- (16) a. **He**/***him** like Cindy a lot.
- b. Cindy like **him**/***he**, meh? (*meh* = discourse particle) (Lionel Wee, pers.comm.)

Recall from section 2.2 that a language with the otherwise fusional morphology could still have some version of the pro-drop under N&S's analysis if it exhibits syntactic agreement. Agreement in CSE, if any, does not play the same role as rich agreement in languages like

Italian, Spanish and Green in recovering a missing pronominal subject, given its highly impoverished nature of the inflection (see section 4 for more detailed discussion on the status and function of agreement morphology in CSE). Furthermore, Platt and Ho (1983) and Tan (2003, 2007, 2009) observe that the ending *-s*, the reflex of the obligatory third person singular present agreement in Standard English, is not a mandatory exponent of the same feature set in CSE. This point is illustrated in (17a, b) (see also (16a, b)).

- (17) a. I got very kind mother. (She) **Look** after the kids.
 b. So (he) **have** to go there?

((17a) from Platt and Ho 1983: 39; (17b) from Tan 2003: 5)

In (17a, b), *-s* is absent in CSE in the environments under which it is obligatory in Standard English. On these two grounds, we maintain that agreement is generally syntactically irrelevant in CSE, unlike in classical pro-drop languages.

Under N&S's analysis, it suffices for a language to have at least *one* recognizable agglutinating morphology on personal pronouns to trigger the radical pro drop option. It is, of course, difficult to prove that CSE has *no* agglutinating morphology on any feature of the pronouns. However, there is by now a relatively established inventory of morphosyntactic features within the (extended) nominal projection (case, number, gender, classifier and determiner) and in none of these regards are pronouns in CSE agglutinating. More importantly, the pronominal paradigm in CSE is fusional as that in the superstrate Standard English in all relevant respects. Therefore, CSE presents a genuine challenge to the RPD Generalization.

2.4. *Saito's (2007) Radical Pro Drop Generalization*

In a different vein, Saito (2007) argues that RPD languages have i) lack of (forced) agreement *and* ii) Case-less *pro*. In these languages, a Case-less *pro* may be freely inserted at LF because it has no uninterpretable features that must be checked and deleted, which gives rise to the radical pro drop property. Japanese has both of these features (Kuroda 1988; Perlmutter 1972; Kuno 1973). Italian and Spanish have neither of these properties: they have agreement and *pro* has Case. It is tempting to connect Saito's proposal to the link between case-agglutinating pronouns and radical pro drop along the lines laid out by N&S: overt pronouns in Italian and Spanish are fusional for case while those in Japanese are agglutinative. However, the facts in CSE still present a challenge to Saito's generalization above because CSE allows radical pro drop even though its pronouns are fusional for case (recall (16a, b)). In other words, to the extent that the morphological structure of overt pronouns mirrors that of silent pronouns, the CSE facts further indicate that radical pro drop is not be conditioned by agglutinating pronominal morphology.

3. **Topic-Prominence and Radical Pro Drop**

In this section, we present a new analysis of the emergence of the radical pro drop property with special reference to CSE. Following Huang's (1984) insight, we propose that CSE permits radical pro drop due to its topic-prominent structure. We provide further support for the relevance of topic-prominence as the crucial factor to license radical pro drop from many other typologically different languages

3.1. *Topic-Prominence and Predication*

Li and Thompson (1976) observe that languages are classified into topic-prominent languages and subject-prominent languages. In topic-prominent languages such as Japanese and Chinese, sentences are analyzed according to communicative criteria into the topic (what is being talked about) and the comment (what is being said about the topic). In subject-prominent languages such as English and Dutch, on the other hand, sentences are divided into subjects and predicates.

CSE exhibits signature properties of topic-prominent languages. Firstly, CSE lacks expletive elements such as *there* in Standard English. This is illustrated by the complex existential construction in CSE in (18a). Compare this example with the expletive existential construction in Standard English shown in (18b).

- (18) a. *Got* people want to go.
 b. *There* are people who want to go. ((18a) from Lee et al. 2009: 295)

Secondly, CSE allows topic chain constructions illustrated in (19B).

- (19) A: So, you can cycle now, can you?
 B: Yeah, [\emptyset]_{Top} \emptyset can cycle, not very well, [\emptyset]_{Top} but \emptyset can cycle, ah,
 [\emptyset]_{Top} \emptyset knocked myself against the pillar, [\emptyset]_{Top} but then \emptyset managed to pick up cycling.
 (NIECSSE, F13-c: 02)

In this discourse, B is introduced as the topic of the discourse initiated by A. Once this is established, each of the clauses in (19B) has B as the topic to be predicated about. Thus, all

clauses have null subjects, making a topic chain linked to the original topic. Thirdly, CSE makes extensive use of topic-markers such as *as for*, *wise*, and discourse particles, as in (20a, b).

- (20) a. *As for filters wise*, get a UV filter.
 b. Your homework *ha/hor/la*, you better do Ø. (Tan 2009: 26)

Finally, CSE possesses the so-called hanging topic construction, illustrated in (21a, b).

- (21) a. Australia, I've been to Perth.
 b. Local food, you must try chicken rice. (Tan 2009: 26, 27)

The availability of the hanging topic construction as in (21a, b) is criteria to identifying a language as topic-prominent because it indicates a distinct syntactic structure dedicated to a sentence-initial topic. In these examples, it is hard to imagine the syntactic derivation in which the underlined topic (*Australia*, *local food*) is moved from a clause-internal argument position to the sentence-initial position by syntactic movement because there is no argument position from which the topic could have moved. Based on these considerations, it is reasonable to conclude that CSE is a topic-prominent language. This result is also hardly surprising given the systematic grammatical influences on the grammar of CSE from topic-prominent Chinese languages such as Hokkien, Teochew, Cantonese and Mandarin (Tsao 1977; Li and Thompson 1976; Huang 1984).

Drawing on Huang's (1984) insight that topic-prominence is a crucial factor that liberates the radical pro drop option, we follow Bao (2001) and Tan (2007, 2009) and propose

that radical pro drop in CSE is made possible by the interpretive strategy shown in (22), which crucially lives upon the specific topic-comment phrase structure configuration shown in (23).

(22) $[_{TOP} \alpha [_{TP} \dots \beta \dots]]$, where α is a major category and β , possibly empty, is related to α .

(Xu and Langendoen 1985: 20)

(23) $[_{Top} TOP [_{TP} \dots]]$

According to this analysis, a null argument construction is base-generated with a topic element directly merged in the sentence-initial topic position (marked by α) linked to the null argument in the β -position by a movement-free interpretive rule.

An important question remains as to how the availability of the topic-prominent configuration in (23) explains the possibility of having null arguments since the two phenomena are generally considered unrelated. Furthermore, Italian, a non-radical pro drop language, allows hanging topics as schematized in (23), but precisely these DPs must be resumed by an overt pronoun sentence-internally (see Frascarelli 2007). Clearly, then, what is responsible for the emergence of the radical pro drop property in a language is the overall topic-prominent nature of the language in question. We hypothesize that the link between the two phenomena can be established by predication. Suppose that, due to its robust topic-prominent profile, a language L has developed a distinct semantic mechanism of predication holding between a base-generated topic and the proposition/TP. Suppose further that this mechanism satisfies all the structural and selectional requirements within the TP that need to be met by (overt movement of) an DP in languages such as English. As a result, then, L has no need to insert any overt DP in the apparent argument positions within the TP because the syntactic roles served by overt DPs in non-topic-

prominent languages like English are satisfied instead by the base-generated topic through predication. Assuming that *pro* is always available for filling in an elliptic argument position, the thematic requirements of the predicate within the TP are met by base-generated *pro*'s. This hypothesis has the far-reaching implication that the functions of many of the licensing mechanisms that have been hypothesized within generative grammar to take place in the narrow syntax of English and other similar languages (e.g., movement, configurational assignment of thematic role, selection) may instead be served by interface licensing mechanism at the semantic interface in topic-prominent languages (cf. Fukui and Sakai 2003).

However, it is still not established how the very possibility of having *null* arguments follows from topic-prominence. We return to this question in section 4.2, where we discuss the inhibitory effects of syntactic agreement on radical pro drop in CSE. We argue in that section that the link is established by the incongruence between topic-prominence and syntactic agreement.

3.2. *Typological Considerations*

Now that we have shown that CSE is a genuine counterexample to N&S's generalization and presented an alternative analysis of the radical pro drop in terms of topic-prominence, two important questions arise. First, is CSE an isolated case against N&S's generalization? Second, are there more languages of this type that would falsify it? These questions are important because N&S show that creole languages (i.e., Jamaican Creole, Tok Pisin and Papiamentu) support, rather than contradict, their generalization. Examples (24-26) show that these languages do not allow radical pro drop.

- (24) a. *(Mi) a rait.
I am write
'I am writing.'
- b. Nobadi neva sii *(im).
nobody never see he
'Nobody ever saw him.'
- c. Dem so feisty in *(dem) ways.
they so feisty in they ways
'They were so feisty in their ways.' (Jamaican Creole: N&S 2007: 691)
- (25) a. *(Mi) laik go long Mosbi.
I want go to Moresby
'I want to go to Moresby.'
- b. Wanpela man i bin skul-im *(mi) long Tok Pisin.
one man PM PAST teach-TR I to Tok Pisin
'A man was teaching me Tok Pisin.'
- c. Em ya i bagarap-im meri bilong *(mi).
he EMPH PM assaulted-TR woman of me
'It's he who assaulted my wife.' (Tok Pisin: N&S 2007: 699)
- (26) a. Ta kiko *(bo) ta hasi?
PRT what you PROG do
'What are you doing?'

b. Mi a mir' *(e) o.

I PAST see he PRT

‘I did see him.’

c. Bo ke bende *(bo) auto Hapones?

you PRT sell you car Japanese

‘Do you want to sell your Japanese car?’ (Papiamentu: N&S 2007: 698)

Our analysis predicts that a contact variety should be able to exhibit radical pro drop if its grammar has borrowed and stabilized the robust topic-prominent structure from its substrate language(s). Indeed, CSE does not seem to be an isolated case. Chinese Pidgin English, a now extinct pidgin language between English and Chinese, appears to exhibit the same pattern as CSE; it allows null subjects and objects and its pronouns are fusional (or invariant) for case. This particular cluster of morphosyntactic profile, though problematic for N&S’s analysis, is compatible with our analysis because the grammar of Chinese Pidgin English has received substrate influences from Cantonese, another topic-prominent language (cf. Smith and Matthew 2005). Furthermore, it is not surprising that the three creole languages N&S discussed in favor of their generalization do not allow radical pro drop because none of these varieties has been characterized as a topic-prominent language, to the best of our knowledge. Based on these typological considerations, we propose the following generalization.

(27) Radical Pro Drop Generalization

Radical pro drop in a language *L* requires the overall topic-prominence of *L*.

Our analysis can further be extended to cover many other (families of) languages, including the following: Korean (Yang 1982; Kim 2007), Turkish (Kılıçaslan1998), Thai (Goddard 2005), Lisu (Li and Thompson 1976); Indonesian, Javanese, Sundanese, Balinese, Madurese, the Sasak languages of Lombok (Soemartono 2007); Dravidian/Indo-Aryan languages such as Telugu, Marathi, Hindi and Malayalam (Junghare 1985, 1990; Mohanan 1983); American Sign Language (Friedman 1976; Li and Thompson 1976; Lillo-Martin 1991); Brazilian Portuguese (Pontes 1987); Finnish (Holmberg and Nikanne 2002; Modesto 2008); Hungarian (É. Kiss 1994, 1998, 2002).

4. Syntactic Agreement: When Radical Pro Drop is Blocked in CSE

So far in this paper, we have shown that CSE is a radical pro drop language like Japanese and Chinese. In this section, we make a new observation that the availability of this option in CSE is conditioned by syntactic agreement in a way that is hard to identify in purely agreement-less, topic-prominent languages. We show that a close examination of the interaction between topic-prominence and syntactic agreement allows us to establish the hitherto unnoticed link between the topic-prominent structure of a language and the null argument option in the language.

4.1. The Role of Syntactic Agreement

It is a matter of considerable controversies whether CSE exhibits syntactic agreement as its suprastrate lexifier language. Consider a typical discourse of CSE shown in (28). In this conversation, Speakers A and B are discussing Charles Dickens' novel *Great Expectations*.

- (28) B: And how the benefactor *appear* in the first and last part...
- B: He *was* confused already. He *was* like part of the upper class but...
- A: Mmm...
- B: At the brink of it.
- A: Ya.
- B: Just, ya, it's very sad. (Wee and Ansaldo 2004: 65; italics due to the present authors)

In this discourse, Speaker B's first utterance does not exhibit correct agreement (*appear* instead of *appears*). The later utterances by the same speaker, however, do exhibit correct copular agreement. Therefore, it is incorrect to state that CSE lacks agreement *altogether*. We think that the seemingly free variation of agreement may well be the natural outcome of ongoing grammatical competition between the substrate languages (Hokkien, Teochew, Cantonese, Mandarin, and/or Malay; no agreement) and the suprastrate language (Standard British English; forced impoverished agreement). Wee and Ansaldo (2004: 66), for example, observe that verb-subject agreement in CSE is essentially sporadic rather than rule-governed and that it has not yet been stabilized to the extent that we can tell with certainty whether its manifestation is clearly diagnosed as due to sociolinguistic and/or strictly grammatical factors.

We concur with Wee and Ansaldo that the manifestation of agreement in CSE is optional (and perhaps even disfavored among CSE speakers). Our central observation here remains unaffected: once verb-subject agreement is manifested in a sentence in CSE, the radical pro drop option becomes unavailable. This observation is illustrated by examples (29) and (30).

(29) A: John plays soccer well hor?

B1: Yah, he plays well.

B2: *Yah, Ø plays well lor.

B3: Yah, he does lor.

B4: *Yah, Ø does lor.

(30) A: John wants to go zoo or not?

B1: Don't want lah.

B2: * Ø doesn't want lah.

B3: Yak/ok/go lor.

The utterances in (29B1-B4) list several possible replies in CSE to the question in (29A). The contrast in grammaticality between (29B1) and (29B2) shows that the null subject option is impermissible in the reply with verb-subject agreement. The same point is made by the contrast between (29B3) and (29B4). Our current observation is also evidenced by the contrast between (30B1) and (30B2), which shows that the agreement marker *-s* blocks the subject omission.

It is a thorny issue whether CSE speakers are code-switching from CSE to Standard English when they make use of the optional verb-subject agreement in utterances like (29) and (30). The question, thus, boils down to what makes a particular utterance a CSE sentence. In this regard, we follow Fong's (2004: 76) diagnostic that "...a particular example can be classified as CSE if we add a CSE discourse particle to it, and speakers find that the string remains acceptable in casual conversational discourse." To the extent that this heuristic is tenable, the sentences in (29B1-4)

and (30B1-B3) can all be regarded as CSE utterances. These examples, therefore, illustrate the inhibitory effects of agreement in an otherwise radical pro drop language.

One might still wonder whether the ending *-s* is indeed a reliable marker of agreement in CSE. As briefly stated above, it is debatable whether the third person singular present agreement has been an established feature of the grammar of CSE. Indeed, many CSE speakers we have consulted reported that the presence of this marker in a sentence makes it a non-CSE example: it belongs to a formal register of Singapore English. Despite this controversy, however, we have found that even those speakers do use correct agreement morphology for copular verbs (*am*, *is*, *am*, *was*, and *were*). This finding is supported on two grounds. First, we saw already above that in the later parts of B's conversation, B demonstrates her ability to indicate correct copular agreement. Second, we have tested this finding against naturally occurring utterances by CSE speakers in the NIE (National Institute of Education) Corpus of Spoken Singapore English (henceforth, NIECSSE). Our analysis predicts that there should be no examples with missing subjects in the presence of a copular verb in the corpora. The prediction was indeed borne out. Three examples from NIECSSE are given below. The copular verbs are in boldface for ease of exposition.

- (31) It's cheaper and um... the food over...at the... those wet markets and all those *pasar malam* **are** very much better I think ... but not the food over in the hawker centre...the restaurants. (NIECSSE, F1-b: 29)

(32) Um ... I... did a lot of reading which *is* very surprising, but anyway before that I *was*... I *was* very happy because it was ... vacation finally, so I went to buy ...colouring books ...It's very ... strange, but I did that I went to buy colouring books, because ... I thought that's the most relaxing thing to do... to colour books just like ... you *were* when you *were* a child. (NIECSSE, F2-a: 05)

(33) Well... I have learned Japanese ever since I *was* young and I have learned for many years ... and basically interested in their in their culture not forgetting their games I *am* interested in their games and their comics ... yeah. Um ... going there to ... buy new games and game machine. (NIECSSE, M3-c:03)

In all of these utterances, whenever a clause contains one of the copular verbs (*is*, *am*, *are*, *was*, and *were*), the clause also contains an overt subject that agrees with it in terms of number and person.

Our analysis also makes another prediction. It is widely acknowledged in the literature that copular deletion is a ubiquitous feature of CSE (Ho 1993; Alsagoff and Ho 1998; Alsagoff 2001; Ansaldo 2004; Fong 2004; Low and Brown 2005; Chang 2009), as shown in examples (34a, b).

- (34) a. I _____ damn clever. 'I am very clever.'
- b. The one _____ the wife lah. 'That lady is his wife.' (Chang 2009: 6)

We thus predict that when copular deletion occurs in a sentence, the sentence should be able to occur with the missing subject. This prediction is also borne out by examples such as (35):

(35) A: You going to lecture or not?

B: *Going* lor/Yah. (Randy Peh Ji Hao, pers. comm.)

These findings suggest that a) copular agreement has been integrated into the syntax of CSE as a genuine case of syntactic agreement and that b) this agreement blocks the subject prop.

4.2. *On the Mutual Exclusivity of Agreement and Topic-Prominence*

We can summarize our observations concerning CSE thus far as follows. Topic-prominence activates the semantic rule of predication. This rule, in turn, liberates the radical pro drop option. The topic chain created by predication is blocked, however, by syntactic agreement for whatever reason that Standard (British) English blocks pro drop. The most important question, then, is why topic-prominence of a language *L* leads to the emergence of the radical pro drop property in *L*. Our speculation in section 3.1 does not yet succeed in explaining how the availability of the null argument option/the availability of *pro* in argument positions follows from our theory of topic-prominence through predication. Now that we have illustrated the blocking effects of agreement in radical pro drop, we suggest the following analysis extending the seminal observation first made by Speas (1994, 2006) (see also Saito 2007 for a related analysis within the minimalist framework). Let us hypothesize that agreement and topic-prominence are mutually exclusive in a language. If a language has a rich agreement system like Italian, Spanish, and Greek, the agreement morphology allows one to recover the missing subject. If a language has an impoverished agreement system like English, Swedish and Dutch, on the other hand, the defective/uninterpretable agreement values must be recovered through a computational procedure such as the movement of an overt DP with the fully specified ϕ -features, as is

standardly assumed in the generative literature. The *pro* does not do in this type of language because it cannot remedy the impoverished agreement morphology. Given this assumption, if a language lacks the agreement morphology, it does not need any *overt* DP into the syntactic derivation since it has no agreement to worry about in the first place. Let us thus suppose as a conversational discourse principle (cf. Chomsky 1981) that:

(36) All else being equal, a *pro* must be chosen over an overt pronoun

This economy principle dictates that *pro* be used throughout in the argument positions. As a result, the agreement-less language exhibits the radical *pro* drop option. This type of language, of course, still needs some mechanism to properly recover the reference of the *pros* within the TP. We content that it is precisely for this reason that the discursal notion of topic-prominence comes into play in the agreement-less languages. We therefore are led to the conclusion that the radical *pro* drop property in a language *L* is the byproduct of the interaction between the economy principle of pronunciation in (31) and the lack of the agreement system in *L*.

Our theory developed thus far also provides a straightforward explanation for why syntactic agreement and topic-prominence are mutually exclusive in a single language. If a language has developed the semantic rule of predication due to its robust topic-prominent structure that connects a sentence-initial topic and a gap within the TP, the economy principle in (31) dictates that *pro* be sufficient to satisfy the structural and selectional requirements within the TP. Since *pro* is void of the previously specified ϕ -features and its referent must be recovered from discourse considerations, it not able to serve to repair an impoverished agreement. A topic-prominent language, therefore, effectively blocks the agreement system

from entering the grammar of such a language. The converse also holds. If a language has an impoverished agreement system, the identity of the missing subject must be recovered by (the movement of) an overt DP. However, the presence of an overt DP is incompatible with the requirement enforced by topic-prominence and the discourse principle in (31) that there should be no such DP in the syntactic structure.

5. Conclusions

In this paper, we have discussed the radical pro drop and the relevance of syntactic agreement on this property in CSE. We have first shown that the internal morphological structure of personal pronouns is an irrelevant factor to license radical pro drop, contrary to N&S's recent proposal that this property follows from the agglutinative morphology of the pronominal system. Following Huang's (1984)/Bao's (2001)/Tan's (2003, 2007, 2009) analysis, we have proposed that CSE allows radical pro drop because of its topic-prominent configuration. This configuration allows a base-generated topic to be connected to a sentence-internal gap through the semantic rule of predication. This analysis, we have shown, can also be extended to many other topic-prominent families of languages including Altaic (Korean, Turkish), Austronesian (Indonesian, Javanese), Dravidian/Indo-Aryan (Telugu, Hindi), American Sign Language, Brazilian Portuguese, Finnish and Hungarian. Then, we have observed that the otherwise available pro drop option is blocked in CSE sentences with agreement and discussed its theoretical implications for the theory of radical pro drop. Assuming that topic-prominence and agreement system are mutually incongruent in a single language, we have hypothesized that the radical pro drop property in a language *L* is the byproduct of the interaction between the economy principle of pronunciation favoring the use of pro over overt pronouns and the lack of the agreement system in *L*.

References

- Alsagoff, Lubna. 2001. Tense and aspect in Singapore English. In *Evolving identities: The English language in Singapore and Malaysia*, ed. by Vincent Ooi, 79-88. Singapore: Times Academic Press.
- Alsagoff, Lubna, and Chee Lick Ho. 1998. The grammar of Singapore English. In *English in new cultural contexts: Reflections from Singapore*, ed. by Joseph A., Foley, Thiru Kandiah, Zhiming Bao, Anthea F. Gupta, Lubna Alsagoff, Chee Lick Ho, Lionel Wee, Ismail S. Talib, and Wendy Bokhorst-Heng, 201-227. Singapore: Singapore Institute of Management/Oxford University Press.
- Ansaldi, Umberto. 2004. The evolution of Singapore English. In *Singapore English: A grammatical description*, ed. by Lisa Lim, 57-74. Amsterdam/Philadelphia: John Benjamins.
- Bao, Zhiming. 2001. The origins of empty categories in Singapore English. *Journal of Pidgin and Creole Languages* 16: 275-319.
- Bao, Zhiming. 2005. The aspectual system of Singapore English and the systemic subtrinitist explanation. *Journal of Linguistics* 41: 237-267.
- Bao, Zhiming, and Hui Min Lye. 2005. Systemic transfer, topic prominence, and the bare conditional in Singapore English. *Journal of Pidgin and Creole Languages* 20: 269-291.
- Chang, Qizhong. 2009. Copula deletion in Colloquial Singapore English. Master's Thesis, National University of Singapore.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Deterding, David, Low Ee Ling, and Adam Brown, eds. 2003. *English in Singapore: Research on grammar*. Singapore: McGraw-Hill Education.

-
- É. Kiss, Katalin. 1994. Sentence structure and word order. In *The syntactic structure of Hungarian*, ed. by Ferenc Kiefer and Karalin É. Kiss, 1-90. San Diego/London: Academic Press.
- É. Kiss, Katalin. 1998. Discourse-configurationality in the languages of Europe. In *Constituent order in the languages of Europe*, ed. by Anna Siewierska, 681-720. Berlin: Mouton de Gruyter.
- É. Kiss, Katalin. 2002. *Syntax of Hungarian*. Cambridge: Cambridge University Press.
- Fong, Vivienne. 2004. The verb cluster. In *Singapore English: A grammatical description*, ed. by Lisa Lim, 75-104.
- Frascarelli, Mara. 2007. Subjects, topics and the interpretation of referential *pro*. *Natural Language and Linguistic Theory* 25: 691-734.
- Friedman, Lynn A. 1976. The manifestation of subject, object and topic in American Sign Language. In *Subject and topic*, ed. by Charles N. Li, 125-148. New York: Academic Press.
- Fukui, Naoki, and Hiromu Sakai. 2003. The visibility guideline for functional categories: Verb raising and related issues. *Lingua* 113: 321-375.
- Goddard, Cliff. 2005. *The languages of East and Southeast Asia: An Introduction*. Oxford: Oxford University Press.
- Gupta, Anthea F. 1994. *The step-tongue: Children's English in Singapore*. Clevedon: Multilingual Matters.
- Haspelmath, Martin, Matthew S. Dryer, David Gil, and Bernard Comrie, eds. 2005. *The world atlas of language structures*. Oxford: Oxford University Press.
- Ho, Mian-Lian. 1993. To be or not to be: Variation in *Be* occurrence. In *Dynamics of a contact continuum*, ed. by Mian Lian Ho and John Platt, 31-73. Oxford: Clarendon Press.

- Ho, Mian-Lian, and John T. Platt. 1993. *Dynamics of a contact continuum: Singapore English*. Oxford: Oxford University Press.
- Holmberg, Anders, and Urpo Nikanne. 2002. Expletives, subjects and topics in Finnish. In *Subjects, expletives and the EPP*, ed. by Peter Svenonius, 71-105. Oxford: Oxford University Press.
- Huang, C.-T. James. 1984. On the distribution and reference of empty pronouns. *Linguistic Inquiry* 15: 531-574.
- Junghare, Indira Y. 1985. Topic prominent in Indo-Aryan and Dravidian languages. *International Journal of Dravidian Linguistics* 14: 181-198.
- Junghare, Indira Y. 1990. Discourse considerations for Marathi and Hindi syntax. *Indian Linguistics* 49: 66-80.
- Kılıçaslan, Yilmaz. 1998. A Form-Meaning Interface for Turkish. Doctoral dissertation, University of Edinburgh.
- Kim, So-Young. 2007. Topics and null arguments in Korean: The syntax and discourse. In *LSO Working Papers in Linguistics* 6, ed. by Blake Rodgers, 63-76. Madison: University of Wisconsin-Madison Linguistics Student Organization.
- Kiparsky, Paul. 1973. "Elsewhere" in phonology. In *A festschrift for Morris Halle*, ed. by Stephen R. Anderson and Paul Kiparsky, 93-106. New York: Holt, Rinehart and Winston.
- Kuno, Susumu. 1973. *The structure of the Japanese language*. Cambridge, MA: MIT Press.
- Kuroda, S.-Y. 1988. Whether we agree or not: A comparative syntax of English and Japanese. *Linguisticae Investigations* 12: 1-47.
- Lee, Nala Huiying, Ai Ping Ling and Hiroki Nomoto. 2009. Colloquial Singapore English *got*: Functions and substratal influences. *World Englishes* 28: 293-319.

-
- Li, Charles N. and Sandra Thompson A. 1976. Subject and topic: A new typology of language. In *Subject and topic*, ed. by Charles N. Li, 457-471. New York: Academic Press.
- Lillo-Martin, Diane. 1991. *Universal grammar and American sign language*. Boston: Kluwer.
- Low, Ee Ling, and Adam Brown. 2005. *English in Singapore: An introduction*. Singapore: McGraw-Hill Education (Asia).
- Modesto, Marcello. 2008. Topic prominence and null subjects. In *The limits of syntactic variation*, ed. by Theresa Biberauer, 375-409. Amsterdam: John Benjamins.
- Mohanan, K. P. 1983. Functional and anaphoric control. *Linguistic Inquiry* 14: 641-674.
- Neeleman, Ad, and Krista Szendrői. 2007. Radical pro drop and the morphology of pronouns. *Linguistic Inquiry* 38: 671-714.
- Pakir, Anne. 1991. The range and depth of English-knowing bilinguals in Singapore. *World Englishes* 10: 167-179.
- Perlmutter, David. 1971. *Deep and surface constraints in generative grammar*. New York: Holt, Rinehart and Winston.
- Perlmutter, David. 1972. Evidence for shadow pronouns in French relativization. In *The Chicago Witch Hunt*, ed. by Paul M. Peranteau, Judith N. Levi, and Gloria C. Phares, 73-105. Chicago: University of Chicago, Chicago Linguistic Society.
- Platt, John T. 1975. The Singapore English speech continuum and its basilect 'Singlish' as a creoloid. *Anthropological Linguistics* 17: 363-374.
- Platt, John T. and Mian-Lian Ho. 1983. *Varieties of English around the world: Singapore and Malaysia*. Amsterdam: John Benjamins.
- Platt, John T. and Mian-Lian Ho. 1989. Discourse particles in Singaporean English: Substratum influences and universals. *World Englishes* 8: 215-221.

-
- Platt, John T. and Heidi Weber. 1980. *English in Singapore and Malaysia: Status, features, functions*. Oxford: Oxford University Press.
- Pontes, Eunice. 1987. *O tópico no Português do Brasil*. Campinas, SP: Pontes
- Ritchie, William C. 1986. Second language acquisition and the study of non-native varieties of English: Some issues in common. *World Englishes* 5: 15-30.
- Rizzi, Luigi. 1982. *Issues in Italian syntax*. Dordrecht: Foris.
- Saito, Mamoru. 2007. Notes on East Asian argument ellipsis. *Language Research* 43: 203-227.
- Smith, Geoff P. and Stephen Matthews, eds. 2005. Chinese pidgin English: Texts and contexts. *Special Issue of the Hong Kong Journal of Applied Linguistics – Chinese Pidgin English: Texts and contexts*. Hong Kong: Center for Applied English Studies.
- Soemartono, Endang S. 2007. Javanese and the languages of Java belong to the pro-drop languages. Paper presented at the International Symposium on the Languages of Java. Semarang, Java, Indonesia, 15-16 August.
- Speas, Margaret. 1994. Null arguments in a theory of economy of projection. In *University of Massachusetts Occasional Papers in Linguistics*, ed. by Elena Benedicto and Jeffrey Runner, 179-208. Amherst: University of Massachusetts, GLSA.
- Speas, Margaret. 2006. Economy, agreement and the representation of null arguments. In *Arguments and agreement*, ed. by Peter Ackema, Patrick Brandt, Maaïke Schoorlemmer and Fred Weerman, 35-75. Oxford: Oxford University Press.
- Tan, Ludwig A.-K. 2003. Topic-prominence and null arguments in Singapore Colloquial English. In *English in Singapore: Research on grammar*, ed. by David Deterding, Low Ee Ling, and Adam Brown, 1-10. Singapore: McGraw-Hill Education.

- Tan, Ludwig A.-K. 2007. Null arguments in Singapore Colloquial English. Doctoral dissertation, University of Cambridge.
- Tan, Ludwig A.-K. 2009. Topic and null arguments in Singapore Colloquial English. In *Englishes and Literatures-in-English in a Globalized World: Proceedings of the 13th International Conference on English in Southeast Asia*, ed. by Lawrence, Jun Zhang, Rany Rundy, and Lubna Alsagoff, 23-28. Singapore: Nanyang Technological University, National Institute of Education.
- Taraldsen, Tarald. 1978. On the NIC, vacuous application and the *that*-trace filter. Ms., MIT.
- Tay, Mary W. J. 1979. The uses, users and features of English in Singapore. In *New varieties of English*, ed. by Jack C. Richards, 91-111. Singapore: SEAMEO Regional Language Center.
- Tsao, Feng-Fu. 1977. A functional study of topic in Chinese: The first step toward discourse analysis. Doctoral dissertation, University of Southern California.
- Wee, Lionel and Umberto Ansaldi. 2004. Nouns and noun phrases. In *Singapore English: A grammatical description*, ed. by Lisa Lim, 57-74.
- Weerman, Fred, and Jacqueline Evers-Vermeul. 2002. Pronouns and case. *Lingua* 112: 301-338.
- Xu, Liejiong, and Terrence Langendoen D. 1985. Topic structures in Chinese. *Language* 61: 1-27.
- Yang, Dong-Whee. 1982. Control and binding in Korean. Ms., Harvard University.

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