

RESEARCH

Raising applicatives and possessors in Tagalog

Yining Nie

New York University, NY, US

yiningnie@nyu.edu

This paper argues that the thematic introduction of applied arguments and their syntactic licensing are independent components in the syntax of applicative constructions in Tagalog. I present novel data on Tagalog external possession, showing that external possessors and other nominals that remain unlicensed in their thematic position move to the specifier of an athematic raising applicative head (Georgala 2012) in order to be licensed and assigned nominative Case by Voice. The Locative Voice and Circumstantial Voice markers are shown to be two morphological reflexes of the same raising applicative head. The proposed raising applicative analysis, paired with the assumption that Voice is the only source of structural Case in the language, provides an explanation for the high applicative-like behaviour of even apparent low applicative constructions, as well as the obligatory promotion of applied arguments to pivot in Philippine-type voice languages.

Keywords: applicative; external possession; Tagalog; Voice

1 Introduction

It is by now generally agreed upon that objects can raise to a derived object position for licensing or discourse effects (Holmberg 1986; Mahajan 1990; Johnson 1991; Koopman & Sportiche 1991; Diesing 1992; Chomsky 1993; Bobaljik 1995; Koizumi 1995; Sportiche 1998; Travis 2001; a.o.). There is also now a growing body of work arguing for a derived *applicative* position to which a non-core argument may raise (Baker & Collins 2006; Georgala et al. 2018; Georgala 2012; Deal 2013; Massam 2015). The non-core argument in question first merges in a thematic position and then undergoes movement to the specifier of a linker or applicative head which licenses the argument but assigns no additional thematic role. These *raising applicatives*—a term borrowed from Georgala (2012)—have been employed to account for the behaviour of goals in double object constructions (Baker & Collins 2006; Georgala et al. 2008; Georgala 2012), instruments in high applicative constructions and causees in causatives of transitives (Massam 2015). Deal (2013) makes use of a raising applicative to account for external possession in Nez Perce: the external possessor is base generated in a thematic position internal to the possessum DP but raises to an athematic position, where it is assigned accusative Case and controls object agreement on the verb.

In this paper, I present novel data on external possession in Tagalog, which provide support for (i) an applicative analysis of external possession and (ii) a raising applicative approach to applicative morphology in the language in general. As in other Philippine-type languages, Tagalog voice morphology tracks what is called the pivot (Schachter 1976; Dixon 1979; 1994; Foley & van Valin 1984; Klaiman 1991; Kroeger 1991; Nolasco 2005; a.o.), which is marked with nominative Case and receives a definite/specific interpretation. When the pivot is a theme or patient, the verb generally appears in the Patient

Voice (1a). When the pivot is a source, goal or location, the verb appears in the Locative Voice (1b).

- (1) a. B<in>ili- \emptyset [ng babae] [ang libro] [para sa bata].
 <PFV>buy-PV GEN woman NOM book for OBL child
 ‘The woman bought the book for the child.’
- b. B<in>ilh-an [ng babae] [ng libro] [ang bata].
 <PFV>buy-LV GEN woman GEN book NOM child
 ‘The woman bought the child a book.’

The Locative Voice affix *-an* has been analysed as a thematic low applicative marker in Tagalog (Rackowski 2002; Aldridge 2004). However, the Locative Voice can also be used to express external possession. (2a) shows a simple transitive clause with a DP-internally possessed theme, where the internal possessor has genitive Case and modifies the nominative theme, which conditions Patient Voice on the verb. In the external possession variant in (2b), the external possessor is expressed as the nominative pivot and triggers Locative Voice on the verb; the possessum surfaces with genitive Case.

- (2) Schachter & Otnes (1972: 393)
- a. <In>ayos- \emptyset [niya] [ang buhok ni Tina].
 <PFV>arrange-PV 3SG.GEN NOM hair GEN.PN Tina
 ‘She arranged Tina’s hair.’
- b. <In>ayos-an [niya] [ng buhok] [si Tina].
 <PFV>arrange-LV 3SG.GEN GEN hair NOM.PN Tina
 ‘She arranged Tina’s hair.’

This paper argues that external possession in Tagalog is a case of possessor raising rather than control as it does not introduce a new thematic role and is not limited to animate or affected arguments. External possession is, however, restricted to transitive verbal predicates with particular event properties, suggesting that the possessor first merges in the syntax as a thematic low applicative rather than a DP-internal possessor. I propose that the thematic low applicative cannot license the possessor; the possessor must therefore raise to an athematic applicative position for licensing and nominative pivot marking by Voice. This athematic applicative head is spelled out as the Locative Voice affix in Tagalog. My proposal therefore takes Locative Voice morphology not to be a thematic applicative but a raising applicative, which triggers movement of an argument for licensing purposes but does not assign it a new thematic role (Georgala et al. 2008, Georgala 2012).

The raising applicative approach developed for external possessors can be extended to all Locative Voice constructions in Tagalog. Pivots associated with Locative Voice encompass a wide range of thematic relations but nonetheless exhibit identical syntactic behaviour. A raising applicative analysis of Locative Voice provides a natural account of this: arguments that are introduced in a variety of thematic positions may raise to the same applicative position, marked by Locative Voice. A raising applicative analysis of Circumstantial Voice, previously taken to be a thematic high applicative in the literature (Rackowski 2002; Aldridge 2004; 2012; Chang 2015), has the same advantage. I present evidence from instrumental applicatives and causatives of transitives suggesting that Circumstantial Voice is also of the raising applicative type. Locative Voice and Circumstantial Voice are shown to be two contextual spell-outs of the same raising applicative head and thus exist in complementary distribution in Tagalog.

Applied arguments, despite also participating in the voice system of the language, are syntactically distinct from core arguments in a crucial way. Unlike agents and themes, applied arguments are generally never assigned genitive Case (3a); they must be marked as the nominative pivot (3b) (Bell 1976; 1983; Pearson 2001; Travis 2001; Rackowski 2002; Aldridge 2004; 2012).

- (3) a. *B<in>ili-Ø/**an** [ng babae] [ang libro] [ng bata].
 <PFV>buy-PV/LV GEN woman NOM book GEN child
 Intended: 'The woman bought a/the child a book.'
- b. B<in>ilh-**an** [ng babae] [ng libro] [ang bata].
 <PFV>buy-LV GEN woman GEN book NOM child
 'The woman bought the child a book.'

In the approach advanced in this paper, agents and themes are licensed and assigned Case in-situ. Applied arguments, on the other hand, are not licensed in their thematic position and must move to the raising applicative position for licensing and to be made accessible to Voice for nominative Case assignment. My proposal thus accounts for the obligatory promotion of applied arguments to pivot, which must be explained in any approach to voice morphology in Tagalog and other Philippine-type languages.

The paper is structured as follows. Section 2 lays out my basic assumptions about the interaction of nominal licensing and Case assignment in the Tagalog voice system. The two basic voice types, Agent Voice and Patient Voice, arise when the external argument-introducing head Voice assigns nominative pivot marking to the agent and to the theme, respectively. In Section 3, I introduce novel data on external possession in Tagalog, showing that external possessors are restricted to themes of transitive change of state predicates but need not be affected. In Section 4, I make the case that external possession in Tagalog involves movement of the possessor from a thematic low applicative to an athematic raising applicative position, spelled out by Locative Voice. The possessor is then assigned nominative Case by Voice. I show that the raising applicative analysis can easily be extended to provide a unified analysis of thematically distinct Locative Voice pivots. Section 5 provides evidence for Circumstantial Voice as a raising applicative in instrumental and causative constructions. Locative Voice and Circumstantial Voice are shown to be two morphological reflexes of the same raising applicative head. Section 6 concludes.

2 Tagalog voice morphology

Tagalog is standardly described as having four main voice distinctions, as shown in (4). As in other languages with Philippine-type voice alternations, Tagalog voice morphology tracks what is often referred to as the pivot argument (Dixon 1979; 1994; Schachter 1976; Foley & van Valin 1984; Klaiman 1991; Kroeger 1991; Nolasco 2005; a.o.), which is always marked with *ang* or nominative Case and interpreted as definite/specific. As a result, each clause in (4) is semantically transitive but each receives a different voice marker. Agent Voice marking, for example, appears on the verb when the pivot is the agent of the clause (4a), while the Patient Voice construction is used when the pivot is a theme or patient (4b). The Locative Voice suffix *-an* appears with location, source or goal pivots (4c). In the Circumstantial Voice construction, the pivot may express a range of thematic roles, including beneficiary and instrument (4d). Non-pivot core arguments of the verb are marked with *ng* (pronounced /naŋ/) or genitive Case and are usually interpreted as non-specific. Non-core arguments receive *sa* or oblique Case marking and may co-occur with an overt preposition.

- (4) a. **Nag-sulat** [ang babae] [ng liham] [para sa bata].
AV.PFV.PAG-write NOM woman GEN letter for OBL child
 ‘The woman wrote a letter for the child.’ Agent Voice
- b. **S<in>ulat-Ø** [ng babae] [ang liham] [para sa bata].
 <PFV>write-**PV** GEN woman NOM letter for OBL child
 ‘The woman wrote the letter for the child.’ Patient Voice
- c. **S<in>ulat-an** [ng babae] [ng liham] [ang bata].
 <PFV>write-**LV** GEN woman GEN letter NOM child
 ‘The woman wrote the child a letter.’ Locative Voice
- d. **I-s<in>ulat** [ng babae] [ng liham] [ang bata].
CV-<PFV>write GEN woman GEN letter NOM child
 ‘The woman wrote a letter for the child.’ Circumstantial Voice

Aldridge (2004; 2012) reduces the four-way descriptive voice system in Tagalog to two basic clause types: Agent Voice reflects an antipassive clause and Patient Voice reflects a transitive clause, while the Locative and Circumstantial Voice affixes spell out low and high applicative heads, respectively, built on a transitive (Patient Voice) clause.¹ I show that while Aldridge’s characterisation is essentially correct, Agent Voice and Patient Voice are not two distinct lexical Voice heads (antipassive and transitive, respectively) but variants of the same active Voice head, whose spell-out depends on how many bundles of φ -features it bears.

I assume that external arguments are introduced by the functional head Voice (Kratzer 1996) which merges above a verb v , which consists of a verb-categorising head that merges with a lexical root and takes the theme as its complement (Marantz 1997); it is standardly assumed within Distributed Morphology (Halle & Marantz 1993) that lexical roots are acategorial and must adjoin to a categorising head in order to receive a syntactic category (Harley & Noyer 1999; Harley 2014). The v head also introduces an event variable and determines the kind of eventuality denoted by the resulting predicate (Harley 1995). This system therefore employs two functional heads, Voice and v , in addition to the lexical root (Marantz 1997; McGinnis 2001; Cuervo 2003; Pytkänen 2008; Harley 2013; 2017), rather than a simple functional little v and lexical V distinction (Hale & Keyser 1993; Chomsky 1995). Non-core arguments are introduced by applicative heads Appl merged below Voice (McGinnis 2001; Cuervo 2003; Pytkänen 2008).

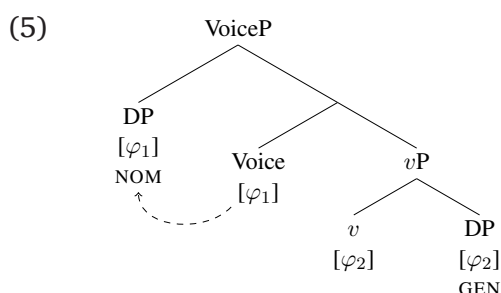
¹ More precisely, the Agent Voice is taken to be both an antipassive and intransitive marker in Aldridge (2004; 2012) because the prefix *nag-* and infix *<um>* are considered allomorphs of Agent Voice in the perfective. However, the two forms reflect argument structural differences. *<um>* can appear in both intransitive and transitive clauses, while *nag-* is generally restricted to transitive and reflexive clauses. For example, the root *bagsak* ‘fall’ is intransitive in its *<um>* form but transitive in its *nag-* form (i). The term “Agent Voice” for the *<um>* infix is thus a misnomer, as *<um>* can occur with typically unaccusative predicates.

- (i) Rackowski (2002: 72)
- a. **B<um>agsak** [ang plorera].
 <**AV.PFV**>fall NOM vase
 ‘The vase fell.’
- b. **Nag-bagsak** [ng plorera] [ang bata].
AV.PFV.PAG-fall GEN vase NOM child
 ‘The child slammed down a vase.’

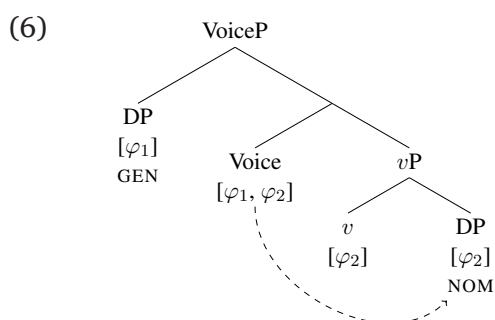
Because Patient Voice forms are also obligatorily transitive, I only analyse the antipassive-like *nag-* (and other aspectual variants of *pag-*) Agent Voice forms and for the most part set aside the *<um>* forms in this paper. However, *<um>* forms could be accommodated by adopting the assumption that Voice heads can be underspecified as to whether they require a specifier, thus allowing both transitive and intransitive interpretations (Wood 2015; Kastner 2018).

I assume that nominals bear uninterpretable φ -features that must be checked in the syntax via φ -agreement with a nominal licensing head, one of Voice, Appl and v (Chomsky 2000; 2001). Nominal licensing must occur in a local relation, either a specifier-head or head-complement relation, and the uninterpretable φ -features on the nominal licenser are valued as a consequence of licensing. Nominals also bear an abstract Case feature that must be valued by a Case-assigning head. However, nominal licensing is a prerequisite for Case assignment. Thus Case assignment either co-occurs with licensing in the same agreement operation, or Case is assigned to a nominal that has already been licensed by another head. Voice and v may optionally assign inherent genitive Case to the nominals they license (Aldridge 2004; 2012), but Appl does not assign Case; I return to Appl later in this section. Voice additionally assigns structural nominative Case (pivot marking) to the highest nominal that has been licensed but has not yet been assigned Case. Voice can thus assign nominative to either its external argument or the highest Case-less DP in its c-command domain. Prepositions represent another kind of nominal licenser and assign oblique Case.

In sum, all nominals must undergo both nominal licensing and Case assignment. The basic system is illustrated in (5) and (6). In (5), v licenses its DP complement via φ -agreement (thereby valuing the uninterpretable φ -features on v) and assigns it inherent genitive Case. Voice likewise licenses its DP specifier; because its specifier is the highest Case-less DP in the derivation, Voice also assigns it structural nominative Case, indicated by the dashed line. The agent therefore ends up as the pivot of the clause.



In (6), v licenses its complement via φ -agreement but does not assign it Case. This makes the theme the highest Case-less argument in the clause; Voice therefore assigns the theme nominative Case, marking it as pivot. I assume that Voice has its φ -features valued as a consequence of its interaction with the theme. Voice then licenses its specifier and assigns it inherent genitive Case, gaining a second set of φ -features.



Voice has the dual role of licensing and assigning Case to an external argument and determining the nominative pivot of the clause. A consequence of this is that Voice (and only Voice) can bear the φ -feature bundles of two different arguments. In (6), where the

internal argument is pivot, Voice has the ϕ -features of both the internal and external arguments.²

Pivots are privileged arguments in their syntax and interpretation. Most clauses have exactly one pivot, which is interpreted as definite/specific. Pivots can also undergo A'-extraction, while non-pivot arguments generally cannot (Bell 1976; Keenan & Comrie 1977; Kroeger 1991; Paul 2000; 2002; Aldridge 2004; 2016; Rackowski & Richards 2005). This has prompted some scholars to liken the behaviour of the pivot in Philippine languages to object shift in Germanic (Richards 2000; Rackowski 2002; Rackowski & Richards 2005; Sabbagh 2016), where the pivot obligatorily moves to the outer edge of VoiceP and becomes the highest argument visible to C for overt or covert extraction. Common to both the object shift approach and the proposal sketched here is that it is essentially Voice which determines which argument is the pivot (see also Aldridge 2004; 2012; Jeoung 2018). In my approach, the pivot is identified by virtue of having undergone nominative Case assignment by Voice. The ability to determine the pivot may be a lexical property of Voice or a property derived from agreement between Voice (the highest head in the thematic domain) and finite T (see Legate 2005). Regardless of where the features of pivothood originate, however, I assume that the pivot, once identified by nominative Case assignment by Voice, is then visible to C/T for additional syntactic operations, such as focus or *wh*-extraction. I remain agnostic as to whether the pivot undergoes intermediate movements of the object shift type.³

The major voice forms in Tagalog may now be derived. The four voices for *sulat* 'write' are given in their perfective and infinitive forms in (7). The infix <in> marks the perfective across all voices except the Agent Voice. Agent Voice forms surface with an allomorph of the prefix *pag-*, which is conditioned by aspect.⁴

(7) Some voice/aspect forms of *sulat* 'write'

	Perfective	Infinitive
Agent Voice	nag-sulat	mag-sulat
Patient Voice	s <in> ulat- \emptyset	sulat-in
Locative Voice	s <in> ulat-an	sulat-an
Circumstantial Voice	i-s <in> ulat	i-sulat

² An anonymous reviewer wonders whether it is a language-specific property of Voice in Tagalog that it is able to license and assign Case to arguments in different structural positions. Voice in ergative languages arguably also behaves this way, assigning absolutive Case to the theme as well as ergative Case to the agent. The dual licensing property of Voice, then, is not idiosyncractic to Tagalog but applies other languages. Furthermore, it has been proposed in the literature on symmetric double object constructions in Bantu that Appl may assign Case to the theme or to its external argument, deriving extraction symmetries between the theme and applied argument (McGinnis 2001). Thus the ability to license and assign Case in different structural configurations may be a general property of external argument-introducing heads.

³ Tagalog exhibits a kind of differential object marking (DOM) in Agent Voice extraction contexts in which direct object pronouns and proper names can appear but must be marked with oblique case (Sabbagh 2016). It has been proposed that specific and DOM nominals in Tagalog undergo object shift to the outer edge of VoiceP, while non-specific nominals remain in situ (Rackowski 2002; Rackowski & Richards 2005; Sabbagh 2016). Evidence against such movement comes from the coordination of DOM and non-DOM nominals, as in (i). Movement of the specific conjunct but not the non-specific conjunct would violate the Coordinate Structure Constraint; see Kalin and Weisser (2019) for discussion of such asymmetric coordination in other languages. If specific nominals indeed obligatorily undergo object shift, then such coordination would be expected to be impossible.

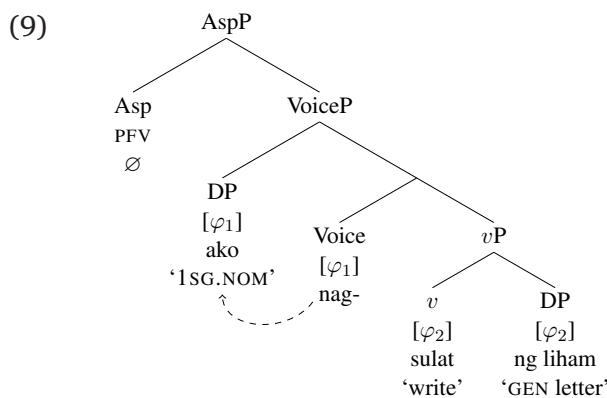
(i) Sino ang naka-kita sa/*ng akin at ng isa=ng aso?
 who.NOM FOC AV.NONVOL-see OBL/GEN 1SG.OBL and GEN one=LK dog
 'Who saw me and a (non-specific) dog?'

⁴ Wolff (1973) argues that the perfective Agent Voice prefix *nag-* derived historically from a reduced form of *p<in>ag-* (<in> infixed to *pag-*). Similarly, the infinitive Agent Voice prefix *mag-* derived from a reduced form of *p<um>ag-* (<um> infixed to *pag-*). However, this does not seem to be an active synchronic process of reduction, as the Locative Voice and/or Circumstantial Voice forms of some roots, such as *luto* 'cook', preserve the *p<in>ag-* sequence, e.g. Locative Voice *p<in>ag-lutu-an* and Circumstantial Voice *i-p<in>ag-luto*.

Following Rackowski (2002), I propose that *pag-* and its allomorphs spell out the Voice head, subject to morphosyntactic conditioning by an aspectual projection Asp above VoiceP.⁵ The infix <*in*> spells out Asp in the perfective, under certain conditions to be made explicit. The Locative Voice suffix *-an* and Circumstantial Voice prefix *i-* are associated with Appl (Rackowski 2002; Aldridge 2004; 2012; Chang 2015).

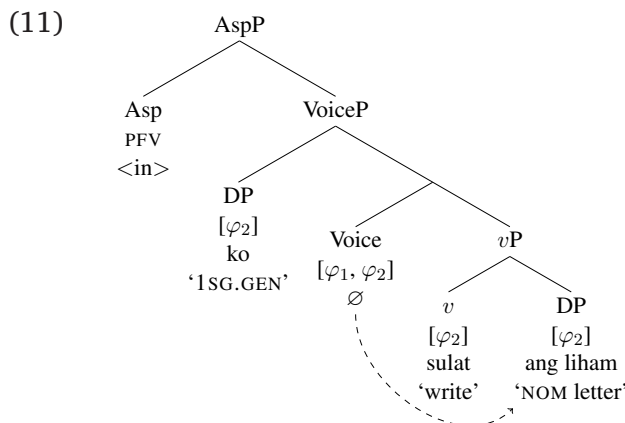
A syntactic derivation for the Agent Voice construction in (8) is sketched in (9). The internal argument is licensed and assigned genitive Case by *v*. Voice licenses the external argument and assigns it nominative Case, marking it as the pivot of the clause. The derivation proceeds with Voice and *v* bearing one bundle of valued φ -features each.

- (8) Nag-sulat [ako] [ng liham].
 AV.PFV.PAG-write 1SG.NOM GEN letter
 ‘I wrote a letter.’ Agent Voice



The derivation for the corresponding Patient Voice construction in (10) is given in (11). Here *v* licenses the theme but does not assign it genitive Case. The theme is therefore assigned structural nominative Case by Voice, which marks it as the pivot of the clause. Voice then licenses and assigns genitive Case to its specifier, ending up with two bundles of valued φ -features.

- (10) S<*in*>ulat- \emptyset [ko] [ang liham].
 <PFV>write-PV 1SG.GEN NOM letter
 ‘I wrote the letter.’ Patient Voice



⁵ Travis (2000) takes *pag-* to be a lexical causative marker. According to several recent approaches to causative morphology, lexical causative marking is Voice marking (Alexiadou et al. 2006; 2015; Schäfer 2008; Kastner 2018).

In the proposed approach, the source of the morphological alternation between Agent Voice and Patient Voice constructions is the number of φ -feature bundles borne by the Voice head. In the Agent Voice, the external argument is the only nominal that Voice agrees with, giving the appearance of being antipassive (Aldridge 2004; 2012). In Patient Voice constructions, by contrast, Voice also undergoes φ -agreement with a nominal in its c-command domain, thereby ending up with two bundles of φ -features; this will be shown to be true of the other non-Agent Voices as well. Recall from (7) that the infix $\langle in \rangle$ marks perfective aspect across all voices except the Agent Voice, while the Agent Voice forms involve an allomorph of the prefix *pag-* (*nag-* in the perfective, *mag-* in the infinitive). The distribution of these Voice and aspect markers can be understood as simple cases of contextual allomorphy. The perfective aspectual head is spelled out as $\langle in \rangle$ in the local context of Voice with two valued φ -feature bundles, as in the Patient Voice (12a). Perfective Asp is spelled out as zero elsewhere, as in the Agent Voice (12b).

- (12) a. Asp[PFV] $\leftrightarrow \langle in \rangle / _ \text{Voice}[\varphi_1, \varphi_2]$
 b. Asp[PFV] $\leftrightarrow \emptyset$

In the perfective, Voice is realised as *nag-* when it has one bundle of φ -features, as in the Agent Voice (13a), and is phonologically zero when it has two, as in Patient Voice (13b).⁶

- (13) a. Voice $[\varphi_1]$ $\leftrightarrow \text{nag-} / \text{Asp[PFV]} _ _$
 b. Voice $[\varphi_1, \varphi_2]$ $\leftrightarrow \emptyset / \text{Asp[PFV]} _ _$

In Deal (2010), the context of insertion for the ergative case marker in Nez Perce similarly references two φ -feature bundles.

The other two major voice types, the Locative Voice and Circumstantial Voice, involve essentially the same ingredients as Patient Voice, but with the addition of Appl, which licenses its specifier but does not bear a Case feature. The applied argument cannot receive Case from Appl and must therefore be assigned structural nominative Case by Voice instead. This derives the fact that applied arguments are always nominative in Tagalog.

The Circumstantial Voice prefix *i-* is typically associated with benefactive and instrument pivots and can combine with unergative predicates, as shown in (14). Based on diagnostics from Pytkänen (2008), these properties indicate that the Circumstantial Voice involves a high applicative (Rackowski 2002; Aldridge 2004).

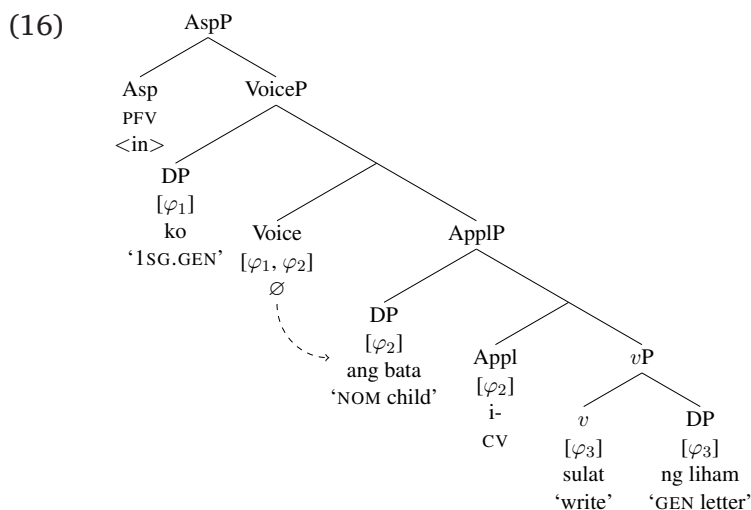
- (14) a. I-t $\langle in \rangle$ akbo [ng bata] [ang kaibigan niya].
 CV- \langle PFV \rangle run GEN child NOM friend 3SG.GEN
 ‘The child ran for her friend.’ Benefactive
- b. I-p $\langle in \rangle$ am-punas [ko] [ang trapo].
 CV- \langle PFV \rangle INSTR-wipe 1SG.GEN NOM rag
 ‘I wiped with the rag.’ Instrument

The derivation for (15), based on a high applicative analysis of Circumstantial Voice, is given in (16). ν licenses the theme and assigns it genitive Case. While Appl licenses the applied argument in its specifier, it has no Case to assign. Voice therefore assigns structural nominative Case to the applied argument, which becomes the pivot of the clause.

⁶ While for *sulat* ‘write’ it appears that only one of Voice or Aspect is spelled out overtly in a given derivation, there are other verbs for which both heads receive overt realisations. One such example is *luto* ‘cook’, for which the Voice head is spelled out as *pag-* in some non-Agent Voice forms, i.e. when Voice has two bundles of φ -features.

Voice then licenses and assigns genitive Case to its specifier, ending up with two bundles of φ -features.

- (15) I-s <in> ulat [ko] [ng liham] [ang bata].
 CV- <PFV> write 1SG.GEN GEN letter NOM child
 ‘I wrote a letter for the child.’ Circumstantial Voice



In Section 5, I argue that Circumstantial Voice is better analysed as a raising applicative construction, where the applied argument moves to the Appl head shown in (16) from a lower position. Common to both the high applicative and raising applicative approaches, however, is that Voice assigns nominative Case to the applied argument in an ECM-like configuration, marking it as the pivot. Voice bears two valued φ -feature bundles through agreement with two nominals, which ensures insertion of the correct Vocabulary Items, given in (12a) and (13b) for the perfective.

The Locative Voice suffix *-an* has several uses; representative examples are given in (17). The Locative Voice pivot in (17a) denotes a location, much like a prepositional phrase. Locative Voice is also frequently used to indicate transfer of possession in double object constructions, in which the recipient is the pivot (17b). A third use of Locative Voice is to convey a benefactive pivot, which also implies (although does not entail) transfer of possession (17c).

- (17) a. B <in> ilh-an [ng babae] [ng libro] [ang tindahan].
 <PFV> buy-LV GEN woman GEN book NOM store
 ‘The woman bought a book at the store.’ Locative
- b. B <in> igy-an [ng babae] [ng libro] [ang bata].
 <PFV> give-LV GEN woman GEN book NOM child
 ‘The woman gave the child a book.’ Goal
- c. B <in> ilh-an [ng babae] [ng libro] [ang bata].
 <PFV> buy-LV GEN woman GEN book NOM child
 ‘The woman bought the child a book.’ Benefactive

Locative Voice has been analysed as a thematic low applicative construction (Rackowski 2002; Aldridge 2004). However, it has been pointed out that intransitive predicates are compatible with Locative Voice (Chang 2015; Kaufman 2017); this is unexpected if the Locative Voice suffix spells out a low applicative head (Pylkkänen 2008). I leave a full

analysis of Locative Voice constructions to Section 4, where I show that a raising applicative analysis of Locative Voice is able to capture this behaviour. It is nonetheless sufficient here to suggest that in the Locative Voice constructions, like its Patient Voice and Circumstantial Voice counterparts, the Voice head promotes to pivot an argument in its c-command domain and bears two valued φ -feature bundles, one from its specifier and one from the pivot.

In this section, I showed that the Tagalog voice system can be understood as the interaction between the case assignment properties of external argument-introducing heads and φ -agreement. In particular, Voice marks as nominative pivot the highest licensed but not yet Case-assigned argument: this can be the agent, theme or an applied argument. The rest of the paper is devoted to understanding the behaviour of applied arguments in Tagalog.

3 External possession

This section provides the empirical basis for Section 4, where I argue for an applicative analysis of external possession in Tagalog. After providing a brief description of internal possession (Section 3.1), I introduce the basic syntactic and discourse properties of external possession in Tagalog (Section 3.2). In Section 3.3, I present the argument structure restrictions on external possession, showing that it is limited to themes of externally-caused change of state verbs. This theme restriction on external possession is found in closely related Cebuano (Bell 1976; 1983) but is absent in other Austronesian languages, such as Malagasy (Keenan 1972; Keenan & Ralalaoherivony 2001), Chamorro (Chung 2008) and Indonesian (Davies 2008; Jeoung 2018). The data presented in this section comes from elicitation work with four native speaker consultants.

3.1 Internal possession

In simple nominal possession, a genitive possessor modifies a nominative-marked possessum (18). This case marking reflects the status of the entire possessed DP as a pivot. As demonstrated in (19), the genitive possessive structure may recurse.⁷ Possession of a genitive-marked possessum requires a more complex expression, however, involving a quantifier (20); this quantifier strategy still requires the possessor to be genitive.

(18) ang/*ng libro ng bata
NOM/GEN book GEN child
'the/*a child's book'

(19) ang/*ng libro ng kaibigan ng kapatid ko
NOM/GEN book GEN friend GEN sibling 1SG.GEN
'my sibling's friend's book'

(20) ng isa = ng libro ng bata
GEN one = LNK book GEN child
'one of the child's books'

A typical example of DP-internal possession in a clausal context is given in (21). The possessed theme in (21) is marked nominative and serves as the pivot of the clause, which is reflected by Patient Voice morphology on the verb. The possessor can be complex, as shown in (22). The possessor and possessum behave as a single constituent; the possessor

⁷ I assume that the impossibility of the genitive possessum in (19) has to do with specificity, where possessed DPs are preferentially specific and therefore nominative, although see Sabbagh (2016) for some attested examples of genitive possessed DPs.

can be neither focus-clefted (23) nor questioned (24) to the exclusion of the possessum; either movement would constitute a subextraction violation.

- (21) G<in>upit- \emptyset [ko] [ang buhok ng bata] kahapon.
 <PFV>snip-PV 1SG.GEN NOM hair GEN child yesterday
 ‘I cut the child’s hair yesterday.’ Internal poss.
- (22) G<in>upit- \emptyset [ko] [ang buhok ng kaibigan ng bata].
 <PFV>snip-PV 1SG.GEN NOM hair GEN friend GEN child
 ‘I cut the child’s friend’s hair.’
- (23) *[Ng/ang bata] ang g<in>upit- \emptyset ko [ang buhok _].
 GEN/NOM child FOC <PFV>snip-PV 1SG.GEN NOM hair
 Intended: ‘It was the child whose hair I cut.’
- (24) *[Sino] ang g<in>upit- \emptyset mo [ang buhok _]?
 who.NOM FOC <PFV>snip-PV 2SG.GEN NOM hair
 Intended: ‘Whose hair did you cut?’

3.2 Basic properties of external possession

In external possession, by contrast, it is the possessor itself that is the nominative pivot, one that must co-occur with a Locative Voice-marked verb, as shown in (25). The possessum is interpreted as the theme of the verb but is marked genitive and cannot be further modified by a DP-internal genitive possessor. Like internal possessors, an external possessor can be complex, as shown in (26). Unlike its internal counterpart, the external possessor can be separated from its possessum by a temporal adverb (25) and extracted independently of the possessum under focus (27) or a question (28). Thus the external possessor behaves like a regular Locative Voice pivot.

- (25) G<in>upit-an [ko] [ng buhok (*niya)] kahapon [ang bata].
 <PFV>snip-LV 1SG.GEN GEN hair 3SG.GEN yesterday NOM child
 ‘I cut the child’s hair yesterday.’ External poss.
- (26) G<in>upit-an [ko] [ng buhok] [ang kaibigan ng bata].
 <PFV>snip-LV 1SG.GEN GEN hair NOM friend GEN child
 ‘I cut the child’s friend’s hair.’
- (27) [Ang bata] ang g<in>upit-an ko [ng buhok] ____.
 NOM child FOC <PFV>snip-LV 1SG.GEN GEN hair
 ‘It was the child whose hair I cut.’
- (28) [Sino] ang g<in>upit-an mo [ng buhok] ____?
 who.NOM FOC <PFV>snip-LV 2SG.GEN GEN hair
 ‘Whose hair did you cut?’

Similar information structural facts hold in Hungarian (Szabolcsi 1984), Nez Perce (Deal 2013) and Russian (Harves to appear), in which external possessors can also act as foci or *wh*-operators.

Because of the difference in their choice of pivot, the internal and external possession strategies in Tagalog can result in a specificity distinction. The entire internally possessed theme in (29a), for example, is marked nominative, which gives rise to an indefinite specific interpretation of the broken table leg (since tables typically have more than one leg).

In its external possession counterpart in (29b), it is one or more indefinite non-specific table legs that are broken.

- (29) a. P<in> utol- \emptyset [ko] [ang paa ng mesa].
 <PFV>cut.off-PV 1SG.GEN NOM leg GEN table
 ‘I broke a specific leg off the table.’ Internal poss.
- b. P<in> utul-an [ko] [ng paa] [ang mesa].
 <PFV>cut.off-LV 1SG.GEN GEN leg NOM table
 ‘I broke some leg(s) off the table.’ External poss.

The same contrast is found in the internal–external possession pair in (30). In fact, (30a) is compatible with a reading where the house only has one window.

- (30) a. B<in> asag- \emptyset [ko] [ang bintana ng bahay].
 <PFV>shatter-PV 1SG.GEN NOM window GEN house
 ‘I shattered {the, a specific} window of the house.’ Internal poss.
- b. B<in> asag-an [ko] [ng bintana] [ang bahay].
 <PFV>shatter-LV 1SG.GEN GEN window NOM house
 ‘I shattered some window(s) of the house.’ External poss.

Importantly, examples (29b) and (30b) also show that there is no animacy and therefore no affectedness requirement on the external possessor in Tagalog. In this respect, Tagalog differs from languages with dative external possessors such as French (Guéron 1985; Koenig 1999), Spanish (Kempchinsky 1992), German (Hole 2005; Lee-Schoenfeld 2006) and potentially Hebrew (Borer & Grodzinsky 1986), which have been claimed to require some kind of possessor affectedness. Instead, Tagalog patterns with languages like Tzotzil (Aissen 1979) and Nez Perce (Deal 2013) in their lack of an affectedness condition and lack of distinction among body part (25), part-whole (29b) and alienable possession (32a) relations between the possessor and possessum.

- (31) a. In-ubos- \emptyset [ko] [ang pera ng lolo ko].
 PFV-use.up-PV 1SG.GEN NOM money GEN grandfather 1SG.GEN
 ‘I used up my grandfather’s money.’ Internal poss.
- b. In-ubus-an [ko] [ng pera] [ang lolo ko].
 PFV-use.up-LV 1SG.GEN GEN money NOM grandfather 1SG.GEN
 ‘I used up my grandfather’s money.’ External poss.

I should point out that the relevant notion of “affectedness” here boils down to whether the external possessor receives an “affectee” thematic role in addition to its possessor role. It has been noted that the use of possessor datives in German, for example, is only felicitous when the animate possessor is living; this has been used as evidence that the possessor is assigned an additional affectee thematic role in the syntax (Hole 2005). It seems to also be true of Tagalog that animate external possessors must be living; compare (32b) with its internally-possessed counterpart (32a).

- (32) a. In-ubos- \emptyset [ko] [ang pera ng lolo ko = ng
 PFV-use.up-PV 1SG.GEN NOM money GEN grandfather 1SG.GEN = LNK
 patay].
 die
 ‘I used up my deceased grandfather’s money.’ Internal poss.

- b. *In-ubus-an [ko] [ng pera] [ang lolo ko = ng
 PFV-use.up-LV 1SG.GEN GEN money NOM grandfather 1SG.GEN = LNK
 patay].
 die
 Intended: ‘I used up my deceased grandfather’s money.’ *External poss.

However, this living requirement applies to all animate Locative Voice pivots, including goals, as in (33).

- (33) B<in>igy-an [ko] [ang lolo ko(* = ng patay)] [ng
 <PFV>give-LV 1SG.GEN NOM grandfather 1SG.GEN(=LNK die) GEN
 libro].
 book
 ‘I gave my (*deceased) grandfather a book.’

While the grandfather must be living in order for (33) to be felicitous, my consultants do not report that the grandfather is any sense affected beyond simply being the recipient of the book. I therefore conclude that neither goals nor external possessors are assigned an additional affectee thematic role in Tagalog.

3.3 Restrictions on external possession

As in many languages, external possession in Tagalog is limited to possessed themes of transitive verbs. Intransitive predicates are incompatible with external possession. The pivot of the Locative Voice form of the unergative verb *takbo* ‘run’ in (34b), for instance, cannot be interpreted as a possessor of the agent. Neither can unaccusative subjects launch an external possessor, as shown for the pivot of Locative Voice *bagsak* ‘fall’ in (35b).⁸

- (34) a. T<um>akbo [ang kaibigan ng bata].
 <AV.PFV>run NOM friend GEN child
 ‘The child’s friend ran.’ Internal poss.
- b. T<in>akbuh-an [ng kaibigan] [ang bata].
 <PFV>run-LV GEN friend NOM child
 Intended: ‘The child’s friend ran.’ *External poss.
- (35) a. B<um>agsak [ang puno ng bata].
 <AV.PFV>fall NOM tree GEN child
 ‘The child’s tree fell over.’ Internal poss.
- b. #Na-bagsak-an [ng puno] [ang bata].
 NONVOL-fall-LV GEN tree NOM child
 Intended: The child’s tree fell over. *External poss.

External possession is also incompatible with external arguments, such as transitive subjects, as shown in (36b). Benefactive pivots, which condition Circumstantial Voice on the verb (37a), likewise cannot launch external possessors (37b).

- (36) a. Nag-basag [ang kaibigan ng bata] [ng plorera].
 AV.PAG.PFV-shatter NOM friend GEN child GEN vase
 ‘The child’s friend broke a vase.’ Internal poss.

⁸ Most Locative Voice forms that are incompatible with external possession can nonetheless receive directional or locative interpretations, such as ‘The friend ran to the child’ for (34b) and ‘The tree fell onto the child’ for (35b); such forms with alternate interpretations are marked with #.

- b. #B<in> asag-**an** [ng kaibigan] [ang bata] [ng plorera].
 <PFV>shatter-LV GEN friend NOM child GEN vase
 Intended: ‘The child’s friend broke a vase.’ *External poss.
- (37) a. I-t<in> akbo [ko] [ang kaibigan ng bata].
 CV-<PFV>run 1SG.GEN NOM friend GEN child
 ‘I ran for the child’s friend.’ Internal poss.
- b. #T<in> akbuh-**an** [ko] [ng kaibigan] [ang bata].
 <PFV>run-LV 1SG.GEN GEN friend NOM child
 Intended: ‘I ran for the child’s friend.’ *External poss.

The object restriction on external possession in Tagalog, while also found in the closely related language Cebuano (Bell 1976; 1983), contrasts with most other Austronesian languages for which external possession has been described. External possession in Malagasy is limited to subjects (Keenan 1972; Keenan & Ralalaoherivony 2001), while Chamorro (Chung 2008), Indonesian (Davies 2010), Javanese (Sneddon 1996) and Madurese (Jeoung 2018) permit extraction of the possessor from both subjects and objects; see Jeoung (2018) for a detailed discussion of external possessor extraction in Indonesian, Javanese and Madurese.

Not all themes can launch an external possessor in Tagalog. As in French (Kayne 1975) and Swahili (Keach & Rochemont 1994), external possession in Tagalog is incompatible with stative roots, such as *gusto* ‘like’ (38). Stative verbs like *tingin* ‘look at’ which obligatorily appear in Locative Voice with an object pivot are also incompatible with external possession (39).

- (38) a. Gusto [ko] [ang buhok ng bata].
 like 1SG.GEN NOM hair GEN child
 ‘I like the child’s hair.’ Internal poss.
- b. *Gusto [ko] [ng buhok] [ang bata].
 like 1SG.GEN GEN hair NOM child
 Intended: ‘I like the child’s hair.’ *External poss.
- (39) a. T<in> ingn-**an** [ko] [ang buhok ng bata].
 <PFV>look.at-LV 1SG.GEN NOM hair GEN child
 ‘I looked at the child’s hair.’ Internal poss.
- b. *T<in> ingn-**an** [ko] [ng buhok] [ang bata].
 <PFV>look.at-LV 1SG.GEN GEN hair NOM child
 Intended: ‘I looked at the child’s hair.’ *External poss.

There are also many non-stative transitive verb roots that are incompatible with external possession, such as *kain* ‘eat’ (40b), *bili* ‘buy’ (41b) and *tunaw* ‘melt’ (42b).

- (40) a. K<in> ain-∅ [ni Luz] [ang mga mani ng bata].
 <PFV>eat-PV GEN.PN Luz NOM PL peanut GEN child
 ‘Luz ate the child’s peanuts.’ Internal poss.
- b. #K<in> ain-**an** [ni Luz] [ang bata] [ng mga mani].
 <PFV>eat-LV GEN.PN Luz NOM child GEN PL peanut
 Intended: ‘Luz ate the child’s peanuts.’ *External poss.
- (41) a. B<in> ili-∅ [ni Luz] [ang mga mani ng bata].
 <PFV>buy-PV GEN.PN Luz NOM PL peanut GEN child
 ‘Luz bought the child’s peanuts.’ Internal poss.

- b. #B<in>ilh-**an** [ni Luz] [ang bata] [ng mga mani].
 <PFV>buy-LV GEN.PN Luz NOM child GEN PL peanut
 Intended: 'Luz bought the child's peanuts.' *External poss.
- (42) a. T<in>unaw-∅ [ni Luz] [ang ice cream ng bata].
 <PFV>melt-PV GEN.PN Luz NOM ice cream GEN child
 'Luz melted the child's ice cream.' Internal poss.
- b. #T<in>unaw-**an** [ni Luz] [ng ice cream] [ang bata].
 <PFV>melt-LV GEN.PN Luz GEN ice cream NOM child
 Intended: 'Luz melted the child's ice cream.' *External poss.

Finally, ditransitive roots in Tagalog such as *bigay* 'give' are incompatible with external possession. Themes of ditransitives, which condition the appearance of Circumstantial Voice on the verb when made the pivot (43a), cannot launch an external possessor (43b). A goal pivot of a ditransitive, which independently conditions Locative Voice on the verb (44a), is similarly incompatible with external possession (44b).

- (43) a. I-b<in>igay [ko] [ang libro ng bata] [kay Kiko].
 CV-<PFV>give 1SG.GEN NOM book GEN child OBL.PN Kiko
 'I gave Kiko the child's book.' Internal poss.
- b. *B<in>igy-**an** [ko] [ng libro] [ang bata] [kay Kiko].
 <PFV>give-LV 1SG.GEN GEN book NOM child OBL.PN Kiko
 Intended: 'I gave Kiko the child's book.' *External poss.
- (44) a. B<in>igy-**an** [ko] [ng libro] [ang kaibigan ng bata].
 <PFV>give-LV 1SG.GEN GEN book NOM friend GEN child
 'I gave the child's friend a book.' Internal poss.
- b. *B<in>igy-**an** [ko] [ng libro] [ng kaibigan] [ang bata].
 <PFV>give-LV 1SG.GEN GEN book GEN friend NOM child
 Intended: 'I gave the child's friend a book.' *External poss.

Applicatives therefore cannot feed possessor raising in Tagalog. In Nez Perce, by contrast, external possessors of ditransitive themes are banned (45b) but goals may be externally possessed (45a) (Deal 2013).

- (45) *Nez Perce* (Deal 2013: 403)
 'aayat-om hikwyek-ey'-se-∅ 'iin-e picpic cuu'yem
 woman-ERG 3SUBJ-feed-APPL-IMPV-PRES 1SG-OBJ cat.NOM fish.NOM
- a. 'The woman fed *my* cat the fish.'
 b. *'The woman fed a/the cat *my* fish.'

Thus ditransitive goals can feed external possession in Nez Perce but not in Tagalog (44).

More examples of monotransitive roots and their compatibility with external possession are listed in (46) and (47).

- (46) Examples of roots compatible with external possession
 $\sqrt{\text{ayos}}$ 'arrange', $\sqrt{\text{bali}}$ 'bend/break', $\sqrt{\text{basag}}$ 'shatter', $\sqrt{\text{gupit}}$ 'snip',
 $\sqrt{\text{kulot}}$ 'curl', $\sqrt{\text{putol}}$ 'cut off', $\sqrt{\text{ubos}}$ 'use up'

(47) Examples of roots incompatible with external possession

$\sqrt{\text{basa}}$ ‘read’, $\sqrt{\text{bili}}$ ‘buy’, $\sqrt{\text{kain}}$ ‘eat’, $\sqrt{\text{luto}}$ ‘cook’, $\sqrt{\text{may}}$ ‘have’, $\sqrt{\text{sara}}$ ‘close’,
 $\sqrt{\text{sipa}}$ ‘kick’, $\sqrt{\text{tunaw}}$ ‘melt’

The generalisation emerges that external possession is only possible with roots whose transitive forms are *causative*, expressing a change of state of the theme. External possession must therefore be built on a change of state predicate. The change of state must furthermore be externally caused (Cruse 1972; Levin & Rappaport Hovav 1994).⁹ This requirement on externally-caused change of state verbs in Tagalog echoes Landau’s (1999: 9) observation that possessor datives in Hebrew are only compatible with agentive transitive verbs “with some causative force.”

4 Raising applicative analysis

4.1 External possession

External possession has received two major kinds of approaches in the literature: possessor raising and control. Possessor raising analyses assume that external possession involves movement of a possessor argument to a non-thematic position (Keenan 1972; Aissen 1979; Szabolcsi 1984; Keach & Rochemont 1994; Ura 1996; Landau 1999; Deal 2013; a.o.). Control analyses may or may not posit movement of the possessor but crucially assume that it bears an “affectee” thematic role in addition to its possessor role (Guéron 1985; Kempchinsky 1992; Koenig 1999; Hole 2005; Lee-Schoenfeld 2006; a.o.). Thus the main diagnostic for control is an animacy and affectedness requirement. External possession in Tagalog is not subject to an affectedness condition, suggesting that it is a case of possessor raising as opposed to control.

Possessor raising analyses have generally assumed that the external possessor is base generated inside the possessed DP (Szabolcsi 1984; Keach & Rochemont 1994; Ura 1996; Landau 1999; Lee-Schoenfeld 2006; Deal 2013; a.o.). Szabolcsi (1984), for instance, shows that external possessors in Hungarian raise from a DP-internal position, leaving behind an agreement marker. There appear to be no restrictions on external possession in Hungarian; subjects as well as objects and stative as well as dynamic predicates, for example, can launch external possessors. External possession in Tagalog, on the other hand, is subject to argument structural restrictions on the verbal predicate. If the possessor originates in the possessed DP, then all predicates that are compatible with an internally-possessed theme DP should also be compatible with external possession. Unaccusative predicates in particular would be expected to allow external possessors. Yet, as demonstrated in Section 3.3, this is not borne out.¹⁰

⁹ While more research is needed on the precise characterisation of the roots permit external possession, one potential diagnostic for external vs internal causation in Tagalog is compatibility with the adverbial *nang mag-isa* ‘by itself, of its own accord’. It appears that *nang mag-isa* only combines with predicates that do not require external causation. As shown in (i), roots such as *tunaw* ‘melt’ which do not allow external possessors are compatible with *nang mag-isa*, while roots such as *gupit* ‘snip’ which do allow external possessors are incompatible with *nang mag-isa*. This suggests that roots like *gupit* obligatorily encode an external cause.

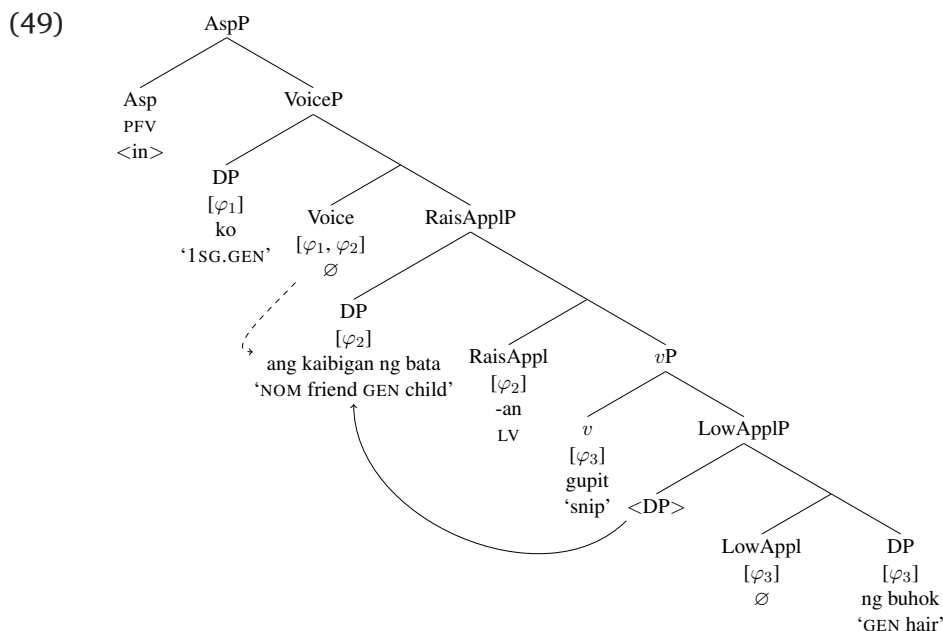
- (i) a. Na-tunaw [ang ice cream ng bata] nang mag-isa.
 NONVOL.PFV-melt NOM ice cream GEN child by.itself
 ‘The child’s ice cream melted of its own accord.’
 b. *Na-gupit [ang buhok ng bata] nang mag-isa.
 NONVOL.PFV-snip NOM hair GEN child by.itself
 Intended: ‘The child’s hair got cut of its own accord.’

¹⁰ Internal and external possession in complementary distribution would be another possible argument for an external possessor that raises from a DP-internal position (see Deal 2013). However, this is not the case in Tagalog either.

The fact that external possession is limited to a particular class of verbs in Tagalog suggests that the possessor is an argument of a verbal functional head. I argue that the possessor originates in the specifier of a low applicative (LowAppl) head, which establishes a possession relation between the possessor and theme (Cuervo 2003; Pylkkänen 2008) but does not license the possessor. Recall from Section 2 that only licensed nominals may be assigned Case. The possessor therefore moves to the specifier of a non-thematic raising applicative head (RaisAppl) for licensing (Georgala et al. 2008; Georgala 2012; Deal 2013). Once licensed, the possessor becomes eligible for structural nominative Case assignment by Voice and is promoted to pivot.

The proposed derivation for (48) is given in (49). LowAppl licenses its possessum complement via φ -agreement but does not assign it Case. LowAppl then introduces the possessor in its specifier but is unable to license it (perhaps because its φ -features have already been valued by its complement). When v merges with LowApplP, it probes into its complement, finds the licensed but not yet Case-assigned possessum and assigns it genitive Case.¹¹ The possessor cannot receive Case without first being licensed and must therefore move to a higher position for licensing. RaisAppl, which bears an EPP feature, attracts and licenses the possessor but does not assign it Case or an additional thematic role. The possessor must therefore receive nominative Case from Voice, which marks it as the pivot. Voice licenses and assigns genitive Case to its specifier and ends up with two bundles of φ -features, which condition the spell-out of <in> on the Aspect head (Section 2). The RaisAppl head is spelled out as the Locative Voice suffix *-an*.

- (48) G<in>upit-an [ko] [ng buhok] [ang kaibigan ng bata].
 <PFV>snip-LV 1SG.GEN GEN hair NOM friend GEN child
 ‘I cut the child’s friend’s hair.’



In the current proposal, the possessor is introduced by a (phonologically silent) thematic low applicative head. Syntactically, low applicatives have been shown to only be

¹¹ v assigns genitive to the possessum rather than the possessor because Case can only be assigned to nominals that have already been licensed. When v merges in the derivation, the possessum has been licensed by LowAppl, but the possessor remains unlicensed. Thus only the possessum is eligible for genitive Case from v .

compatible with dynamic transitive predicates (Cuervo 2003, Pylkkänen 2008), mirroring the argument structural requirements on external possession in Tagalog. Thus it is only those predicates that are compatible with low applicatives that will similarly allow external possession. Semantically, low applicatives relate two nominals via a predicative possession relation, commonly found in double object constructions where the low applicative phrase is interpreted as transfer of possession of the theme to the goal (Marantz 1993; McGinnis 1998; Cuervo 2003; Pylkkänen 2008). I propose that low applicatives are also able to establish a static possession relation in Tagalog. Thus in external possession constructions, the low applicative head assigns a possessor role directly to its specifier.¹²

The possessor originates as the specifier of a low applicative but must raise out of the LowAppIP. Evidence for this movement comes from the fact that adverbial modifiers can intervene between the possessor and possessum, as exemplified in (50). This is unexpected if the applied argument and theme form a minimal LowAppIP constituent (Georgala et al. 2008; Georgala 2012).¹³

- (50) G <in> upit-an [ko] [ng buhok] kahapon [ang bata].
 <PFV> snip-LV 1SG.GEN GEN hair yesterday NOM child
 'I cut the child's hair yesterday.'

The analysis of external possession presented in this section finds support in previous work on raising-type applicatives (Baker & Collins 2006; Georgala et al. 2008; Georgala 2012; Deal 2013; Massam 2015), especially in Deal (2013), where external possessors in Nez Perce similarly raise from its thematic position to RaisAppl in order to be accessible for Case assignment from Voice.

In sum, the external possessor in Tagalog raises from its thematic LowAppl position to the specifier of RaisAppl for licensing. This licensing makes the possessor eligible for nominative Case assignment by Voice. This approach accords with the observation made by Marantz (1984) that in languages with overt applicative morphology, non-core arguments behave syntactically like (definite) direct objects of the complex verb; they get structural Case from a higher head, control object agreement, are able to passivise, etc. (see also Baker 1988).¹⁴ The raising applicative analysis has two main advantages: (i) it offers an explanation for why applied arguments are obligatorily pivots, and (ii) it allows for a unified analysis of the wide range of thematic relations associated with the Locative Voice suffix in Tagalog, a point which I turn to next.

¹² Cuervo (2003) similarly argues that low applicatives can result in a static possession relation in Spanish. The thematic relation that the Tagalog low applicative assigns must be a possessor role and not a source role, as suggested by Pylkkänen (2008), since not all examples of external possession imply loss of possession:

(i) Schachter & Otnes (1972: 393)
 In-ayus-an [niya] [ng buhok] [si Tina].
 PFV-arrange-LV 3SG.GEN GEN hair NOM.PN Tina
 'She arranged Tina's hair.'

¹³ Tagalog has flexible postverbal word order. Evidence from linear order is therefore used cautiously, as a diagnostic for constituency but not necessarily hierarchical structure.

¹⁴ Because Voice licenses the applied argument, the theme must therefore be licensed by other means, namely by *v*, which assigns it genitive Case; this is consistent with the generalisation that the theme in applicative constructions receives inherent Case (Marantz 1984; Baker 1988).

4.2 Locative Voice

A puzzle posed by Locative Voice constructions in Tagalog is that Locative Voice pivots can express a number of different non-possessor thematic roles, including locative, goal and benefactive relations; examples of each are repeated in (51).

- (51) a. B<in>ilh-an [ng babae] [ng libro] [ang tindahan].
 <PFV>buy-LV GEN woman GEN book NOM store
 ‘The woman bought a book at the store.’ Locative
- b. B<in>igy-an [ng babae] [ng libro] [ang bata].
 <PFV>give-LV GEN woman GEN book NOM child
 ‘The woman gave the child a book.’ Goal
- c. B<in>ilh-an [ng babae] [ng libro] [ang bata].
 <PFV>buy-LV GEN woman GEN book NOM child
 ‘The woman bought the child a book.’ Benefactive

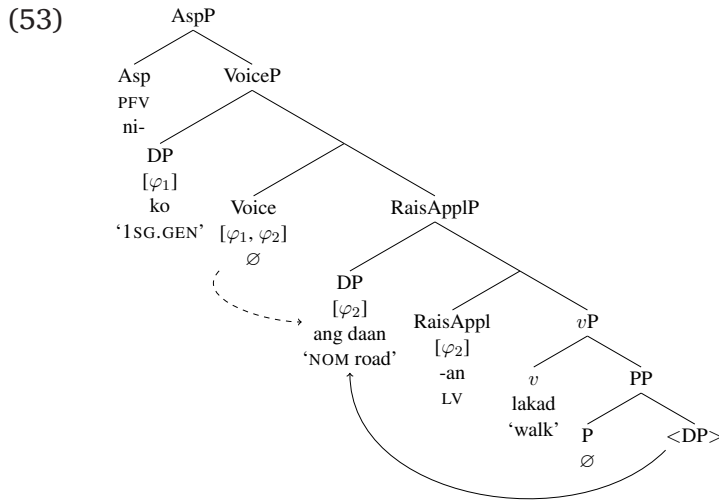
The raising applicative analysis offers a way to unify the various thematic relations associated with Locative Voice. The pivot arguments represented in (51) may be base generated in different thematic positions, but they all raise to the Locative Voice raising applicative head in order to be licensed. An alternative analysis in which there is no unified projection to which each pivot argument raises would require the Locative Voice suffix *-an* spell out several different functional heads.

Some previous proposals have identified the Locative Voice element with a low applicative head (Rackowski 2002; Aldridge 2004). Aldridge (2004; 2012) claims that applicatives can only appear with lexically transitive predicates in Tagalog. However, *-an* can attach to unergative verbs, which results in a locative or directional interpretation, as given in the examples in (52); aspectual marking usually associated with the infix <in> undergoes phonologically-conditioned allomorphy to prefixal *ni-* when attaching to a root with an initial lateral consonant.

- (52) Kaufman (2017: 599)
- a. Ni-lakar-an [ng bata] [ang daan].
 PFV-walk-LV GEN child NOM road
 ‘The child walked along the road.’
- b. S<in>igaw-an [ni Romeo] [si Jojo].
 <PFV>shout-LV GEN.PN Romeo NOM.PN Jojo
 ‘Romeo shouted at Jojo.’

It has been pointed out that the ability of unergatives to take *-an* is problematic for a uniform low applicative analysis of Locative Voice, as low applicatives by definition require the presence of a theme argument (Chang 2015; Kaufman 2017). Chang (2015) concludes that the Locative Voice must be a (thematic) high applicative construction.

Notice, however, that the raising applicative head is indeed syntactically high; it merges above *v*. I propose that the locative argument in an example like (52a) is base generated as the complement of a phonologically null locative preposition P (see also Rackowski 2002). I assume that this locative P cannot license or assign Case to its complement. The locative argument therefore moves to the specifier of RaisAppl where it is licensed and then receives nominative Case from Voice. This is shown in (53). As in external possession constructions, the RaisAppl head is spelled out as the Locative Voice suffix *-an*.



The preposition responsible for introducing locative pivots does not license or assign Case to its complement. The analysis echoes Baker’s (1988) preposition incorporation approach to applicatives, where applied arguments, including thematic complements of prepositions, are not assigned inherent Case from PP but structural Case from the equivalent of Voice.

Tagalog also has the more standard preposition which licenses its complement and assigns it oblique Case in locative PPs, exemplified in (54).

- (54) L <um>akad [ako] [sa daan].
 <AV.PFV> walk 1SG.NOM OBL road
 ‘I walked on the road.’

Notice that it is now the subject of the clause that is the pivot, tracked by Agent Voice on the verb.¹⁵ Because the locative argument gets Case from the preposition, it does not raise to RaisAppI or interact with Voice and therefore does not affect voice morphology on the verb.¹⁶

In sum, external possessors in Tagalog are best analysed as being introduced by a thematic low applicative but licensed by a higher, raising applicative and assigned nominative Case by Voice. The external possessor is marked as the nominative pivot because Voice is the only structural Case assigner in the language. The raising applicative approach to external possessors can furthermore be extended to provide a unified analysis of all Locative Voice constructions in Tagalog.

5 High and low raising applicative

While I adopt the term *raising applicative* from Georgala (2012), I make one significant modification to the original raising applicative proposals (Georgala et al. 2008; Georgala 2012). The original proposal advocates for a single applicative projection above vP that could either (i) both syntactically license an argument and assign it a thematic role or (ii) syntactically license an argument that already has a thematic role. Applying Pylkkänen’s (2008) dichotomy, Georgala and colleagues suggest that “high” applied arguments are those which are thematically introduced and licensed by the applicative head, while “low” applied arguments are generated in a thematic position below the verb and raise to

¹⁵ I abstract away from the particular form of Agent Voice in this example; see footnote 2.

¹⁶ Both goals and locatives can appear as oblique PPs in Tagalog. As an anonymous reviewer points out, external possessors cannot appear as an oblique PP. External possession requires a static possession relation between the possessor and theme. I assume that static possessors, unlike dynamic transfer-of-possession goals, cannot be generated within a PP.

the applicative position in order to be licensed by it. Thus low applicatives involve raising but high applicatives do not.

The spirit of the raising applicative proposal is to treat the thematic role assignment function of low applicatives as independent of their syntactic licensing function. I propose to take this approach one step further by arguing that high applicatives also involve raising. That is, just like low applied arguments (and complements of non-licensing prepositions), high applied arguments are also associated with two positions: a lower position for thematic role assignment and a higher position for syntactic licensing. This conclusion is supported by Massam (2015), who argues that instrumental applicatives in Niuean must move to a higher position for licensing. I furthermore demonstrate that this higher raising applicative position is in fact the same for both low and high applicatives in Tagalog. Deal (2013) makes a very similar suggestion for external possession and benefactive constructions in Nez Perce, which exhibit the same applicative marker on the verb. In this section, I argue that Circumstantial Voice, which has previously been diagnosed as a high applicative (Rackowski 2002; Aldridge 2004; 2012; Chang 2015), is in fact also a raising applicative in Tagalog. Two arguments are presented, one from instruments (Section 5.1) and another from causatives of transitives (Section 5.2).

5.1 Instruments

Recall that Circumstantial Voice pivots are typically associated with benefactive arguments and instruments. When the pivot is an instrument, as in (55b), the Circumstantial Voice prefix *i-* co-occurs with an instrumental prefix *paN-* (Rackowski 2002).¹⁷

- (55) a. I-t<in>akbo [ng bata] [ang kaibigan niya].
CV-<PFV>run GEN child NOM friend 3SG.GEN
'The child ran for her friend.' Benefactive
- b. I-p<in>am-punas [ko] [ang trapo].
CV-<PFV>INSTR-wipe 1SG.GEN NOM rag
'I wiped with the rag.' Instrument

Additional examples with transitive predicates are given in (56). These examples suggest that it is not the head associated with *i-* that introduces the instrument thematically, but the head associated with *paN-*. The Circumstantial Voice prefix is nonetheless obligatory when the instrument is the pivot, suggesting that Circumstantial Voice is needed for the purposes of syntactic licensing. Thus instrumental applicatives provide overt morphological evidence for the presence of both a thematic applicative (the instrumental marker) and raising applicative projection (Circumstantial Voice) in high applicative constructions.

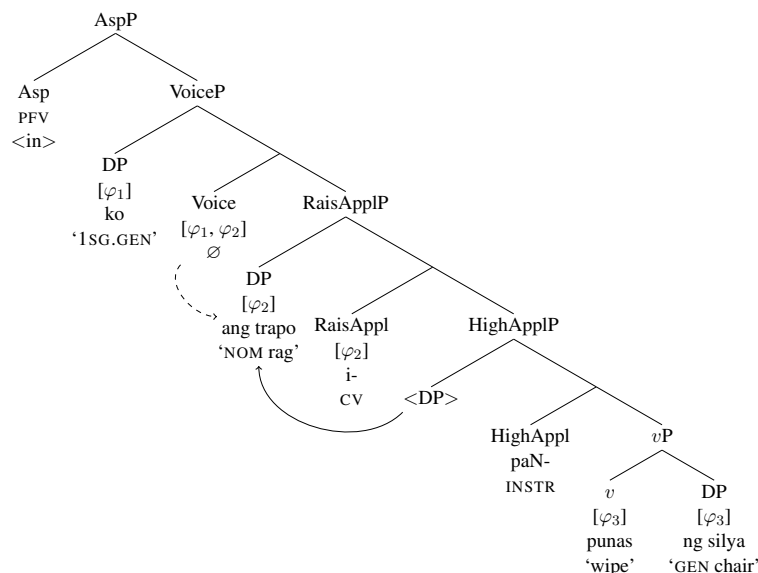
- (56) a. I-p<in>am-punas [ko] [ng silya] [ang trapo].
CV-<PFV>INSTR-wipe 1SG.GEN GEN chair NOM rag
'I wiped a chair using the rag.'
- b. I-p<in>ang-luto [ko] [ng adobo] [ang kaldero].
CV-<PFV>INSTR-cook 1SG.GEN GEN adobo NOM pot
'I cooked adobo using the pot.'

The proposed derivation for (56a) is given in (57). The theme is licensed and assigned genitive Case by *v*. The instrument argument is introduced and assigned its thematic role as the specifier of an instrumental applicative (HighAppl), which merges above *v*P and

¹⁷ The prefix *paN-* participates in the phonological process of nasal substitution, where the prefix-final nasal undergoes assimilation or fusion with the stem-initial obstruent (Zuraw 2000; 2010).

is spelled out as *paN-*. Like the thematic low applicative head (Section 4.1), HighAppl cannot license its specifier. The instrument therefore moves to the specifier of the raising applicative head, which licenses it via φ -agreement and is spelled out as Circumstantial Voice. RaisAppl cannot assign Case, however. Voice therefore assigns nominative Case to the instrument, marking it as the pivot. Voice licenses and assigns genitive Case to its specifier and ends up with two bundles of φ -features, which condition the spell-out of $\langle in \rangle$ on the Aspect head (Section 2).

(57)



Massam (2015) offers essentially the same raising applicative analysis for instrumental applicatives in Niuean. I assume that benefactive Circumstantial Voice constructions in Tagalog have the same derivation as the instrumental construction in (57) but employ a silent benefactive high applicative head.

The Locative Voice and Circumstantial Voice constructions therefore both involve a thematic projection and a raising applicative projection. I furthermore argue that the two constructions involve the *same* raising applicative projection. The Locative Voice and Circumstantial Voice affixes spell out the same raising applicative head, which is always directly merged under Voice head, which φ -agrees with the raised argument. This makes sense of the fact that Locative Voice and Circumstantial Voice are in complementary distribution in Tagalog and cannot co-occur; low and high applicatives have been noted to exist in complementary distribution cross-linguistically (Marantz 1993; McGinnis 1998; Georgala et al. 2008; Georgala 2012). The realisation of the raising applicative head as the Locative Voice or Circumstantial Voice affix depends on its syntactic context. When the raising applicative head is local to the verb, it is spelled out as the Locative Voice suffix *-an* (58a). When there are functional projections intervening between the raising applicative head and verb, the applicative is spelled out as the Circumstantial Voice prefix *i-* (58b)—the elsewhere case.

- (58) a. RaisAppl \leftrightarrow *-an* / $__ v$
 b. RaisAppl \leftrightarrow *i-*

5.2 Causatives of transitives

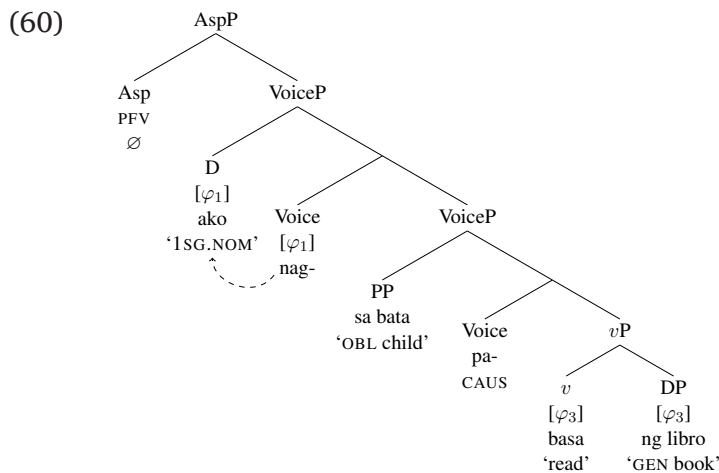
Further evidence of Circumstantial Voice as a raising applicative as well as the morpho-syntactic conditioning on the spell-out of the raising applicative comes from causatives of transitives. Causatives of transitives exhibit surprising voice morphology when the theme is the pivot; theme pivots condition Circumstantial Voice on the verb (Rackowski 2002;

Chen 2017), as shown in (59c). The Agent Voice (59a) and Patient Voice versions (59b) of the causative occur with causer and causee pivots, respectively.

- | | | | |
|------|----|---|--------|
| (59) | a. | Nag-pa-basa [ako] [sa bata] [ng libro].
AV.PFV.PAG-CAUS-read 1SG.NOM OBL child GEN book
'I made the child read a book.' | Causer |
| | b. | P<in>a-basa-∅ [ko] [ang bata] [ng libro].
<PFV> CAUS-read-PV 1SG.GEN NOM child GEN book
'I made the child read a book.' | Causee |
| | c. | I-p<in>a-basa [ko] [sa bata] [ang libro].
CV-<PFV> CAUS-read 1SG.GEN OBL child NOM book
'I made the child read the book.' | Theme |

If Circumstantial Voice is the spell-out of a thematic high applicative, there would be no explanation for its robust use in tracking the theme pivot in causatives of transitives. If, on the other hand, Circumstantial Voice is taken to be a raising applicative to which lower arguments may move, such an explanation is possible.

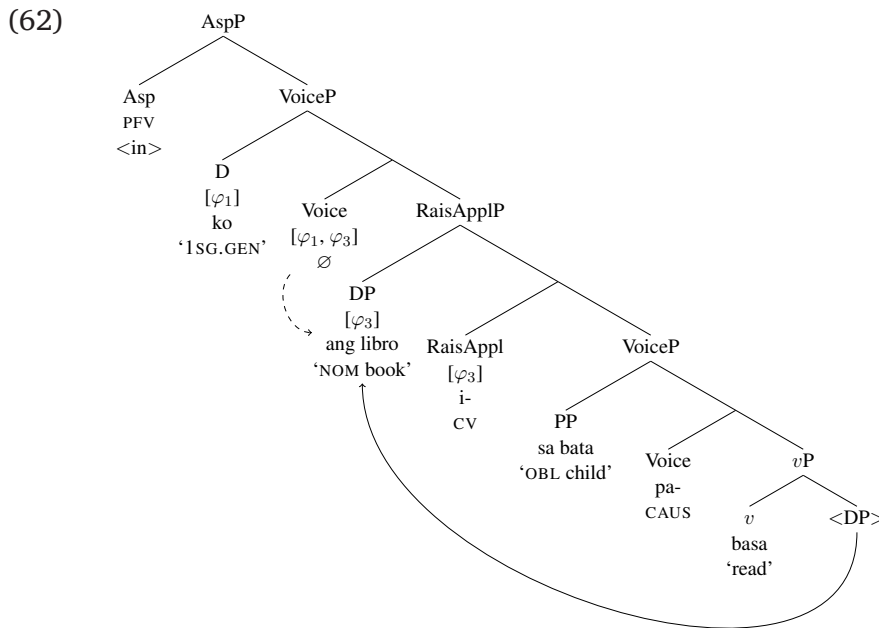
Following Nie (to appear), I assume that causatives in Tagalog involve an embedded Voice head that introduces the causee argument and is spelled out as the causative marker *pa-* (see Legate 2014 for a related proposal in Acehnese).¹⁸ This embedded Voice head is defective in that it cannot license its specifier. A higher Voice head introduces the causer and is responsible for assigning nominative Case. The derivation for the Agent Voice causative in (59a) is given in (60). The theme is licensed and assigned genitive Case by *v*. The embedded Voice head that introduces the causee does not license it; the causee is expressed as an oblique PP argument. Voice then licenses and assigns nominative pivot marking to its specifier, ending up with one bundle of φ -features and triggering Agent Voice morphology (Section 2).



In the Circumstantial Voice causative in (61), it is the theme that is the pivot. Because the theme pivot requires a form of RaisAppl, it must be assumed that the theme is not licensed in situ and must raise to RaisAppl for licensing. The proposed structure is given in (62). In this derivation, *v* neither licenses nor assigns Case to its complement. The theme therefore moves to the specifier of RaisAppl in order to be licensed and be eligible for Case assignment. Voice then merges and assigns the theme nominative Case, promoting it to pivot.

¹⁸ The identity of the head that introduces the causee is not crucial here. All that is necessary for the spell-out of the raising applicative as the Circumstantial Voice prefix *i-* is that there be a functional head intervening between the raising applicative head and the verb.

- (61) I-p <in> a-basa [ko] [sa bata] [ang libro].
 CV- <PFV> CAUS-read 1SG.GEN OBL child NOM book
 ‘I made the child read the book.’ Circumstantial Voice



RaisAppI may only attract DPs to its specifier, thereby enabling the theme DP to raise past the causee PP. Because the embedded Voice head intervenes between the raising applicative head and the verb, the applicative is spelled out as the Circumstantial Voice prefix *i-*, following the Vocabulary Item in (58b). The Locative Voice suffix *-an*, by contrast, is never used productively in causatives in Tagalog.¹⁹ This is accounted for by the locality condition on the spell-out of Locative Voice (58a). Since the embedded Voice in causatives will always intervene between the raising applicative and *v* in causatives, only Circumstantial Voice may be spelled out.

Thus Locative Voice and Circumstantial Voice reveal themselves to be two morphological reflexes of the same raising applicative head. This captures the insight that languages with overt applicative morphology generally have a single syntactic position for applicatives, and that low and high applicatives are in complementary distribution (Marantz 1993; McGinnis 1998; Georgala et al. 2008; Georgala 2012).

6 Conclusion

I have argued in this paper that the Tagalog Locative Voice and Circumstantial Voice constructions are best understood as applicative constructions involving an athematic raising applicative. External possessors and other nominals that remain unlicensed in their thematic position move to the specifier of the raising applicative in order to be licensed and eligible for nominative Case assignment by Voice. This proposal ties together several language-specific and cross-linguistic insights. It provides a unified analysis of the thematic DPs that can be encoded as Locative Voice and Circumstantial Voice pivots. The single, high position for the raising applicative also offers an explanation for why Locative Voice and Circumstantial Voice morphology are in complementary distribution but both voice types can combine with unergative predicates.

¹⁹ Locative Voice causatives are only found with a subset of verbs that are lexically specified to take Locative Voice themes, such as *laba* ‘wash, launder’.

My approach also provides further support for a derived applicative position (Baker & Collins 2006; Georgala et al. 2018; Georgala 2012; Deal 2013; Massam 2015), which captures the generalisation that in languages with overt applicative morphology, the applied argument behaves as the surface direct object of the complex verb in receiving structural Case, controlling object agreement, etc. (Marantz 1984; Baker 1988). This generalisation in turn echoes the insight from Relational Grammar that non-core arguments are subject to advancement rules that promote indirect objects (called 3s) and oblique arguments to the status of objects (called 2s); these derived objects may undergo further promotion to subjects (called 1s) (Johnson 1974; Kimenyi 1976; Perlmutter & Postal 1977; a.o.). Thus in Kinyarwanda, for example, high applicatives undergo 3 to 2 advancement, which feeds 2 to 1 advancement (Kimenyi 1976). Tagalog and other languages with Philippine-type voice systems exhibit another kind of advancement rule: non-core arguments must be promoted to the pivot subject and thus undergo advancement from 3 directly to 1 (Bell 1976; 1983). Importantly, advancement rules are subject to the 1-Advancement Exclusiveness Law, which states that only one argument can advance to 1 during the derivation of a clause (Perlmutter & Postal 1984). In other words, applied arguments that are promoted to 1 must remain 1s and cannot later be demoted via the application of, for example, a passive or antipassive rule. In Tagalog, the 1-Advancement Exclusiveness Law is seen in the fact that applied arguments must be nominative 1s and cannot surface with genitive Case as a demoted antipassive object (called *chômeurs*). The direct promotion of applied arguments to 1 and the Advancement Exclusiveness Law are both captured in the current proposal: applied arguments are not eligible to receive inherent genitive Case and must instead be assigned nominative Case by Voice, the only structural Case assigner in the language.

A final question that arises concerns how the properties of applicatives in languages without overt applicative marking on the verb, such as English and German, compare to those in languages with such overt marking. Applied arguments in German, for example, are generally marked dative and cannot undergo at least some types of passivisation (Haider 1985; a.o.), suggesting that they do not advance to object or subject status in the language. The potential positive correlation between overt applicative morphology and argument advancement is an intriguing possibility; this is left for future research.

Abbreviations

< > = infix, 1SG = 1st person singular pronoun, 3SG = 3rd person singular pronoun, 3SUBJ = 3rd person subject agreement, APPL = applicative, AV = Agent Voice, CAUS = causative, CV = Circumstantial Voice, ERG = ergative, FOC = focus marker, GEN = genitive, IMPF = imperfective, INSTR = instrumental applicative, LNK = linker, LV = Locative Voice, NOM = nominative, NONVOL = Non-volitional Voice, OBJ = objective, OBL = oblique, PAG = pag, PAST = past tense, PFV = perfective, PN = proper noun, PRES = present tense.

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Competing Interests

The author has no competing interests to declare.

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