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## Wh-agreement Across Three Domains in Indonesian

### Abstract

Cross-linguistically, morphological wh-agreement has been observed either on C/T or on verbs (Zaenen 1983; Reintges et al. 2006), coinciding with classic domains for successive-cyclic A' movement. This suggests that other phasal XPs may be also marked with morphological wh-agreement. The central claim of this paper is that in Indonesian, wh-agreement occurs in three domains: complementizers, verbs and nominals. Evidence for wh-agreement on C and wh-agreement on verbs comes from previously observed patterns in the literature, which I re-cast as wh-agreement. Next, by examining cases in which possessors undergo A' movement out of DP, I show that obligatory changes in morphology are an instantiation of wh-agreement within DP. This analysis contributes new patterns to the range of attested wh-agreement, and brings Indonesian morphosyntactic patterns under the umbrella of a wider cross-linguistic phenomenon.

# Wh-agreement Across Three Domains in Indonesian

Helen Jeoung\*

## 1 Introduction

Wh-agreement is broadly characterized as a pattern of morphological marking that is triggered by A' movement (or wh-movement in the sense of Chomsky 1977, 1995).<sup>1</sup> The phenomenon has been observed across a number of unrelated languages (Chung 1982, Zaenen 1983, Georgopoulos 1985, Tuller 1986, Chung and Georgopoulos 1988, Haik 1990, Watanabe 1996, Chung 1998, Reintges et al. 2006, among others). To my knowledge however, Indonesian (ISO: ind) has not previously been included in analyses of wh-agreement.

In this paper I examine morphological alternations that are triggered by A' extraction of nominals in Indonesian, and argue that the observed patterns are a type of wh-agreement. I present well-known alternations in complementizers and voice prefixes, as well as novel observations from possessor extraction, to demonstrate that the three sets of data display the properties of wh-agreement. The following examples illustrate A' movement of the question word *siapa*, resulting in three instances of wh-agreement in (2):

- (1) Adik mem-baca buku siapa?<sup>2</sup>  
sibling ACTV-read book who  
'Whose book is brother reading?'
- (2) Siapa yang adik Ø-baca buku-nya?  
who COMP.FOC sibling read book-DEF  
'Who is it that brother is reading (her) book?'

The possessor in (1) is the wh-phrase *siapa* 'who,' which is embedded in a possessive DP (Indonesian allows wh-in-situ questions, which have the same interrogative force as a matrix question). This wh-possessor may also be extracted to the left edge of the clause and appear in initial position, as in (2). This A' movement requires special morphology, that is, morphology that is not required in the wh-in-situ question. First, the possessum *buku* 'book' must be suffixed with *-nya*. Second, the verb *baca* 'read' may not occur with the suffix *meN-*. Third, the morpheme *yang* must occur between the extracted DP and the clause from which it was extracted. The central claim of this paper is that all three of these special forms are instantiations of morphological wh-agreement in Indonesian. This analysis contributes new patterns to the range of attested wh-agreement, and brings Indonesian morphosyntactic patterns under the umbrella of a wider cross-linguistic phenomenon.

### 1.1 Cross-linguistic Properties of Wh-agreement

Drawing from morphosyntactic patterns in several unrelated languages, a "profile" of wh-agreement is developed in Reintges, LeSourd and Chung 2006. I have re-summarized these properties and some of the ensuing discussion in (3).

- (3) Cross-linguistic properties of wh-agreement (Reintges, LeSourd and Chung 2006:166-7)

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<sup>1</sup>I refer to the relevant movement as A' movement throughout this paper, to avoid confusion with operations that only apply to wh-words and question formation.

<sup>2</sup>Abbreviations used in this paper follow Leipzig glossing conventions, except where data is cited from other sources (in which case original glosses are retained).

- A Wh-agreement is a reflex of A' movement, and may occur with constituent questions, focus constructions, relatives, etc.
- B Unlike other agreement phenomena, wh-agreement does not mark DP-internal features ( $\phi$ -features), even in languages that have rich agreement. However, wh-agreement may reflect case, grammatical function or the category of the moved argument.
- C Wh-agreement may be realized as lack of morphology, or special morphology. The special morphology may occur elsewhere in the language, but in wh-agreement the form only marks movement.
- D Morphological wh-agreement is marked on verbs and on C/T (or other functional head).
- E In long-distance movement, wh-agreement comes in two "flavors."
  - (i) Recursive wh-agreement: The special morphology occurs multiple times along the path of movement.
  - (ii) Nonrecursive wh-agreement: Only the highest position is marked with special morphology.

I refer to this list of properties, particularly (A-D), to demonstrate that Indonesian has wh-agreement. However, this paper also presents Indonesian data that challenge the generalizations in (D) and (E). Consequently, the analysis proposed here suggests refinements to this cross-linguistic profile in order to accommodate the patterns observed in Indonesian.

## 1.2 Wh-agreement in Other Languages

The particular instantiation of wh-agreement morphology varies across languages. For example, wh-agreement may occur only on complementizers in a particular language, or wh-agreement may occur on both C and verbs. In addition to marking A' movement, wh-agreement may reflect properties of the moved element, such as case or grammatical category. The particular form of wh-agreement is unpredictable: morphology that appears elsewhere in the language may occur, or it may surface as a special form that only occurs in wh-agreement. Many languages do not mark A' movement with special morphology at all. In this section I briefly highlight two languages, in order to illustrate the variety and range of morphological forms that instantiate wh-agreement.

McCloskey's (2001, 2002) discussion of Irish complementizers shows that a special form of C occurs when an A-bar dependency crosses the clause boundary. Finite declarative clauses are introduced by the complementizer *go* (also marked for tense) in (4). A-bar movement that crosses the clause boundary requires the complementizer to occur as one of the allomorphs of *aL*, illustrated in the relative clause in (5).<sup>3</sup> A third form of the complementizer, *aN*, occurs in the relative clause in (6).

- (4) Deir siad gur ghoid na síogaí í.  
say they C-[past] stole the fairies her  
'They say that the fairies stole her away.'
- (5) an ghirseach a ghoid na síogaí —  
the girl aL stole the fairies  
'the girl that the fairies stole away'
- (6) an ghirseach ar ghoid na síogaí í  
the girl aN stole the fairies her  
'the girl that the fairies stole away' (McCloskey 2001, ex. 1-3)

In McCloskey's analysis, the distinction between *aL* and *aN* is the type of element that occurs in the embedded clause: C occurs as *aL* when a trace is left behind by movement, whereas *aN* occurs when a resumptive pronoun occurs in the embedded clause.<sup>4</sup> In the case of long-distance A' extraction,

<sup>3</sup>As McCloskey notes, *aL* is called a direct relative particle in traditional grammars of Irish, not a complementizer.

<sup>4</sup>McCloskey argues that in cases of resumption such as (6), the head of the relative is base-generated in its surface position, so no A' movement has taken place. Under this analysis, *aN* does not mark movement, but rather an A' dependency that crosses the clause boundary.

morphological wh-agreement occurs more than once:

- (7) rud a gheall tú a dhéanfá  
 thing aL promised you aL do[COND-S2]  
 ‘something that you promised that you would do’ (McCloskey 2001, ex. 4)

In (7), the complementizer aL must introduce every clause from which movement has obtained. This falls under the recursive “flavor” of wh-agreement described in (E) above.

Chamorro also exhibits wh-agreement (Chung 1982, 1998). Special morphology occurs on both complementizers and verbs in this language; verbal wh-agreement is illustrated below.

- (8) Ha-fa’gasi si Juan i kareta.  
 agr-wash Juan the car  
 ‘Juan washed the car.’
- (9) Hayi *fuma*’gasi t i kareta?  
 who? WH[nom].wash the car  
 ‘Who washed the car?’
- (10) Hafa *fi*na’gasese-nna si Henry t para hagu?  
 what? WH[obj].wash.Prog-agr Henry for you  
 ‘What is Henry washing for you?’
- (11) Hafa pära fa’gase-mmu ni kareta t ?  
 what? Fut WH[obl].wash-agr Obl car  
 ‘What are you going to wash the car with?’ (Chung 1998:236, ex. 52, 53)

No A’ movement has occurred in (8) and the verb occurs as *fa’gasi* ‘wash.’ In (9-11) a question is formed via A’ extraction of the wh-phrase: the form of the verb not only registers this movement, but also marks grammatical function (case). The infix *-um-* marks movement of a nominative argument (9); the infix *-in-* marks movement of an objective argument (10). In (11), oblique case is optionally marked on the verb.<sup>5</sup>

Wh-agreement in Chamorro is not only interesting because it involves two domains (complementizers and verbs), but also because both recursive and non-recursive patterns occur in long-distance movement. Recursive wh-agreement occurs on the verb in each clause affected by A’ movement. This contrasts with wh-agreement on C (which Chung calls “Operator C” agreement, because the form of C is determined by the Operator that lands in its specifier). Morphological wh-agreement on C is non-recursive and only occurs on the highest complementizer that is crossed by A’ movement.

### 1.3 Proposal: Wh-agreement on C, Voice and D in Indonesian

The main claim advanced here is that Indonesian has wh-agreement in three domains: C, Voice, and D. In support of this analysis, the goals of this paper are three-fold.

First, I demonstrate that previously observed patterns in Indonesian complementizers (Section 2) and voice morphology (Section 3) are straightforwardly captured under an analysis of wh-agreement. Voice morphology, in particular, has been much discussed in the literature on languages of this area, and is usually treated as a language-specific (or area-specific) phenomenon. Under an analysis of wh-agreement, however, these alternations are viewed as part of a wider pattern that has been observed in other unrelated languages.

Second, Indonesian long-distance extraction displays a new “flavor” of wh-agreement in addition to those listed in property (E) of wh-agreement. In Section 2, I show that wh-agreement on C is neither recursive nor non-recursive. This calls for refinement to (3), the cross-linguistic profile of wh-agreement developed in Reintges et al. 2006.

Third, I extend this discussion of wh-agreement to the nominal domain (Section 4). By examining novel data from Indonesian possessor extraction, I show that special morphology is required

<sup>5</sup>This is a somewhat simplified account of the Chamorro pattern; see Chung 1982, 1998 for discussion of nominalization and optional morphology in Chamorro wh-agreement.

on D when a possessor is extracted from a possessive DP; this morphology is an instantiation of wh-movement on D. One implication of this analysis is an argument for DP as a phase in Indonesian. Wh-agreement within the nominal domain suggests a revision to property (D) listed in (3) above.

## 2 Wh-agreement on C in Indonesian

The overt complementizer *bahwa* (or the informal complementizer *kalau*)<sup>6</sup> introduces embedded declarative clauses in Indonesian, as shown in (12).

- (12) Aku pikir bahwa/∅ Susan mem-beli se-buah tas kemarin.  
 1SG think COMP Susan ACTV-buy one-CLF bag yesterday  
 ‘I think that Susan bought a bag yesterday.’

When no A’ movement occurs, C is optionally pronounced, similar to English *that*. (Non-pronunciation of C is represented in these examples with ∅, which I refer to as null C.)

Saddy (1991) observes that long-distance movement over C affects the form of the complementizer. In (13), extraction of the wh-phrase *siapa* ‘who’ from the embedded clause requires a null C, rather than the overt form *bahwa*.

- (13) Siapa yang kamu pikir \*bahwa/∅ \_\_\_ mem-beli se-buah tas kemarin?  
 who COMP.FOC 2SG think COMP ACTV-buy one-CLF bag yesterday  
 ‘Who do you think bought a bag yesterday?’  
 (14) Siapa yang \_\_\_ pikir bahwa/∅ Susan mem-beli se-buah tas kemarin?  
 who COMP.FOC 2SG think COMP Susan ACTV-buy one-CLF bag yesterday  
 ‘Who thinks that Susan bought a bag yesterday?’

A’ extraction only affects complementizers that are crossed along the path of movement. In (14), the wh-phrase has been extracted from the matrix clause and does not cross the lower C, which remains optionally pronounced as *bahwa*. Besides embedded C, the highest complementizer crossed by movement is also affected: a DP that has undergone A’ extraction to the left edge of the clause must be immediately followed by the form *yang*. This is illustrated in the long distance movement examples (13-14); movement to the edge of a single clause also requires *yang* (15-16):

- (15) Siapa yang \_\_\_ mem-beli se-buah tas kemarin?  
 who COMP.FOC buy one-CLF bag yesterday  
 ‘Who bought a bag yesterday?’  
 (16) tas yang Susan ∅-beli \_\_\_ kemarin  
 bag COMP.FOC Susan buy yesterday  
 ‘the bag that Susan bought yesterday’

*Yang* is not usually treated as a complementizer in the literature on Indonesian; it has previously been called a focus marker or relative morpheme (e.g. Saddy 1991, Arka 2000, Sneddon et al. 2012). However, there are several pieces of evidence that support an analysis of *yang* as the head C, like *bahwa*. First, *yang* always occurs higher than grammatical subjects (see 13 and 16), which are raised to SpecIP in Indonesian (Chung 1976, Guilfoyle et al. 1992, Cole and Hermon 2005, Cole et al. 2008). Second, focused constituents in clause-final or clause-medial position do not occur with *yang*; *yang* always occurs at the beginning of the clause. Headless relative clauses also begin with *yang*:

<sup>6</sup>For ease of exposition, only the complementizer *bahwa* is used throughout this discussion, but *bahwa* and *kalau* pattern together for all the examples in this paper. That is, they are both optional in environments such as (12), and both are disallowed when A’ movement crosses C. See Jeoung 2018a, Chapter 2 for further discussion of *bahwa* and *kalau*, including unusual cases in which *kalau* is licit while *bahwa* is disallowed (these contexts do not bear on the current discussion.)

<sup>7</sup>Note that some instances of long distance movement are judged to be degraded by Indonesian speakers. However, a first- or second-person pronominal subject in the matrix clause renders the sentence acceptable for my consultants.

- (17) Yang Susan  $\emptyset$ -beli kemarin, tas besar.  
 COMP.FOC Susan buy yesterday bag large  
 ‘(The thing) that Susan bought yesterday is a large bag.’

In the headless relative *yang Susan beli kemarin*, the morpheme *yang* does not attach to any focused constituent. Third, if the form *yang* were a focus marker, we would expect it to form a constituent with the focused (moved) argument. This is not the case: in (15), *tas yang* cannot be moved as a unit, nor can it be quantified or possessed. Based on these observations, I conclude that *yang* is a complementizer.<sup>8</sup> I assume that movement over C is movement through the edge of CP, that is, A' extraction of DP is phase-based successive-cyclic movement through the specifier of CP.

Comparing the forms of C between (12) and (13), the generalization that we observe is that the complementizer *bahwa* is optionally pronounced, except in case of A' extraction. When A' movement over C obtains, the highest C crossed by movement occurs as *yang*. This is true of both single-clause extraction and long distance extraction. In the case of long-distance A' movement, intermediate C must be null, while highest C occurs as *yang*. In brief, three forms of C alternate in a predictable and obligatory manner when A' extraction obtains: Indonesian C participates in morphological wh-agreement.

- (18) Morphological wh-agreement on C  
*bahwa (kalau)*: C that embeds a declarative clause; no A' movement  
*yang*: wh-agreement on highest C crossed by A' movement  
 null C: wh-agreement on intermediate C crossed by A' movement

Returning to the cross-linguistic profile developed in Reintges et al. 2006 and summarized in (3), let us consider property (E): wh-agreement is claimed to either be non-recursive, in which case only the first instance of movement is marked by morphological wh-agreement; or recursive, in which wh-agreement is marked by the same morphology, multiple times along the path of movement. We have seen in (13) that Indonesian long-distance movement does not follow either the recursive or non-recursive pattern. Instead, we have observed a third pattern: special morphology is marked along each C crossed by A' movement, but the highest C (*yang*) is marked differently from intermediate C (null form).

### 3 Wh-agreement on Voice in Indonesian

In this section I turn to wh-agreement on verbs. I begin with a well-known pattern in Indonesian morphosyntax, which is that verbal prefixes are affected by A' movement (see Wallace 1979, Kana 1983, Kaswanti Purwo 1989, Saddy 1991, Voskuil 2000, Cole and Hermon 2005, Cole et al. 2008, Sato 2012, among many others). When a DP argument is extracted over an active verb, the movement requires a change in the voice morpheme that is prefixed to the verb.<sup>9</sup> This is illustrated in (19-20) with A' extraction from object position.

- (19) Susan mem-beli se-buah tas kemarin.  
 Susan ACTV-buy one-CLF bag yesterday  
 ‘Susan bought a bag yesterday.’  
 (20) Apa yang Susan  $\emptyset$ -beli/\*mem-beli \_\_\_\_ kemarin?  
 What COMP.FOC Susan buy/ACTV-buy yesterday  
 ‘What did Susan buy yesterday?’

<sup>8</sup>Specifically, the complementizer *yang* is the spellout of the head C that bears a focus feature, and attracts a focused DP to its specifier. The head of a cleft, moved-wh question or relative is always focused in Indonesian. See Jeoung 2018a and references therein for further discussion of these (pseudo-)clefts and headless relatives.

<sup>9</sup>Here I use the term “active” to refer to verbs that may occur with the prefix *meN-* (which has several allomorphs). For some of these verbs, *meN-* may be optionally omitted. This optional omission also applies to some *ber-* prefixed verbs, and the extraction pattern in (19-20) also holds for *ber-* verbs that take an object (see Jeoung 2018a for discussion and examples).

In (19), no A' movement obtains, and the active prefix *mem-* occurs on the verb. In contrast, A' extraction of the wh-phrase *apa* 'what' in (20) results in the unavailability of the active voice prefix *mem-*. Instead, the verb must occur in a bare form, i.e. with a null prefix. As expected for A' movement in Indonesian, wh-agreement on C occurs as *yang*, as discussed in the previous section. When A' movement does not cross an active verb, the voice prefix is not affected. This is illustrated by extraction of the subject, rather than the object, from the same clause.

- (21) Siapa yang \_\_\_\_\_ mem-beli se-buah tas kemarin?  
 who COMP.FOC ACTV-buy one-CLF bag yesterday  
 'Who bought a bag yesterday?'

A' movement of the wh-phrase *siapa* 'who' to the left edge of the clause again triggers *yang* (wh-agreement on C), but since the movement has not crossed the verb, the active voice prefix *mem-* is not affected.

Previous authors characterize this alternation between the *meN-* prefixed verb and the bare verb in various ways. Voskuil (2000) proposes that voice affixes license a silent *pro* argument; *meN-* "blocks" A' movement of the direct object because the gap (or empty category) left behind functions as *pro*, which is ruled out by independent principles governing resumptive pronouns. Cole, Hermon and Yanti (2008) characterize the pattern as agreement (the Voice Agreement Hypothesis), in which voice prefixes agree with a displaced argument. In this system, *meN-* agrees with an Agent (which has moved out of its base position within vP to the grammatical subject position), whereas a bare verb (with null prefix) agrees with an object that has been displaced.<sup>10</sup> Cole et al. describe this as a language-specific requirement observed in Indonesian only. While I do not adopt this particular analysis, I note that Cole et al. are the first to characterize the pattern in the active voice prefix as a type of "agreement."

The alternation between (optional) *meN-* and the (obligatory) null prefix is easily captured under the properties of wh-agreement. The null prefix is "special morphology" that is required just in case of A' movement through the edge of the verbal domain. Successive-cyclic DP extraction is supported in a number of analyses for Indonesian as well as related languages (see Aldridge 2008, Cole et al. 2008, Sato 2008, Yanti 2010, Legate 2014 and others), although the category of the phase differs. For example, Cole et al. (2008) propose vP as the phase, whereas Legate (2014) implements phase-based movement through the edge of VoiceP; I adopt the latter position and assume that VoiceP embeds vP. For active verbs, the Voice head is spelled out in a predictable and obligatory manner when A' extraction obtains:

- (22) Morphological wh-agreement on Voice  
*meN-*: active voice; no A' movement (optionally pronounced)  
 null prefix: wh-agreement on active verb crossed by A' movement

Not only does this analysis unite the complementizer pattern with the active verbal prefix pattern, but it also brings an apparent language-specific phenomenon under the umbrella of a phenomenon that has been observed cross-linguistically.

One further implication arises from this discussion, regarding "apparent wh-in-situ." In their discussion of wh-agreement, Reintges et al. (2006:173-184) propose apparent wh-in-situ for Passamaquoddy and Coptic based on the co-occurrence of wh-agreement and wh-in-situ. In apparent wh-in-situ, A' movement occurs in the overt syntax, but only the lowest copy is pronounced at PF. Reintges et al. argue that syntactic movement triggers morphological wh-agreement, whether or not the wh-phrase is pronounced in its moved (highest) position. In contrast to Passamaquoddy and Coptic, it is clear that Indonesian does not have apparent wh-in-situ, since wh-in-situ questions do not require wh-agreement. Recall in (1), for example, that the active prefix on the verb is still licit when the wh-phrase is pronounced in the object position. Indonesian wh-in-situ, then, is not derived by

<sup>10</sup>Cole et al. (2008) characterize the *meN-* prefix and null prefix as a "Philippine-type" voice system in miniature; the passive prefix *di-* is excluded as a voice type that does not participate in agreement.

movement in the syntax but via another mechanism.<sup>11</sup>

#### 4 Wh-agreement on D in Indonesian

The patterns described thus far have supported an analysis of wh-agreement on complementizers and verbs in Indonesian. These coincide with classic domains for successive-cyclic movement; this suggests that if another XP is a phase for A' movement, that XP may also display morphological wh-agreement. In this section I show that in Indonesian, DP is a phase, and that A' extraction of possessors moves through the edge of DP. This movement requires special morphology on D, which is an instantiation of wh-agreement.

In Indonesian possessive DPs, the possessum is followed by the possessor (23). The definite suffix *-nya* is not required (23), but it optionally occurs on the possessum (24-25). Here, the occurrence of optional *-nya* (specifically in a possessive DP)<sup>12</sup> results in no semantic or pragmatic difference, and speakers attribute its occurrence in (24-25) to stylistic, regional or idiosyncratic usage.

- (23) buku Siti  
book Siti  
'Siti's book'
- (24) tas-(nya) Fatima  
bag-DEF Fatima  
'Fatima's bag'
- (25) rumah-(nya) siapa  
house-DEF who  
'whose house?'

In Indonesian, the possessor can also be extracted from its possessive DP, and can undergo A' movement like other nominal arguments. Possessor extraction is illustrated below from subject position (26-27) and object position (28-29).

- (26) Rumah Lani di-rata-kan kemarin.  
house Lani PASS-flat-APPL yesterday  
'Lani's house was destroyed yesterday.'
- (27) Siapa yang rumah-nya/\*rumah \_\_\_\_ di-rata-kan kemarin?  
who COMP.FOC house-DEF PASS-flat-APPL yesterday  
'Whose house was destroyed yesterday?'
- (28) Adik mem-baca buku Siti.  
sibling ACTV-read book Siti  
'Brother is reading Siti's book.'
- (29) Siapa yang adik Ø-baca buku-nya/\*buku \_\_\_\_?  
who COMP.FOC sibling read book-DEF  
'Who is it that brother is reading (her) book?'

As expected, A' movement of the possessor triggers wh-agreement on the active verb in (29), and wh-agreement on C in (27) and (29). Within the possessive DP, special morphology is also required: the suffix *-nya* must occur on the possessum in (27) and (29). The obligatory suffix *-nya*, then, is morphological wh-agreement within the DP. Note that example (29) exhibits all three types of morphological wh-agreement within a single clause.

Like wh-agreement on C and Voice in Indonesian, the relevant morpheme is optionally realized when no A' movement obtains (that is, *bahwa*, *meN-* and *-nya* are not always pronounced). Unlike wh-agreement on C and Voice, however, morphological wh-agreement within the DP is not a null

<sup>11</sup>In Jeoung 2018a I argue that Indonesian wh-in-situ is not derived by movement in the syntax but via another mechanism: unselective binding of a wh-variable by a question Operator, as first proposed in Cole and Hermon 1998.

<sup>12</sup>The suffix *-nya* has multiple functions and occurs in many non-possessive contexts; see Sneddon et al. 2012 for an overview.

form, but the overt form *-nya*. Recall property (C) from the summary in (3): morphology that occurs as wh-agreement only marks movement, and is bleached of its usual semantics. This is the case with *-nya* in (27) and (29), which does not contribute definiteness or specificity to the possesum.

This analysis departs from previous literature that discusses possessive noun phrases in Indonesian (note that I limit this discussion to possessive contexts in which *-nya* occurs; a full treatment of other occurrences of *-nya* is beyond the scope of this paper). Previous authors have suggested that in possessive contexts, the suffix *-nya* is a 3 possessive pronoun, or a resumptive pronoun (e.g. Voskuil 2000, Musgrave 2001). However, there are several reasons to doubt this view. First, *-nya* does not occur as a resumptive element in the extraction of non-possessor DPs. Second, we have already seen that *-nya* is optional in possessive DPs (without extraction). In these cases, *-nya* can occur in possessive DPs with pronominal possessors (30), a fact that is puzzling if *-nya* is a pronoun:

- (30) rumah(-nya)   aku/ kamu/ dia/ kita/ mereka/ orang  
           house-DEF   1SG 2SG   3SG/ 1PL 3PL   person  
           ‘my/ your/ her/ our/ their/ someone’s house’

Furthermore, in cases of possessor extraction, *-nya* occurs even when the possessor is 1 or 2 person:

- (31) Aku/ kamu   yang           rumah-nya   di-rata-kan.  
       1SG 2SG   COMP.FOC house-DEF   PASS-flat-APPL  
       ‘It is I/ you whose house was destroyed.’

On the other hand, the obligatory occurrence of *-nya* in (27) and (29) is straightforwardly captured under an analysis of morphological wh-agreement.

- (32) Morphological wh-agreement on D  
       *-nya* (optional): definite suffix (optionally pronounced in possessive DPs)  
       *-nya* (obligatory): wh-agreement on D crossed by A’ movement

When the possessor is A’ extracted, movement proceeds in successive-cyclic stages: first through the specifier of DP, then SpecVoiceP, finally landing in SpecCP. This derives the three instances of wh-agreement in (29). Furthermore, this analysis of wh-agreement on D provides support for the phasehood of DP in Indonesian. Possessor extraction triggers the same wh-agreement morphology on complementizers and verbs as other cases of A’ movement. Within the DP, A’ movement also triggers special morphology in the form of *-nya*, suggesting movement through the edge of DP.

## 5 Conclusion

The main claim in this paper is that Indonesian complementizers, verbal morphology and possessor extraction all exhibit special morphology triggered by A’ movement: in other words, morphological wh-agreement across three domains. Previously observed patterns in complementizers and verbal prefixes, which have received language-specific analyses, are re-framed under the umbrella of wider cross-linguistic wh-agreement phenomena.

I have shown that Indonesian exhibits a new pattern of wh-agreement in cases of long-distance A’ movement, marking highest C crossed by movement as *yang*, and intermediate C with a null form. This pattern, which does not fit the recursive or non-recursive pattern, constitutes a third “flavor” of wh-agreement to be added to the cross-linguistic profile developed in Reintges et al. 2006. To my knowledge, this is also the first report of wh-agreement on D. Consequently, the discussion of possessor extraction presented here expands the range of morphological wh-agreement to the nominal domain, suggesting that in addition to C and verbs, D can also be marked for A’ movement.

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