

Verbal Agreement and PCC Effects in Tagalog

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Abstract

This paper examines PCC effects in Tagalog multiple *ang*-sentences and analyzes them by using Richards' (2008) theory of *quirky* expletives. My account is based on the assumption that subjecthood in Tagalog is due to a head with default φ -features that is obligatorily present in every derivation. Furthermore, I assume that the verbal probe consisting of a person and a number feature is split and reunified by head-movement. The person feature is present on *v* and the number feature on T. Since PCC effects in Tagalog occur only in *ay*-fronting constructions, the difference between Icelandic and Tagalog is due to the nature of the feature that triggers *ay*-fronting. This feature can only probe together with the person feature and therefore depends on its value. These assumptions make it possible to explain the behavior of Tagalog verbal agreement and argument marking and the distribution of PCC effects. The account differs from previous accounts of Tagalog in that Tagalog and Indo-European languages show more similarities with respect to verbal agreement.

1. Introduction

The aim of this paper is to show that agreement and PCC effects in Tagalog have exactly the same properties as agreement and PCC effects in Icelandic and that cross-linguistic differences in these phenomena can be reduced to a different distribution of syntactic features.

Verbal agreement in Tagalog has been extensively studied by Rackowski (2002) who claims that Tagalog verbs agree with their arguments in case. This analysis clearly exoticizes Tagalog with respect to Indo-European languages where verbal agreement is said to be for φ -features rather than for case. In this article, I will show that Tagalog verbal agreement can be analyzed as φ -feature

* I would like to thank Sebastian Bank, Doreen Georgi, Jakob Hamann, Fabian Heck, Stefan Keine, Larissa Kröhnert, Andreas Opitz, Marc Richards, Michael Sappir, Jochen Trommer and Eva Zimmermann for helpful comments and discussion. Research relates to the project *Argument Encoding in Morphology and Syntax*, part of the DFG research group 742 *Grammar and Processing of Verbal Arguments*

agreement. For this purpose, I will use the Agree mechanism proposed by Chomsky (2000, 2001) which says that agreement between two categories in a sentence takes place because one of these categories is a *probe* that has unvalued and hence uninterpretable features which must be valued and deleted in order to obtain an interpretable structure. The other category is the so-called *goal* which can provide values for these features. Now, I propose that the verbal probe in Tagalog is split (cf. Béjar and Āezáč (2003)), specifically the person feature is located on *v* while the number feature is located on T. Therefore, in Tagalog, in contrast to Icelandic, both features can probe independently.

In addition, I will show that PCC effects in Tagalog can be explained just like PCC effects in Icelandic although they show a different distribution. To this end, I will make use of a recent proposal made by Richards (2008) who suggests that PCC effects occur in Icelandic because the derivation contains a “quirky” expletive which determines the person feature’s value of the verbal probe. I will show that this idea can be transferred to Tagalog. The only real idiosyncrasy of Tagalog will be that these quirky expletives of Richards (2008) are part of every derivation in Tagalog.

PCC effects in Tagalog have been noticed by Richards (2005) who also sketches an idea of how to derive such effects. However, his analysis is far from being explicit enough to explain the recalcitrant distribution of PCC effects in Tagalog. In my analysis, the cross-linguistic differences in the distribution of PCC effects will be explained again by different forms of verbal probes in both languages.

Thus, Tagalog will be said to behave exactly like Icelandic in its main properties of agreement and PCC effects. All the differences, which have caused many authors to develop language-specific analyses for Tagalog agreement, can be simply reduced to a different distribution of syntactic features.

The paper is structured as follows: Section 2 will introduce verbal agreement and PCC effects in Tagalog. Then, section 3 will introduce the reader to the nature of null expletives and summarize Richards’ (2008) discussion of Icelandic. Afterwards, section 4 will provide a detailed analysis of Tagalog verbal agreement and PCC effects. Section 5 will summarize two previous accounts of Tagalog verbal agreement and PCC effects. Finally, section 6 concludes the article.

2. PCC Effects in Tagalog

In this section, I will first introduce some general issues of Tagalog verbal agreement and then present the PCC effects which are only found in certain inversion constructions.

2.1. The Structure of Tagalog

Tagalog is a VSO language with several operations to change word order. According to Rackowski (2002), Tagalog possesses a case system with accusative alignment. Most verbs show overt agreement with one of their arguments which is marked twice: the verb is marked by an affix (often described as *voice* marker, e.g. by Schachter and Otnes (1972)) while the argument controlling agreement is marked by the particle *ang*. This argument, whether internal or external, is called the *subject*, i.e. the definition diverges from the configurational definition of subjecthood in Indo-European languages. Throughout the rest of this paper, the term “subject” will, therefore, be used for the argument the verb agrees with while the configurational difference between the arguments will be expressed by the terms “internal” vs. “external” argument.

Another difference to Indo-European languages concerns the distribution of specific and non-specific arguments. In other words, the argument marker *ang* goes hand in hand with specificity, i.e., if a DP is marked by *ang*, it is obligatorily specific. The marker *ng*, on the other hand, can combine with specific or non-specific arguments depending on the (syntactic) context.¹ Examples of Tagalog sentences are given in (1) (cf. Rackowski (2002:89)). The translations below indicate which interpretations are possible and which are excluded.

- (1) a. mag-luluto ang lalaki ng adobo para sa asawa
 NOM.PAG-ASP.cook ANG man NG adobo P DAT spouse²
 ‘The man will cook adobo for his wife.’
 (*A man will cook adobo for his wife.)
 (*The man will cook *the* adobo for his wife.)

External argument controls agreement

¹See Hirano (2005) for details.

- b. Ø-lulutu-in ng lalaki ang adobo para sa asawa
 ASP.cook-ACC NG man ANG adobo P DAT wife
 ‘The man will cook *the* adobo for his wife.’
 (*The man will cook adobo for his wife.)

Internal argument controls agreement

In (1-a), the verb *cook* agrees with the external argument *man*. Hence, *man* receives the marker *ang* and the verb gets the nominative agreement marker *mag-*. Note that the translations above show that *man* is specific while *adobo* is not. That means, *ng* stands for non-specificity in this case. In (1-b), on the other hand, the internal argument *adobo* controls agreement which is marked, again, by *ang*. The verb is now marked differently with the suffix *-in*. Interestingly, in this context *ng* can be specific as the translation shows.³

In section 4.1, we will see how the distribution of *ang*, verbal agreement markers and specificity can be derived.

2.2. PCC Effects

PCC effects in Tagalog only occur in so-called *ay*-fronting constructions.⁴ (2-b) – (2-c) show the operation of *ay*-fronting where the *ang*-marked argument is fronted and the verb is marked by *ay*. (2-d) exemplifies the fact that *ay*-fronting of another DP but the *ang*-marked one leads to ungrammaticality.

- (2) a. Kumain ang kalabaw ng bulaklak
 NOM.ate ANG water.buffalo NG flower
 ‘The water buffalo ate a flower.’

²NOM = Nominative, PAG = pag (transitivity) morpheme, ASP = aspect, ANG = ang, NG = ng, P = preposition, DAT = dative, ACC = accusative

³The additional benefactive DP does not disturb this robust behavior of *ang* and *ng*. The following examples are extracted from Aldridge (2004:2).

- (i) a. Binili ng babae ang isda.
 ACC.bought NG woman ANG fish
 ‘The woman bought the fish.’
 b. Kumain ang babae ng isda.
 NOM.ate ANG woman NG fish
 ‘The woman ate (a) fish.’

⁴The following discussion and data below are all drawn from Richards (2005).

- b. Ang bulaklak ay kinain ng kalabaw
 ANG flower AY⁵ACC.ate NG water.buffalo
- c. Ang kalabaw ay kumain ng bulaklak
 ANG water.buffalo AY NOM.ate NG flower
- d. *Ng bulaklak ay kumain ang kalabaw
 NG flower AY NOM.ate ANG water.buffalo

Now, some verbs don't show agreement with one of their arguments at all. In these sentences, no argument is marked by *ang*.

- (3) Kabibili lang ng lalaki ng tela
 REC.PERF.bought⁶ just NG man NG cloth
 'The man just bought the cloth.'

If *ay*-fronting affects such sentences, any argument can be fronted. Fronted arguments are always *ang*-marked.

- (4) a. Ang lalaki ay kabibili lang ng tela
 ANG man AY REC.PERF.bought just NG cloth
- b. Ang tela ay kabibili lang ng lalaki
 ANG cloth AY REC.PERF.bought just NG man

The next set of data in (5) shows that multiple *ang*-marking is possible, too. In such sentences, the DP that controls agreement is marked by *ang*. But beside that, another DP is marked by *ang*. In such constructions, only the external argument can be fronted.

- (5) a. Ang kalabaw ay kinain ang bulaklak
 ANG water.buffalo AY ACC.ate ANG flower
 'The water buffalo ate the flower.'
- b. *Ang bulaklak ay kinain/kumain ang kalabaw
 ANG flower AY ACC.ate/NOM.ate ANG water.buffalo

(6) ARGUMENT CONSTRAINT OF *ay*-FRONTING

In multiple *ang*-sentences, the DP that is *ay*-fronted **must not** be the internal argument.

⁵AY = *ay* (inversion particle)

⁶REC = recent past, PERF = Perfect

Now, the interesting fact presented in (7-b) is that beside the argument constraint, such multiple *ang*-sentences are restricted by a person constraint. The fronted argument must be third person while the internal argument, which controls agreement, can have any person value.

- (7) a. Ang babae ay sinuntok ang mandurukot.
 ANG woman AY ACC.hit ANG pickpocket
 ‘The woman hit the pickpocket.’
 b. *Ako ay sinuntok ang mandurukot.
 ANG.I AY ACC.hit ANG pickpocket
 ‘I hit the pickpocket.’
 c. Ang mandurukot ay sinuntok ako.
 ANG pickpocket AY ACC.hit ANG.I
 ‘The pickpocket hit me.’

(8) PERSON RESTRICTION OF *ay*-FRONTING

In multiple *ang*-sentences the DP that is fronted must be 3rd person.

To explain the PCC effects in Tagalog, I will make use of a recent proposal by Richards (2008). His theory will be the topic of the next section. Afterwards, I will transfer his ideas to Tagalog.

3. Quirky Expletives

This section summarizes Richards’ (2008) account of quirky subjects in Icelandic and which dismisses defective intervention in favour of a more minimalist view of case features and PCC effects.

Building on a standard definition of the operation *Agree* as suggested by Chomsky (2000) in (9), Richards (2008) adopts the widely accepted theory that ϕ -features and case features are reflexes of the same featural relation F.

- (9) AGREE (P[robe], G[oal]) if
- P *c-commands* G
 - P and G are *active*
 - P *matches* G for feature F (where Match=nondistinctness)
 - G is *interpretable* (=valued) for F
 ...with the result that ...
 - P *values and deletes* uF on G (if P is ϕ -complete, i.e. full Match);
 G values and deletes uF on P

The two different variants of the feature F on the probe and the goal fulfill different tasks in the Agree operation. In terms of verbal agreement, F on the probe encodes φ features while F on the goal encodes case features. The unvalued — and hence uninterpretable — φ -features activate the (verbal) probe while the unvalued case feature is responsible for the activation of the goal as required in (9-b). Note, that after Agree has taken place, the case feature is valued and deleted and the goal cannot participate in a second Agree relation.

Now, previous accounts of PCC effects in Icelandic as shown in (10) are more or less incompatible with this definition of Agree.⁷

- (10) Mér Þóttu T *t_{mér}* [Þær vera duglegar]
 Me-DAT thought-3pl they-NOM to-be industrious
Holmberg and Hróarsdóttir (2003:1000)

Richards (2008) starts his analysis from a comparison of the Icelandic anti-agreement in (11) with anti-agreement in English expletive constructions like in (12).

- (11) Henni leiddust/*leiddumst
 Her-DAT bored-3PL/*bored-1PL
 strákar/þeir/*við
 the-boys-NOM/they-NOM/*we-NOM
 ‘The boys were bored.’
- (12) a. There is/*am only me.
 b. There remains/*remain only me.
 c. There is/are only us.

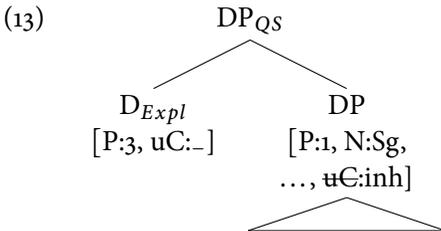
Both languages show a comparable behavior when it comes to constructions where the verb doesn’t show full agreement with the subject because some other nominal element occupies the subject position.⁸ In case of English, this element is the expletive occupying Spec,TP and forcing the real subject to stay

⁷See e.g. Chomsky (2000) for a theory that explains PCC effects by means of defective intervention. Note, that the definition of Agree in (9) has nothing to say about intervention. The reason why Richards (2008) wants to get rid of defective intervention is that in this theory, goals can still take part in an Agree relation with *valued* case features. Hence, case features are no longer needed to activate goals which in turn leaves the question of why case features are needed at all.

⁸This observation goes back to Chomsky (2000).

in Spec, ν P or lower in case of unaccusatives. In case of Icelandic, the item showing up in subject position is a *quirky* dative subject. At first sight, both the quirky subject and the expletive don't have much in common except that they are nominal elements and that they provoke similar anti-agreement effects. Expletives are semantically empty elements contrary to full DPs. Apart from that, expletives are expected to be directly merged in Spec,TP whereas subjects have to move to the subject position (cf. e.g. Adger (2003)).

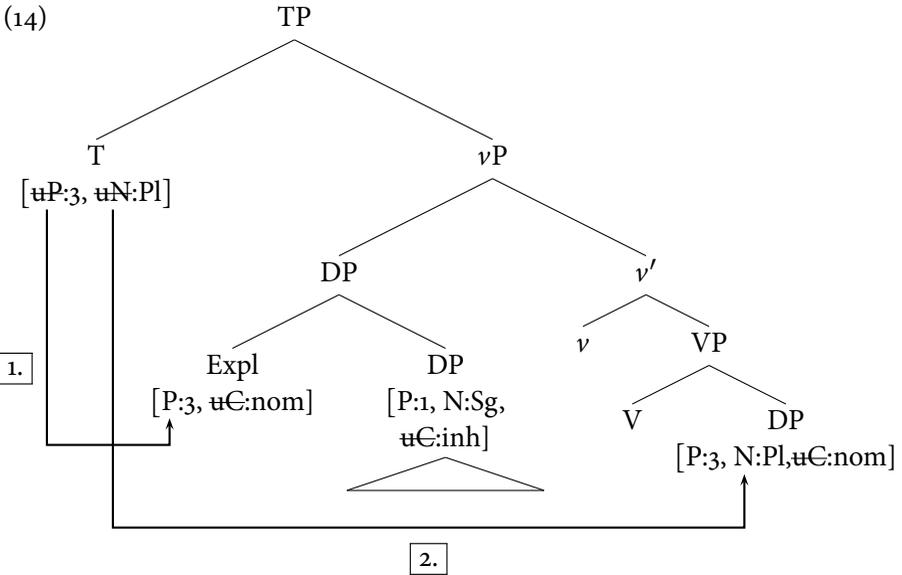
However, Richards (2008) deductively shows that both phenomena can successfully be treated alike and comes to the conclusion that quirky subjects in Icelandic contain a hidden expletive as shown in (13). Richards (2008) analyzes expletives as D elements which have an unvalued case feature and a minimal φ -feature set, i.e., they consist of a person feature with the value '3'⁹



In this structure, the expletive heads the complex DP_{QS} . Therefore, only the φ -features of the expletive are accessible to Agree.

The derivation of a quirky subject sentence in Icelandic looks like in (14).

⁹Richards (2008) is not explicit about the exact structure of quirky subjects. However, as he understands hidden expletives to be a DP-shell, I propose a structure similar to the structure suggested by Izvorski (1995).



The first step in the derivation in (14) is Agree between the person feature of T and the person feature of the expletive. Then, the φ -probe takes part in Agree with the direct object. Because the person feature's value is '3' now, the direct object must be third person as well, otherwise the matching condition of Agree would be violated (cf. (9-c)).

This sophisticated theory will now be applied to the Tagalog agreement data discussed in section 2.

4. Explaining PCC Effects

4.1. Verbal Agreement in Tagalog Simple *ang*-Sentences

In spite of the fact that Tagalog verbs don't show overt subject agreement in number and person like verbs in Indo-European languages do¹⁰, Tagalog verbal agreement can be reanalyzed as agreement in φ -features. If the analysis of

¹⁰In fact, number agreement in Tagalog is optionally possible (cf. Schachter and Otones (1972); Kroeger (1993); Schachter (1995)).

- (i) a. Nagsisikain na ang mga bata ng hapunan.
eat.NOM.PL already ANG PL child NG supper
'The children are eating their supper already.'

verbal agreement outlined below is on the right track, Tagalog and Icelandic PCC effects can be analyzed as two instances of the same phenomenon. My theory is based on the following assumptions:

The first theoretic assumption I want to make is about case assignment. Like Chomsky (2000); Richards (2008), I assume that case features and values are not present on heads but that case values are consequences of Agree, i.e., if an argument agrees with v , it receives accusative case but if it agrees with T, it receives nominative case. This has the consequence that two arguments can receive the same case value (if they agree with the same head).¹¹

The second assumption is about specificity. As specificity and definiteness are often used synonymously (e.g. Richards (1999)), I propose, according to Richards (2008), that non-specific, i.e., indefinite, DPs don't possess a person feature. So, the difference between specific and non-specific DPs is encoded in the presence or absence of a person feature

- (15) a. D_{spec} : [P:3, N:Sg, uC:–, ...]
 b. $D_{non-spec}$: [N:Sg, uC:–, ...]

The third and most innovational assumption is about subjects. Section 2.1 provided data which show that in Tagalog, subjects have to be specific. These sentences are repeated in (16).

- (16) a. mag-luluto ang lalaki ng adobo para sa asawa
 NOM.PAG-ASP.cook ANG man NG adobo P DAT spouse
 'The man will cook adobo for his wife.'
 (*A man will cook adobo for his wife.)
 (*The man will cook *the* adobo for his wife.)

External argument controls agreement

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- b. *Nagsisikain na si Maria ng hapunan.
 eat.NOM.PL already ANG Maria NG supper
 'Maria is eating her supper already.'

Schachter (1995:11ff.)

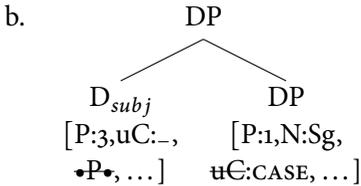
¹¹This assumption doesn't cause any empirical problems with respect to the distribution of *ang* and *ng*. In fact, many theories (e.g. Hirano (2005); Rackowski (2002); Richards (2005)) don't take these nominal particles to be case markers, i.e. their distribution does not depend on the case value of the arguments they appear on. But see Kroeger (1993) for a different view.

- b. \emptyset -lulutu-in ng lalaki ang adobo para sa asawa
 ASP.cook-ACC NG man ANG adobo P DAT wife
 ‘The man will cook *the* adobo for his wife.’
 (*The man will cook adobo for his wife.)

Internal argument controls agreement

Now, I propose that subjecthood in Tagalog is expressed by a special D head that resembles Richards’ (2008) quirky expletive. This head is specific itself and selects a specific DP. The case feature of the DP complement is valued by this head. The head itself has default φ -features, i.e., only a person feature with the value ‘3’ and an unvalued case feature. Therefore, the person feature of this head covers the person feature of its DP complement, regardless of whether it is first, second or third person. I will call this head the *subject expletive*, although it is not really an expletive but a phrasal head. The complex DP looks like the one in (17).

- (17) a. NUMERATION:
 $N = [D_{subj}[P:3, uC:-, \bullet P\bullet, \dots], DP[P:1, N:Sg, uC:-, \dots], \dots]^{12}$



Note that in Tagalog, the subject expletive is an obligatory part of every derivation. This seems odd at first sight but it enables us to analyze Icelandic and Tagalog with the same means.

To show how this complex DP enters the derivation and how agreement in Tagalog works according to my suggestions, I will exemplify my theory with the sentences given in (18) (both arguments are full DPs), (19) (one argument is a pronoun) and (20) (both arguments are pronouns).

- (18) a. Lutu-**in** ng lalaki **ang** adobo.
 cook-ACC NG man ANG adobo.
 ‘The man cooks the adobo.’

Rackowski (2002:112)

¹²Features in bullets (•F•) trigger Merge while features triggering Agree are written ‘uF:–’.

- b. Nag-luto ang lalaki ng adobo.
 NOM-cook ANG man NG adobo.
 ‘The man cooked adobo.’ *Rackowski and Richards (2005:14)*
- (19) a. Baka kumain siya ng tambakol
 maybe NOM.ate ANG.he NG mackerel
 ‘Maybe he ate mackerel’ *Richards (1999:8)*
- b. Baka kinain niya ang tambakol
 maybe ACC.ate NG.he ANG mackerel
 ‘Maybe he ate the mackerel’ *Richards (1999:8)*
- (20) a. Sinampal niya ako.
 ACC.ASP.slap NG.he ANG.I
 ‘He slapped me.’ *Rackowski (2002:88)*
- b. *Sumampal ko siya.
 NOM.ASP.slap NG.I ANG.he
 ‘He slapped me.’ *Rackowski (2002:88)*

Firstly, I will explain the structure of (18-a). The derivation starts in (22) by ν merging with VP. At first, the subject expletive selects the internal argument *adobo*. This complex DP is then selected by V and the VP by ν . The feature specification that I assume for ν is given in (21).

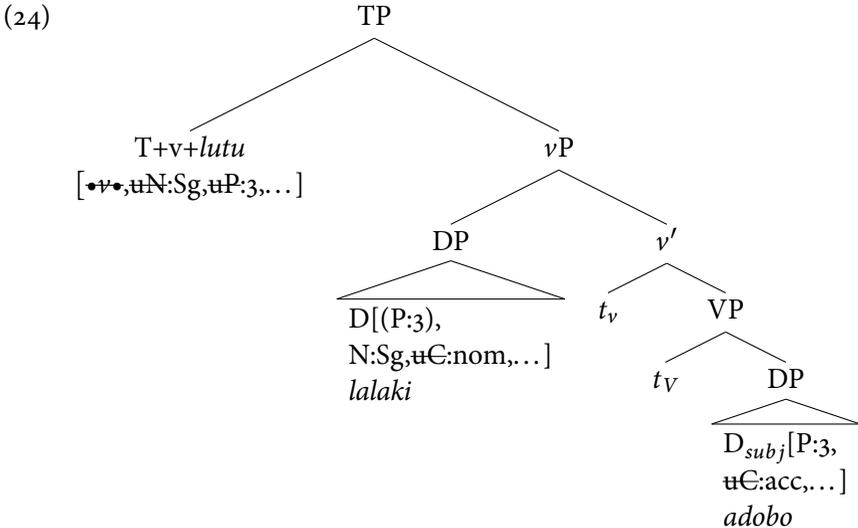
The peculiarity of Tagalog is that the verbal probe in Tagalog is split. The person feature is present on ν and the number feature on T.¹³ By head movement both these features are brought together.

- (21) FEATURE SPECIFICATION OF ν IN TAGALOG
 ν [•V• < •D•¹⁴, uP:–, ...]

¹³See also Bějar and Řezáč (2003) for the nature of split probes and their distribution.

¹⁴I assume that all features •F• triggering Merge are ordered on heads (cf. Müller (2010)). This relation is encoded by the sign “<”

Now, T enters the derivation. T has an unvalued number feature and looks for a matching goal. The first goal it finds is the external argument which, then, receives nominative case. Before agreement, v together with the person feature has moved to T. The tree in (24) shows the missing steps.



Before dealing with (18-b), let me shortly motivate head movement of v in Tagalog. The main assumptions are that T is a head that encodes temporal information and that Tagalog tense, which is actually better called aspect as Schachter and Otnes (1972:361ff.) and Kroeger (1993:15ff.) point out, is never periphrastic. Obviously, the most simple way to get non-periphrastic verbal forms encoding information that is located on different heads is head movement (cf. Embick and Noyer (2001); Embick and Marantz (2008)). (See also Baker (1988) for an extensive investigation of head movement and its constraints.) Examples of the three main aspects of Tagalog are given in (25).¹⁵

¹⁵Note that Tagalog exhibits a fourth aspect which is recent perfective. This aspect is, however, only possible with some verbal stems and therefore not listed here. An example of the recent perfective was given in the beginning of section 2.2 in (3).

(25) ASPECT MARKERS IN TAGALOG (Kroeger (1993:16))

Basic Form	Perfective Aspect	Imperfective Aspect	Contemplated Aspect
bigy-an <i>give</i>	b-in-igy-an	b-in-i-bigy-an	bi-bigy-an
mag-luto <i>cook</i>	nag-luto	nag-lu-luto	mag-lu-luto
gawa-in <i>do, make</i>	g-in-awa	g-in-a-gawa	ga-gawa-in

Now, we can turn to the derivation of (18-b), repeated in (26).

- (26) Nag-luto ang lalaki ng adobo.
 NOM-cook ANG man NG adobo.
 ‘The man cooked adobo.’

In this case, the external argument (EA) is the subject and controls person agreement. The internal argument (IA) has to be non-specific, otherwise the derivation crashes. This can be seen in (27).

- (27) a. MERGE OF A SPECIFIC IA AND V
 [_{VP} luto [_{DP} D[P:3, N:Sg, uC:-] adobo]]
 b. MERGE OF *v* AND VP
 [_{v'} *v+luto*[•V• < •D•, uP:- , ...] [_{VP} *t_V* [_{DP} D[P:3, N:Sg, uC:-] adobo]]]
 c. AGREE AND MERGE OF THE EXTERNAL ARGUMENT
 [_{vP} [_{DP} *D_{subj}*[P:3, uC:-] lalaki] [_{v'} *v+luto*[•V• < •D•, uP:3, ...] [_{VP} *t_V* [_{DP} D[P:3, N:Sg, uC:acc] adobo]]]]
 d. MERGE OF T AND AGREE
 [TP T+*v+luto*[uN:- , uP:3, ...] [_{vP} [_{DP} *D_{subj}*[P:3, uC:-] lalaki] [_{v'} *t_v* [_{VP} *t_V* [_{DP} D[P:3, N:Sg, uC:acc] adobo]]]]]
 ⇒ Crash

The derivation crashes because the person feature is valued by the internal argument while the number feature cannot be valued either by the external argument or by the internal argument. The external argument is covered by the subject expletive shell and the internal argument is already deactivated. Thus, the external argument doesn't receive case and the uninterpretable number

feature on T is not deleted. The consequence of all this is that the internal argument has to be non-specific. In fact, if the internal argument is non-specific, the derivation converges.

- (28) a. MERGE OF A NON-SPECIFIC IA AND V
 [VP *luto* [DP D[N:Sg, uC:-] *adobo*]]
- b. MERGE OF ν AND VP
 [ν' ν +*luto*[$\bullet V \bullet$ < $\bullet D \bullet$, uP:-] [VP t_V [DP D[N:Sg, uC:-] *adobo*]]]]
- c. MERGE OF THE EXTERNAL ARGUMENT (AGREE IS NOT POSSIBLE)
 [ν_P [DP D_{subj} [P:3, uC:-] *lalaki*] [ν' ν +*luto*[$\bullet V \bullet$ < $\bullet D \bullet$, uP:-] [VP t_V [DP D[N:Sg, uC:-] *adobo*]]]]]]
- d. MERGE OF T AND AGREE WITH IA AND EA
 [TP T+ ν +*luto*[\mathfrak{uN} :Sg, \mathfrak{uP} :3] [ν_P [DP D_{subj} [P:3, \mathfrak{uC} :nom] *lalaki*] [ν' t_ν [VP t_V [DP D[N:Sg, \mathfrak{uC} :nom] *adobo*]]]]]]]]

The derivation in (28) needs some explanation. When ν and VP merge in (28-b), the person feature on ν cannot be valued and deleted because the internal argument is non-specific and, thus, doesn't have a person feature. Consequently, *adobo* cannot receive accusative case. In (28-d), T is merged and ν head-moves to T. The undeleted person feature is then present on T and has to be valued by the external argument. The external argument in turn receives nominative case. The number feature on T is valued in a second instance of

Agree — this time with the internal argument.^{16,17} The internal argument gets nominative case as well.

The next sentences to have a look at are the ones in (19), repeated in (29).

- (29) a. Baka kumain siya ng tambakol
 maybe NOM.ate ANG.he NG mackerel
 ‘Maybe he ate mackerel’

¹⁶In my analysis, I don’t take phases into account. If vP is a phase, the complement of v is no longer accessible to T anymore. This problem could be solved by allowing movement of the internal argument to Spec, vP if the person feature cannot be deleted. This could be legitimated by the principle of *Phase Balance* (Müller and Heck (2000)). The internal argument must be moved to the edge of the vP phase because it has a number feature that must be available for uN on T.

- (i) PHASE BALANCE (Müller and Heck (2000:221f.))
 Phases must be balanced: If P is a phase candidate, then for every feature F in the numeration there must be a distinct potentially available checker for F.

¹⁷The two derivations above show that in my theory, number agreement always applies between T and the non-subject. Now, the data in fn. 10 show that it is always the subject that controls number agreement. This seems contradictory at first sight but let me sketch how overt number agreement can be integrated into the system outlined above. First of all, overt number agreement marking is only optional in Tagalog. Second, plural arguments possess a marker *mga*. Third, number agreement is only possible if the external argument is the subject. (See Aldridge (2006) for details and more data.)

- (i) a. Nag-si-basa ang mga bata ng liham.
 NOM-PL-read ANG Pl child NG letter
 ‘The children read a letter.’ Aldridge (2006:4)
 b. *Si-ni-basa ng bata ang mga liham.
 PL-ACC-read NG child ANG PL letter
 ‘The child read the letters.’ Aldridge (2006:5)

First, the optionality of number agreement can be explained by letting v optionally have a number feature in addition to its person feature and T having a number feature. That means there are *two* number features in the derivation.

- (ii) FEATURE SPECIFICATION OF v_{pl}
 v [v , ..., uP:–, uN:–]

Second, I suggest that the subject expletive looks different in these plural contexts.

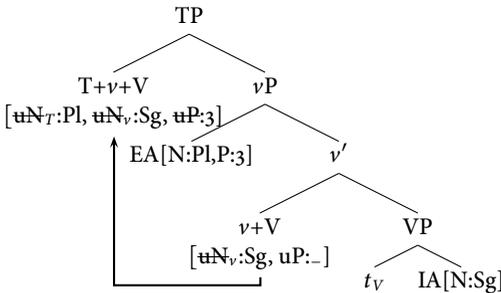
- (iii) D_{subj} [P:3, N:Pl, uC:–, •P•, ...]

Third, the tree in (iv) shows how number agreement is enabled.

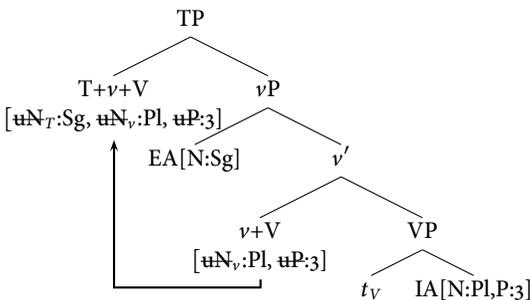
- b. Baka kinain niya ang tambakol
 maybe ACC.ate NG.he ANG mackerel
 ‘Maybe he ate the mackerel’

The difference between these sentences and the ones in (18) is that a pronoun is involved. Like Rackowski (2002), I assume that pronouns are obligatorily specific. This has some consequences. First of all, if pronouns in Tagalog are obligatorily specific, i.e., they always have a person feature, they are forbidden in internal argument position if they are not the subject. If the internal argument is specific but the external argument is the subject and controls verbal agreement, the derivation is supposed to crash. That was shown in (27). That in turn means that there cannot be nominative agreement on the verb if the internal argument is specific. This is not only a theoretical outcome but also an empirical fact that can be seen in (30) (cf. Rackowski and Richards (2005)).

(iv) a. NUMBER AGREEMENT WITH EXTERNAL ARGUMENT



b. NUMBER AGREEMENT WITH INTERNAL ARGUMENT



The trees in (iv) show that plural agreement is possible with both arguments. So why can plural agreement markers only occur in the first case? I assume that the number feature [uNT] on T overwrites the number feature [uNv] on v. So, overt plural marking is only possible in the first case.

Finally, my theory is also able to explain why configurations with two pronouns require agreement with the internal argument, as was shown in (20). Since pronouns are obligatorily specific, the internal argument is always able to value the person feature on ν . Thus, the internal argument has to be the subject and has to control agreement on the verb. The reason is the same as in (27).

After having derived simple *ang*-sentences, I will now turn to multiple *ang*-sentences. But before doing so, I would like to discuss two questions the derivations above raise:

1. Why are there no Icelandic-like PCC effects in the derivations above? Look e.g. at the derivation in (32). The internal argument is the subject, i.e., it values the person feature on ν . Then, ν moves to T and T agrees with the external argument in number. So, the person value should impinge on the second Agree operation as seen above in section 3 in Icelandic. However, I suggest, that the number and the person feature are separate probes, that means the Matching condition of Agree is fulfilled in the Tagalog derivations above. Thus, in the definition of Agree above, F in Icelandic means $uN+uP$ while F in Tagalog is either uN or uP .¹⁸
2. How can the morphological realization of the verb be explained? The morphological realization of verbal agreement is more complicated than in Rackowski's analysis. It is clear that in this respect, her theory has an advantage over mine. What the two theories have in common, however, is that both assume a realizational morphology; that means that vocabulary insertion takes place after syntax and the vocabulary items depend on the prior manipulation of the syntactic nodes. Morphological realization in Rackowski's model is as in (33).

$$(33) \quad T[\mathfrak{u}\mathfrak{C}:\text{nom}] \leftrightarrow \text{NOM} \\ T[\mathfrak{u}\mathfrak{C}:\text{acc}] \leftrightarrow \text{ACC}^{19}$$

¹⁸This also explains why the internal argument can receive case by ν at all. Since the probe has only a person feature and the goal has only a person feature (because it is covered by the subject expletive), the probe is complete and can, therefore, value the case feature of the internal argument. Therefore, the last condition of Agree in (9-e) is fulfilled, too.

¹⁹Tagalog verbal agreement markers are manifold and depend on the verbal stem. The

In my theory, the difference between accusative and nominative verbal agreement can only be encoded at the point where person agreement takes place. That is, if the person feature on ν can be valued prior to head-movement, as in (23), ν is marked for agreement by a diacritic ‘acc’.²⁰ Then, vocabulary insertion rules as in (34) predict the correct distribution.

- (34) $T+\nu^{acc} \leftrightarrow \text{ACC}$
 $T+\nu \leftrightarrow \text{NOM}$

4.2. Verbal Agreement in Tagalog Multiple *ang*-Sentences

Above, multiple *ang*-sentences have been introduced by first considering data which exemplify that some verbal forms in Tagalog don’t have a verbal agreement marker and no *ang*-phrase. The sentence is repeated in (35).

- (35) Kabibili lang ng lalaki ng tela
 REC.PERF.bought just NG man NG cloth
 ‘The man just bought the cloth.’

Of course, such sentences have subjects and may contain specific arguments like (35) shows. I claim that the difference between these derivations and the ones above is the choice of ν . I would like to suggest that recent perfective constructions contain a ν that doesn’t possess a person feature. So person agreement is not possible. That is the reason why the subject is not *ang*-marked. In all other aspects, ν has a person feature.^{21,22}

VI insertion rules are therefore simplified. NOM stands for a marker that indicates agreement with the external argument while ACC stands for agreement with the internal argument. For an overview of verbal agreement markers, see e.g. Schachter and Otnes (1972).

²⁰Note that this insertion violates the inclusiveness condition (Chomsky (1995:228)).

²¹In this situation, ν wouldn’t value the case feature of the internal argument and T could not value case on the subject. But since the particle *lang* is obligatory in that verbal form as Richards (2005) points out, it could be a head that values case on the internal argument.

²²Up to this point, we have seen that Tagalog must contain three different ν heads.

- (i) a. NON-DEFECTIVE ν
 $\nu = [\nu, \dots, \text{uP:}_-]$
 b. DEFECTIVE ν (RECENT PERFECTIVE)
 $\nu_{rp} = [\nu, \dots]$

If one of the arguments is *ay*-fronted, it is marked by *ang*. This means that *ay*-fronting must be the second trigger for *ang*-marking. That *ang* has two different functions has already been discussed in Hirano (2005). He claims that *ang* in preverbal position encodes topichood (see also Kroeger (1993)). But note that also adverbs and clauses can be *ay*-moved (cf. Schachter and Otnes (1972)).

- (36) a. Madalas ay pumupunta siya dito
 often AY IMPERF.NOM.go ANG.he here
 ‘He comes here often.’
- b. Pagdating ko sa-Pilipinas ay nagpunta ako
 arriving NG.I DAT-Philippines AY PERF.NOM.go ANG.I
 sa-Baguio.
 DAT-Baguio
 ‘On arriving in the Philippines, I went to Baguio.’

Kroeger (1993) discusses that adverbs in front of *ay* have focus function, in contrast to arguments. Hirano (2005), on the other hand, claims these adverbs to be adverbial topics. I will not deal here with the question which of these analyses is right but rather suppose that *ay* is a head that has an unvalued information structure feature [uINF:-] and triggers Agree and movement of an element with a valued information structure feature. The feature ‘INF’ can have various values. In the cases discussed below the value is always ‘top’. In order to allow Agree between *ay* and the topic, the latter must be active, too. I propose that this feature is [uCHECK:-] which is valued by *ay*. *Ang*-marking is a consequence of this movement.²³

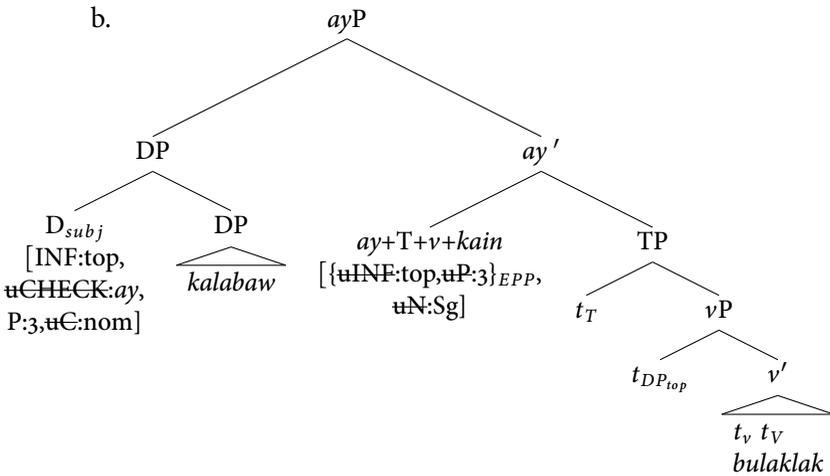
- (37) ANG-MARKING
 An argument receives the marker *ang* if ...
- a. it values the person feature of the verbal probe.
 b. it is affected by *ay*-fronting.

c. PLURAL *v*
 $v_{pl} = [v, \dots, uP:-, uN:-]$

²³In most *ay*-fronting sentences, it is the subject that controls person agreement and is *ay*-fronted. Thus, in these sentences, the subject would be *ang*-marked twice. Therefore, a filter is needed that guarantees that a single argument can only receive one *ang* marker.

Next, I assume that the distribution of the topic feature [INF:top] is restricted: First of all it can only be present on specific DPs. This restriction holds for all Tagalog speakers. Furthermore for most speakers the topic feature can only be present on the subject of a sentence. Because of this, the *ay*-fronted element is always the subject.²⁴ This theoretical outcome coincides with the empirical facts. The structure of a simple *ang*-sentence involving *ay*-fronting is given in (38).

- (38) a. Ang kalabaw ay kumain ng bulaklak
 ANG water.buffalo AY NOM.ate NG flower
 ‘The water buffalo ate the flower.’



An explanation of the structure in (38) is in order. First, facing that *ay*-fronting is a movement operation, I take Move to be Agree + EPP. (See Chomsky (2000, 2001); Roberts (2007) for details and Chomsky (2008) for a discussion of this definition of Move.) So, additionally to the unvalued information structure feature [uINF:–], *ay* has an EPP feature. This EPP feature is, however, tied to the person feature as well, indicated by curly brackets.²⁵ Therefore, the person

²⁴This claim only holds for simple *ay*-fronting constructions. In multiple *ay*-fronting constructions, the fronted argument must not be the internal argument, cf. (5), (6).

²⁵The derivation necessarily implies that there is head movement of T to *ay*. In this case however, head movement is not as easily justified as above since *ay* is a free particle. Nevertheless, head movement could be justified by the nature of the EPP feature. If the EPP feature is shared by person Agree and INF-Agree, head movement is necessary in order to enable movement at all.

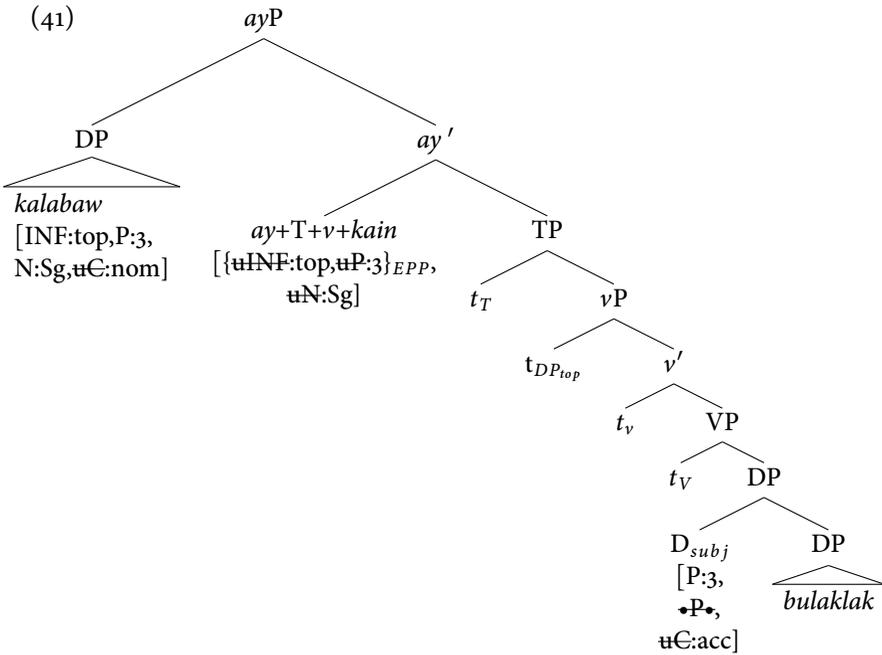
and the information structure feature constitute a probe with the result that the phrase which is extracted has to match the person value. Because the subject always values the person feature, otherwise the derivation would crash, and because the subject is always third person due to the subject expletive, the element in *Spec,ayP* has to be third person, too. This assumption will also explain the PCC effect in multiple *ang*-sentences as shown now.

Some speakers allow multiple *ang*-sentences while others don't allow them (Richards (2005)). In my theory, this parametric difference is due to the distribution of the topic feature. For most speakers, [INF:top] is only present on subject DPs. But for some speakers, [INF:top] can be present on any specific DP. The differences are shown in (39).

- (39) a. NO MULTIPLE ANG:
 D_{subj} [INF:top, •P•, P:3, uC:–,...]
 b. MULTIPLE ANG:
 D_{subj} [INF:top, •P•, P:3, uC:–,...],
 D_{spec} [INF:top, P:3, N:Sg uC:–,...]

In a nutshell, the speakers that allow multiple *ang*-sentences can distribute the subject and the topic function to different arguments. The derivation for the multiple *ang*-sentence in (40) is shown in (41).

- (40) Ang kalabaw ay kinain ang bulaklak
 ANG water.buffalo AY ACC-ate ANG flower
 'The water buffalo ate the flower.'



The internal argument is the subject while the external argument is the topic. Consequently, both arguments are specific. The subject values the person feature on v . After merging T, v head-moves to T and the external argument values the number feature on T. Then, the complex T head-moves to *ay*. At this point, the information structure and the person feature constitute a probe. So, the external argument having the matching information structure feature has to be third person to make Match between the probe and the goal possible. Thus, the two assumptions of an obligatory subject expletive and of Tagalog *ay*-fronting being agreement in information structure and person is all we need to derive the PCC effect in Tagalog multiple *ang*-sentences.

If the external argument is the subject, the derivation crashes for the same reason as in the unsuccessful derivations above. Remember that now the internal argument is the topic. Hence, it must be specific which means it has a person feature. So, the internal argument values the person feature on v and gets deactivated and the external argument is left to value the number feature. Because it is the subject and just has a person feature, it is not able to do so. So, my assumptions about specificity and Agree additionally explain why “accusative” agreement in multiple *ang*-sentences is obligatory (cf. (5), (6)).

In summary, my suggestion to explain the PCC effect in Tagalog multiple *ang*-sentences is a head that selects a specific DP and has default φ -features (third person and no number feature) — the so-called *subject expletive*. So the term subject in Tagalog can now be defined as the argument which contains the subject expletive. Furthermore, I have proposed that the verbal φ -probe in Tagalog is split: ν bears the person feature and T the number feature. The PCC effect occurs because a probe can consist of a set of features which all play a role in the matching condition of Agree. In Tagalog, this feature set consists of the person and the information structure feature which has the natural outcome that PCC effects occur only in *ay*-fronting constructions. Finally, *ang* is an ambiguous marker that expresses *ay*-fronting on the one hand and person agreement on the other hand.²⁶

Before concluding this article, the next section will summarize and discuss two previous theories of Tagalog: one deals with Tagalog verbal agreement (Rackowski (2002)) while the other one accounts for Tagalog PCC effects.

5. Other Theories of Tagalog

5.1. Tagalog Agreement

Rackowski (2002) analyzes the agreement patterns of Tagalog as agreement in case features. She assumes that the verbal head T values case on the one hand, but is looking for a case value on the other hand. The case feature of T is, then, valued by the highest argument in the structure, which can be the external or internal argument. To let the internal argument be structurally higher than the external argument, Rackowski (2002) assumes object shift in Tagalog, that is, specific objects move to a specifier position of a verbal head, here Voice, that is higher than the external argument position. Being in Spec,VoiceP entails *ang*-marking. The derivation for the sentence in (42-b) (repeated from (1-b)) is given in (43).

²⁶Note that in both contexts where *ang*-marking is involved, matching of the person feature is necessary. So, the morphological realization could be reduced to the rule that whenever Agree involves the person feature, the goal will be morphologically realized with a marker *ang*.

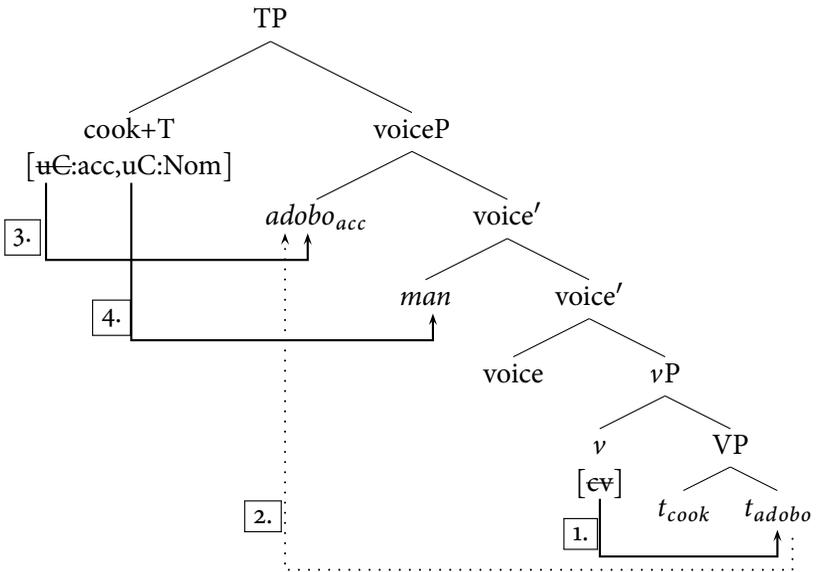
- (42) a. mag-luluto ang lalaki ng adobo para sa asawa
 NOM.PAG-ASP.cook ANG man NG adobo P DAT spouse
 ‘The man will cook adobo for his wife.’
 (*A man will cook adobo for his wife.)
 (*The man will cook *the* adobo for his wife.)

External argument controls agreement

- b. ∅-lulutu-in ng lalaki ang adobo para sa asawa
 ASP.cook-ACC NG man ANG adobo P DAT wife
 ‘The man will cook *the* adobo for his wife.’
 (*The man will cook adobo for his wife.)

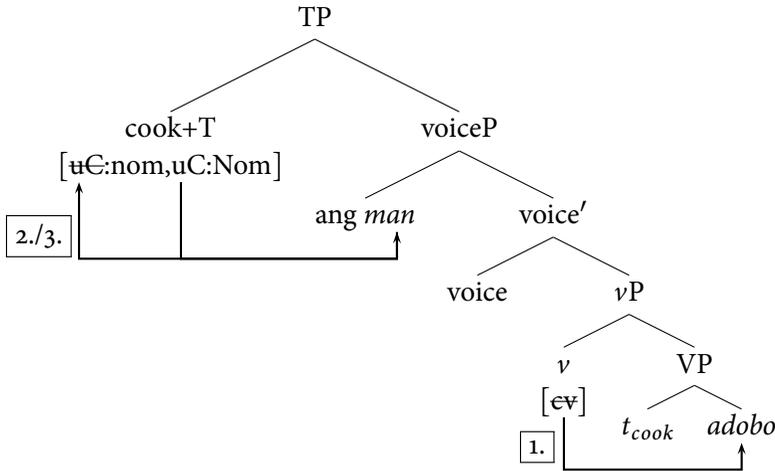
Internal argument controls agreement

- (43) STRUCTURE FOR (42-B) (WITHOUT BENEFACTIVE PHRASE)



Example (42-a) can be derived as follows: the internal argument is again merged in VP and receives case by *v*. This time, the internal argument is not specific and so not moved to Spec, VoiceP. Since the internal argument does not intervene now, T can value nominative case on *man* and *man* can value the uninterpretable case feature back on T. The derivation is represented in (44).

(44) STRUCTURE FOR (42-A)



The main difference between the new account of Tagalog and Rackowski's analysis is the feature that plays a role in Agree. While Rackowski (2002) analyzes Tagalog verbal agreement as agreement in case features, I argued in the last section that the verbal probe consists of a person and a number feature and that case features are present only on arguments. Thus, in my theory, verbal agreement is more uniform across languages while the differences between Tagalog and Indo-European languages in Rackowski's theory are much bigger.²⁷

Furthermore, the difference between unvalued and valued features is not entirely clear. The derivation above in (44) only converges because case features are not a reflex of Agree between a probe and a goal, but because the valued case features of verbal heads *must* value the case features of the arguments. So, in Rackowski's analysis of (42-a), there are actually two instances of Agree (Rackowski (2002:115)) In the first one, the valued case feature of T values the unvalued case feature of the external subject while in the second one, the now valued case feature of the external argument values the unvalued

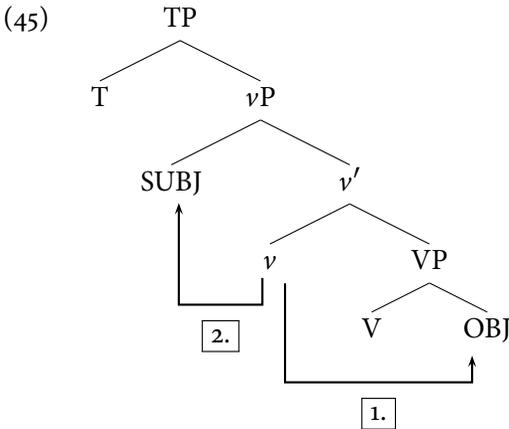
²⁷Note that the system of Rackowski (2002) allows simpler morphological rules of vocabulary insertion. In section 4.1, I showed that my theory needs some extra feature or diacritic to make the correct insertion of verbal agreement markers possible. Vocabulary insertion in Rackowski's theory is more simple in that verbal agreement markers are realizations of different values of the verbal case probe.

case feature of T. Clearly, this understanding of Agree differs from Chomsky (2000, 2001).

Finally, as briefly discussed in footnote 10, 17 and subsection 4.2, Tagalog shows agreement in number features and PCC effects. Thus, φ -features should somehow be present on the verbal probe in order to derive both these two phenomena. In the last section, I have argued that Tagalog verbal agreement in φ -features suffices to explain all phenomena mentioned here. The additional case agreement which Rackowski assumes is, however, superfluous and inelegant.

5.2. Tagalog PCC Effects

Richards' (2005) analysis of the PCC effects found in Tagalog is shown in (45).



In his analysis, Richards (2005) combines properties of previous probe-goal accounts. Unlike Rackowski (2002), he assumes that the probe causing verbal agreement is located on v . Following Anagnostopoulou (2003, 2005) (developed for Icelandic *quirky* subjects), he adopts a theory of multiple agreement. Anagnostopoulou (2003) assumes that the person feature's value is determined in the first instance of Agree. In further Agree operations, this value will necessarily affect Match between the probe and the goal. In this sense, Richards' (2008) analysis of PCC effects is similar to hers. This means the probe on v is able to agree with both the internal and the external argument. The last ingredient is the *Agree-before-Merge* theory of Řezáč (2003). Since there are two possibilities for the derivation to continue after merging v and

VP, v has to choose finding a goal for its probe over merging the external argument with v' . To make the derivation work, one additionally has to assume a non-standard definition of the *Agree* operation that allows probes to search for goals they don't c-command, i.e. one has to change the definition of *Agree* in (9-a) from c-command to *m-command* as defined in (46).

- (46) M-COMMAND(Chomsky (1986))
 α m-commands β iff
- a. α does not dominate β and
 - b. some projection of α dominates β

However, this account suffers from several problems: the main problem of the analysis is that the structure doesn't contain any hint about *ay*-fronting. The structure simply predicts that the PCC effects of the Icelandic type should occur in every derivation.

Consequently, there is no difference between *ay*-fronting constructions and simple sentences anymore. However, the main difference between Icelandic and Tagalog is that these effects in Tagalog occur *only* in these movement contexts. It is not clear to me how the analysis of Richards (2005) can account for this fact.

Finally, the speaker variation in multiple *ang*-sentences which Richards (2005) mentions is not taken into account. The structure in (45) implies that there should be no variation between speakers at all, which, however, exists.

In sum, both accounts presented in this section are inferior to the theory developed in section 4. The main advantage of the system presented there is that it is able to explain both verbal agreement and PCC effects by using the quirky expletive account of Richards (2008) and making use of the variable meaning of the feature (set) 'F' in his definition of *Agree*.

6. Conclusion

In this paper, I have transferred Richards' (2008) analysis of quirky case in Icelandic to Tagalog agreement and PCC effects. Both languages have often been noticed to show comparable but not identical phenomena in this domain (cf. e.g. Richards (1999)). My account was built up on the following assumptions: (i) Subjects in Tagalog are complex DPs. They consist of the argument DP itself and a *subject expletive*, i.e., a head that selects a specific DP and has the

feature specification of an expletive that Richards (2008) has proposed to be [P:3, uC:-]. (ii) Topics are arguments with a feature [INF:top] that is present only on subject DPs or — in the case of multiple *ang*-sentences — on specific non-subject DPs, as well. (iii) The φ -probe is split. The person feature is located on v and the number feature on T. Both these features come together by head movement. (iv) The particle *ay* is the head of a verbal projection above T. It has a feature [uINF:-] that forces movement of a phrase with a feature ‘INF’ that matches the valued person feature because the information structure feature INF and the person feature constitute a feature set. (v) Since every sentence contains a subject DP, the person feature’s value is always ‘3’. The element to be extracted has to be third person therefore.

In conclusion, I can say that my theory is able to derive the behavior of verbal agreement in Tagalog transitive sentences, the distribution of specificity that has been discussed²⁸ and, above all, the PCC effect in multiple *ang*-sentences. Additionally, I have made a suggestion as to how the parametric difference between speakers can be captured.

Finally, it should be mentioned that Tagalog has a second construction where PCC effects can occur, namely in long-distance *ay*-fronting constructions (Richards (2005)). For reasons of space, I have not considered this type of construction but leave it to further research.

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²⁸Both these phenomena have been derived by Rackowski (2002), too.

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