

Fronting and the Distribution of Auxiliaries in Javanese

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Our purpose in this paper is to discuss the analysis of auxiliary-like forms in the Javanese spoken natively by ethnically Chinese Javanese speakers in Semarang, the major urban center in Central Java.¹

We shall argue that these forms should be analyzed as functional heads similar to auxiliaries in familiar languages. While auxiliaries in Semarang Peranakan Javanese (hereafter SPJ) share many properties with these in European languages, we shall show that they manifest a variety of characteristics unique to SPJ. Consider, the examples in (1) and (2), in which the order of elements is the same as that in English.

- (1) Aku **isa** ngomong Inggris.
1sg can speak English
'I can speak English.'
- (2) Aku **tau** mangan sego.
1sg ever eat rice
'I have eaten rice before.'

The apparent auxiliaries *isa* 'can' and *tau* 'have' occur in a position to the left of the verb. It is ungrammatical to have these elements in postverbal position as shown in (3) or in sentence final position as shown in (4).

- (3) *Aku ngomong **isa** Inggris.
1sg speak can English
'I can speak English.'
- (4) ??Aku ngomong Inggris **isa**.²

Since the pattern in ((1)-(2)) is similar to that of auxiliaries in European languages, we shall examine whether SPJ is similar to European languages in having grammatical category of auxiliary, which is separate from that of verb. This proposal that SPJ has a category of auxiliary is controversial because it might be suggested that auxiliaries are simply a subclass of verbs. Indeed in recent work on Indonesian, Gil (1994) inter alia has argued that even major lexical distinctions like noun and verb do not occur in some varieties of Indonesian. We shall argue, however, that SPJ does in fact distinguish between verbs and inflectional elements like auxiliaries. First, we will show that auxiliaries and verbs differ morphologically, verbs can take verbal morphology but seeming auxiliaries cannot. Second, and more significantly, we will show that head fronting patterns differ for these two categories. In multiple auxiliary constructions, head fronting patterns suggest that these elements are functional heads and that there are two types of auxiliaries, movable and non-movable.

1. Verbal Morphology

Many active verbs in SPJ are preceded by a nasal prefix, as seen in (5).

- (5) Mben peserta **ngomong** Inggris.
every contestant N-speak English
'Every contestant speaks English.'
- (6) Budi **ngambung** Siti.
Budi N-kiss Siti
'Budi kissed Siti.'

However, as shown in (7-9), seeming auxiliary elements do not take the nasal prefix. The following sentences are grammatical with the bare auxiliary form. The forms *ngisa*, *nggelem* and *nau* do not exist.³

- (7) Aku ***ngisa** / isa ngomong Inggris.
1sg N-can /can speak English
'I can speak English.'
- (8) Aku ***nggelem** / gelem kopi.
1sg N-want / want coffee
'I want coffee.'
- (9) Aku ***nau** / tau mangan sego.
1sg N-ever/ever eat rice
'I have eaten rice before.'

The passive form of the transitive verb is derived by attaching the morpheme '*di-*' to the verb stem. Hence, in these active and passive constructions, there is an alternation between the nasal prefix and the *di-* prefix. *Diomong* is the passive counterpart of *ngomong*, and *diambung* is the passive counterpart for *ngambung*.

- (10) Inggris **diomong** (mbek) mben peserta.
English PASS-speak by every contestant
'English is spoken by every contestant.'
- (11) Siti **diambung** (mbek) Budi.
Siti PASS-kiss by Budi
'Siti was kissed by Budi.'

With seeming auxiliaries like *isa*, *gelem* and *tau*, the forms with the passive *di-* are ungrammatical. Even in constructions where seeming auxiliaries like *isa*, *gelem* and *tau* appear to have an NP object, as in (12), (14) and (15), passivization is not possible, as in the ungrammatical examples of (13), (15) and (17).⁴

- (12) Mben peserta **isa** Inggris.
Every contestant can English
'Every contestant can handle English.'

- (13) *Inggris **diisa** mben peserta.
English PASS-can every contestant
'English is handled by every contestant.'
- (14) Dheen **gelem** kopi.
3sg want coffee
'S/He wants coffee.'
- (15) *Kopi **digelem** dheen.⁵
Coffee PASS-want 3sg
'Coffee is wanted by him.'
- (16) aku **tau** sugeh.
1sg ever rich
'I have been rich.'
- (17) *Sugeh **ditau** aku.
rich PASS-ever 1sg

Furthermore, when a seeming auxiliary co-occurs with a verb as in (18), the passive morpheme *di-* is attached only to the verb and not to the seeming auxiliary. If *isa ngomong* were a complex verb, we would expect the passive morpheme *di-* to be attached to *isa*. However, *isa* can never take the passive morpheme as is shown below. We, therefore conclude that *isa* and similar forms appear to be morphologically distinct from true verbs.

- (18) Mben peserta isa ngomong Inggris.
Every contestant can speak English
'Every contestant can speak English.'
- (19) Inggris_i [isa diomong] t_i mben peserta.
English can PASS-speak every contestant
'English is spoken by every contestant.'
- (20) *Inggris_i [diisa ngomong] t_i mben peserta.
English PASS-can speak every contestant
- (21) *Inggris_i [diisa diomong] t_i mben peserta.
English PASS-can PASS-speak every contestant

In SPJ, the causative/applicative morphemes *ke-* and *i-*, add an extra argument to the argument structure of the verb.⁶

- (22) Wong lanang kuwi mati gek wingi.
person boy this die yesterday
'The man died yesterday.'
- (23) Dheen mateni wong lanang kuwi gek wingi.
3sg die-Appl person boy this yesterday
'He killed the man yesterday.'
- (24) Dheen entuk kerjaan.
3sg get job
'She got a job.'

- (25) Dheen ngentuke Mary kerjaan.
 3sg N-get-Appl Mary job
 'She got a job for Mary.'
- (26) Dheen ngentuke kerjaan nggo Mary.
 3sg N-get-Appl job for Mary.
 'She got a job for Mary.'

The causative/applicative suffixes cannot be attached to seeming auxiliaries. This constitutes another piece of evidence that seeming auxiliaries are distinct from verbs.

- (27) Dheen gelem mateni wong lanang kuwi.
 3sg want die-Appl person boy this
 'He wants to kill the man.'
- (28) *Dheen nggelemi/gelemi mate wong lanang kuwi.
 3sg N-gelem-Appl/gelem-Appl die person boy this
- (29) *Dheen nggelemi/gelemi mateni wong lanang kuwi.
 3sg N-gelem-Appl/gelem-Appl die-Appl person boy this
- (30) Dheen isa ngentuke kerjaan (nggo) ibue.
 3sg can get job for mother-his
 'He can get a job for his mother.'
- (31) *Dheen ngisake/isake entuk kerjaan (nggo) ibue.
 3sg N-can-Appl/can-Appl get job for mother-his
- (32) *Dheen ngisake/isake ngentuke kerjaan (nggo) ibue.
 3sg N-can-Appl/can-Appl get job for mother-his

In sum, we have shown that seeming auxiliaries lack verbal morphology and fail to undergo passivization, which suggests verbs and auxiliaries are morphologically separate categories. While this argument is only suggestive, our next argument, which is based solely on the syntactic distribution of verbs and seeming auxiliaries, will corroborate our claim that these two categories are distinct in SPJ.

2. Head fronting is unique to auxiliaries in SPJ

Our second class of arguments for the existence of a separate category of auxiliaries is based on instances of apparent 'subject-aux inversion'. We will show that the fronting of these seeming auxiliary elements is possible, but the fronting of verbal heads is not, a pattern suggesting that they are members of different categories.⁷

The following sentences show that the fronting of seeming auxiliaries to a position above the subject is possible.⁸

- (33) [Isa]_i dheen t_i ngomong Inggris?
 can 3sg speak English
 'Can he speak English?'

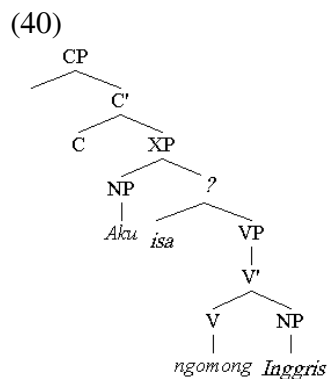
- (34) [Gelem]_i dheen t_i mangan sego?
 want 3sg eat rice
 'Does he want to eat rice?'
 (35) [Tau]_i Tono t_i sugeh?
 ever Tono rich
 'Has Tono ever been rich?'

However, it is ungrammatical to front verbal heads, as shown in the following examples.

- (36) *[__V Ngepruk]_i Budi t_i bale alon-alon?
 hit Budi ball slowly
 'Did Budi hit the ball slowly?'
 (37) *[__V Ngomong]_i dheen t_i Inggris?
 speak 3sg English
 'Does he speak English?'
 (38) *[__V Turu]_i dheen t_i enak mau mbengi?
 sleep 3sg well last night
 'Did he sleep well last night?'

These contrasting patterns suggest that verbs and auxiliaries in SPJ belong to separate categories. We hypothesize that elements like *isa*, *gelem* and *tau* are functional elements located between the CP and VP projections. The tree in (40) illustrates the derivation for sentence (39).

- (39) aku isa ngomong Inggris.
 1sg can N-speak English
 'I can speak English.'



We shall next examine whether elements like *isa* are functional heads, which project their own maximal projection, or whether they are adverbs adjoined to VP. In the following section, we will argue that these elements are indeed heads of a functional projection.

3. Fronting with multiple auxiliary constructions (an argument for auxiliaries as functional heads)

Thus far, we have established that seeming auxiliaries have a different distribution from that of verbs. We have, however not yet established whether these elements are adjoined to VP as adverbs or are generated as heads of functional projections. In this section, we will compare two hypotheses. According to Hypothesis X, “auxiliaries” are claimed to be adverbs adjoined to VP. Since adverbs do not block movement (as we will show later), this hypothesis predicts that movement of a “lower auxiliary” over a “higher auxiliary” should be possible. In contrast, Hypothesis Y, according to which these elements are functional heads, predicts that movement of a lower auxiliary over a higher one should be ruled out by the Head Movement Constraint. We will evaluate these two hypotheses and show that Hypothesis Y makes the correct predictions.

We shall assume that in SPJ, negation is an adverb. Under the assumption that auxiliaries are also adverbs, (41)-(42) show that movement of adverbs across negation, and hence, across adverbs, is possible.

- (41) Dheen ora isa ngomong Inggris.
3sg NEG can speak English
'He cannot speak English.'
- (42) [Isa]_i dheen ora t_i ngomong Inggris?
'Can't he speak English?'

The grammaticality of (43) shows that it is also possible to front these elements over adverbs of time. Since we know the auxiliary *gelem* cannot precede the adverb in (44), it must have moved over the adverb, *sesok* in (43).

- (43) [Gelem]_i dheen sesok t_i lungo blonjo?
want 3sg tomorrow go shopping
'Does he want to go shopping tomorrow?'
- (44) *Dheen gelem sesok lungo blonjo.
'He wants to go shopping tomorrow.'
- (45) Dheen sesok gelem lungo blonjo.
'He wants to go shopping tomorrow.'

These observations suggest that under Hypothesis X, movement of an adverbial phrase over another adverbial phrase is possible. Given this, Hypothesis X, which claims that “auxiliaries” are adverbs, predicts that it should be grammatical for a lower auxiliary to move over a higher auxiliary.

SPJ double-auxiliary constructions are illustrated below.⁹ In such constructions, the order in which the auxiliaries may occur is fixed. It is ungrammatical to have multiple-auxiliaries with the reversed order, as shown in (46) and (47).

- (46) Dheen gelem isa ngomong Inggris.
 3sg want can speak English
 'He wants to be able to speak English.'
- (47) *Dheen isa gelem ngomong Inggris.

In fronting one auxiliary in a double-auxiliary construction, it is possible to front the first auxiliary as shown in (48), but not the lower auxiliary, stranding the higher auxiliary, as shown in (49).¹⁰

- (48) [Gelem]_i dheen t_i isa ngomong Inggris.
 'Does he want to be able to speak English?'
- (49) *[Isa]_i dheen gelem t_i ngomong Inggris.
 'Does he want to be able to speak English?'

This shows that Hypothesis X is making the wrong predictions; the movement of one auxiliary over another is ungrammatical. In contrast, under Hypothesis Y, auxiliaries are claimed to be functional heads. Thus Hypothesis Y predicts (49) to be ungrammatical since the fronting of a head over another head is ruled out by the Head Movement Constraint (Travis, 1984).

- (50) Head Movement Constraint
 A zero-level category can only move to a position that governs its maximal projection.

Hypothesis Y makes the correct predictions since sentence (49) is indeed ungrammatical. Therefore, we conclude that auxiliaries must be heads of functional projections (FP) and not adverbs adjoined to VP.

Thus, the fronting of an auxiliary over an adverb or negation is not movement of an XP over another XP as claimed by Hypothesis X, but is, rather, a case of the movement of a head over an XP.

4. Other Possible Auxiliaries

In the previous section, we have argued that *isa*, *gelem* and *tau* are functional heads. In this section, we will investigate another group of auxiliary-like elements. These elements have characteristics similar to the auxiliaries discussed earlier in all aspects except with regard their ability to undergo fronting. We will argue that these elements are also functional heads, but that they are non-movable auxiliaries.

These auxiliary-like elements have the same distributional patterns as do *isa*-class auxiliaries. They occur in preverbal positions and are ungrammatical in postverbal and sentence final positions as shown below.

- (51) Siti **meh/gek/wis/harus** ngomong Inggris.
 Siti will/PROG/already/must speak English
 'Siti will/already/must speak English or Siti is speaking English.'

- (52) *Siti ngomong **meh/gek/wis/harus** Inggris.
 (53) *Siti ngomong Inggris **meh/gek/wis/harus**.

These auxiliary-like elements also lack verbal morphology like the nasal prefix ((54)), the passive prefix *di-* ((55)) and the causative/applicative *ke/i* suffix ((57)). In addition, we also observe that the passive morpheme is attached to the verb and not to the seeming auxiliary ((55)-(56)), suggesting that verbs and these seeming auxiliaries are distinct from one another.

- (54) Mben peserta **wis** / **nwis* ngomong Inggris.
 Every contestant already/N-already speak English
 ‘Every contestant has spoken English.’
 (55) Inggris meh diomong/**dimeh* ngomong mben peserta.
 English will PASS-speak/Pass-will speak every contestant
 ‘English will be spoken by every contestant.’
 (56) *Inggris dimeh diomong mben peserta.
 English PASS-will PASS-speak every contestant
 ‘English will be spoken by every contestant.’
 (57) **wiske/i*, **mehke/i*, **haruske/i*, **mestike/i*

However, unlike movable (*isa*-type) auxiliaries, these auxiliary-like elements do not undergo head fronting.

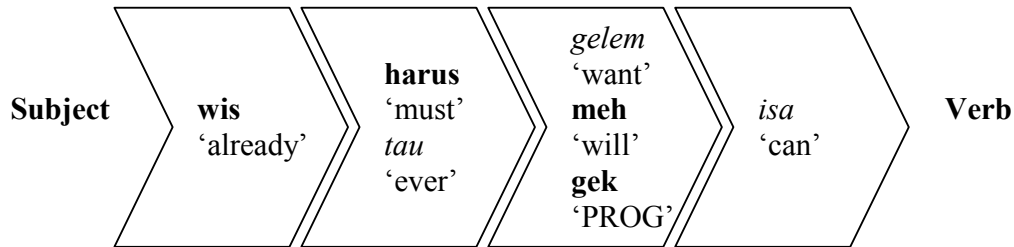
- (58) *[Meh]_i dheen t_i ngomong Inggris?
 will 3sg speak English
 ‘Will he speak English?’
 (59) *[Harus]_i dheen t_i ngomong Inggris?
 must 3sg speak English
 ‘Must he speak English?’
 (60) *[Wis] dheen t_i mbayar tagihane ?
 already 3sg pay bill
 ‘Has he paid the bill already?’
 (61) *[Gek]_i dheen t_i mangan sego?
 Prog 3sg eat rice
 ‘Is he eating rice?’

The pattern just observed suggests a few possibilities regarding the status of these elements. One, they may be heads of another functional category which forms its own projection, one that is different from that formed by moveable auxiliaries. Second, they could be adverbs with fixed positions or third, they could belong to the same category as movable auxiliaries but they lack the ability to move (perhaps because of a difference in feature content).

We shall first consider the position of the non-movable elements. If non-movable elements belong to a different category from that of auxiliaries like *isa*, *gelem* and *tau*, we should be able to specify the position of non-movable elements

with respect to auxiliaries in multiple-auxiliary constructions. However, our data show that auxiliaries generally show the left-to-right order below.¹¹

(62)



That is, the non-moveable auxiliary-like elements are scattered randomly among the moveable auxiliaries without forming a separate grouping. It is possible for these non-moveable auxiliary elements to be generated higher than moveable auxiliaries in some cases and lower in other cases. For instance in (63)-(64), *meh* can be generated in a position between the subject and the verb. It cannot, however, be lower than *isa*. However, in (65)-(66), either order of *meh* and *gelem* is grammatical.

- (63) Dheen **meh** *isa* nyetir montor.
3sg will can drive car
'He can drive a car.'
- (64) *Dheen *isa* **meh** nyetir montor.
'He can drive a car.'
- (65) Dheen **meh** *gelem* ngomong Inggris.
3sg will want speak English
'He will want to speak English.'
- (66) Dheen *gelem* **meh** ngomong Inggris.
'He wants to speak English in the future.'

Furthermore, in combinations involving three or more "auxiliaries", it is possible to have a non-moveable element intervening between two moveable auxiliaries. Therefore, there is no fixed location for these non-movable elements.

- (67) Aku *gelem* *meh* *isa* ngomong Inggris.
1sg want will can speak English
'I want to be able to speak English in the future.'

Thus, the word order possibilities suggest that these non-movable elements are not heads of a separable functional category, which forms its own projection, one that is different from moveable-auxiliaries.

Next, we consider the possibility that these elements are adverbs adjoined to VP. To evaluate this hypothesis, we look at the fronting pattern of constructions with a combination of moveable auxiliaries and non-moveable elements.

Earlier in (63)-(64), we established that certain combinations have a fixed order, e.g. *meh* has to be generated higher than *isa*. Since we know that *isa* is a movable head, it should be possible to move it over *meh* if *meh* is an adverb, i.e. not a functional head. As shown below, however, non-moveable auxiliary-like elements block movement of moveable auxiliaries. This shows that these elements are not adverbs since we have shown earlier that adverbs do not block movement of auxiliaries.

- (68) *[Isa]_i dheen meh t_i nyetir montor.
 can 3sg will drive car
 (69) *[Meh isa]_i dheen t_i nyetir montor.
 will can 3sg drive car

Under the third hypothesis, these elements belong to the same category as movable auxiliaries, namely they are functional heads. In accord with the third hypothesis, the above facts are to be expected because the Head Movement Constraint rules out movement of a head over another head. Therefore, these non-movable elements must also be heads of functional projections, like the movable auxiliaries. The only difference between these elements and movable auxiliaries is in the inability to move of the non-movable auxiliaries. This could be due to a difference in feature content between the two classes of auxiliaries.

5. Conclusion

So far, we have shown that verbs and auxiliaries in SPJ belong to different categories. First, seeming auxiliaries cannot take verbal morphology. Second, we have provided additional evidence from the pattern of fronting, namely that auxiliaries can undergo fronting but verbs cannot. We have also shown that auxiliaries are heads of functional projections, which exhibit distributional patterns that obey the Head Movement Constraint, much like those observed in functional projections in European languages. Finally, unlike European languages, there exist non-movable auxiliaries, which are distributed randomly with respect to movable auxiliaries and which block the fronting of movable auxiliaries, showing that also are functional heads.

6. Where does *isa* move to?

The next question that we would like to address is the location of the landing site of the moved auxiliary. For example, in (70), where does *isa* move to when it is fronted?

- (70) Isa_i [_{FP} dheen t_i [_{VP} ngomong Inggris]].
 'Can he speak English?'

We have established earlier that movement of the auxiliary is associated with yes-no question interpretation in SPJ. In English, subject-auxiliary inversion

for yes-no question formation is regarded as head-movement from T to C. However, yes-no questions in SPJ can also be formed with the insertion of an interrogative particle *apa*, as shown in (71).

- (71) Apa dheen isa ngomong Inggris?
 Q 3sg can speak English
 'Can he speak English?'

And when optional fronting occurs, *apa* can be still inserted, as shown in (72).

- (72) Apa isa_i dheen t_i ngomong Inggris?
 'Can he speak English?'

Therefore, before we can address the landing site of the moved auxiliary, we must first establish the position of *apa*.

Crosslinguistically, question particles frequently occupy C. To support the claim that *apa* is generated in C, we offer an argument based on Stowell (1981). In English, the preposition *about* selects a CP with a null head as shown in (73).

- (73) I was wondering about [CP who [C e] John saw].
 [CP whether [C e] John left].

When C is filled as in (74)-(75), the construction is ungrammatical.

- (74) *I was wondering about [CP [C that] John saw Bill].
 (75) *I was wondering about [CP [C if] John saw Bill].

In SPJ, we find the same restrictions. In (76), when the preposition *tentang* selects a CP headed by a null C, the sentence is grammatical.¹²

- (76) Aku pingin ngerti tentang [CP sapa_i [IP [DP [e_i] [CP OP_i [C sing] [IP t_i didelok John]]] t_j]].
 1sg want know about who that PASS-see John
 'I want to know about who was the one who was seen by John.'

In (77), however, when the C is occupied by *nek*, which is a complementizer that selects for an embedded declarative clause, the sentence is ungrammatical.

- (77) *Aku pingin ngerti tentang [CP [C nek] [IP John sing didelok Bill]].
 1sg want know about that John that PASS-see Bill
 '*I want to know about that it was John that was seen by Bill.'

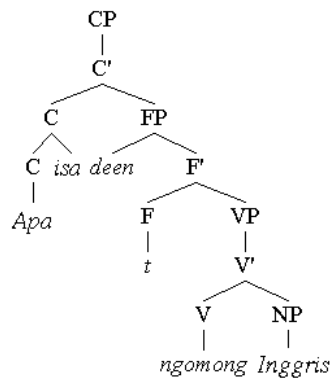
Similarly, when the preposition *tentang* is followed by the question word *apa*, it is ungrammatical as in (78) and without the preposition, the sentence is grammatical as in (79).

- (78) *Aku pingin ngerti tentang apa John sing didelok Bill.
 1sg want know about Q John that PASS-see Bill
 '*I want to know about if it was John that was seen by Bill.'
- (79) Aku pingin ngerti apa John sing didelok Bill.
 1sg want know Q John that PASS-see Bill
 '*I want to know if it was John that was seen by Bill.'

To correctly rule out (77)-(78), it must be the case that *apa* (like *nek*) occupies C.

On the assumption that *apa* is in C, we now consider the derivation of questions with both *apa* and the fronted auxiliary. One possible derivation is that shown in the following tree, in which *isa* is adjoined to *apa* in C.

(80)

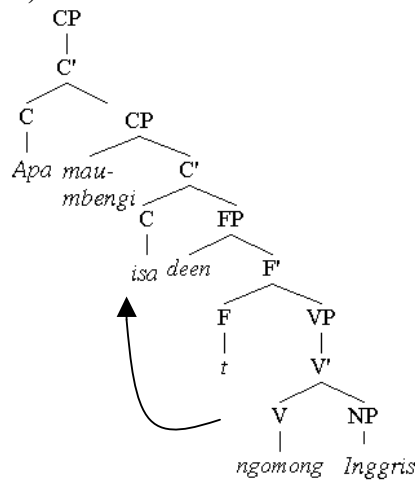


However, since it is also possible to have an adverb intervening between *apa* and the fronted head, as shown below, the above derivation is inadequate.

- (81) Apa mau-mbengi isa dheen turu enak.
 Q last-night can 3sg sleep well
 'Could he sleep well last night?'
- (82) Apa alon-alon gelem Budi ngepruk bale.
 Q slowly want Budi hit ball
 'Does he want to hit the ball slowly?'
- (83) Apa mbiyen tau Siti sugeh.
 Q before ever Siti rich
 'Was Siti ever rich before?'

Since we know that *apa* is generated in C, and we also know that the adjunction of *isa* to C is not possible, we propose a recursive CP structure, as shown in (84).

(84)



In other words, we claim that a CP headed by *apa* selects for another CP whose head is the landing site of head-fronted material.¹³

To sum up, we have shown that in SPJ auxiliaries exist as a category distinct from verbs. We have also shown that there are two classes of auxiliaries, moveable and non-moveable auxiliaries and that both classes are heads of functional projections. Finally, we have argued that the landing site of auxiliary-fronting is C in the CP recursion structure.

Endnotes

* We would like to thank Gabriella Hermon, Benjamin Bruening, Satoshi Tomioka, and participants of the syntax reading group at UD for helpful comments. This work was supported in part by funding from the Max Planck Institute for Evolutionary Anthropology.

¹ Javanese is the everyday language of both pribumi (ethnically Javanese) and ethnically Chinese (Peranakan) residents of Semarang. Our informants were educated in Indonesia, but are native speakers of Semarang Peranakan Javanese and use the language within the family and in many everyday activities. While our informants are ethnically Chinese, they are not able to speak any variety of Chinese. The examples here are an accurate reflection of the judgments of our informants, but they may not reflect those of pribumi speakers or of speakers of standard (Central) Javanese.

We would like to thank John Wolff and Niken Adisasmito-Smith for pointing out important differences between the Peranakan Javanese reported on here and the standard language. See Wolff (1997) for a discussion of differences between the Peranakan Javanese of ethnically Chinese speakers and the language of pribumi speakers in Semarang.

² This word order is possible in colloquial Javanese but it is possible only with special intonation. Even in this context, our informant finds the construction awkward.

- (i) Aku ngomong inggris? **Isa.**
 1sg speak English can
 'Me speak English? I suppose I can.'

³ There exists a few transitive verbs that do not take the nasal prefix, for example *tuku* 'buy', which is like intransitive verbs in SPJ (e.g. *туру* 'sleep'). However, these verbs can take a nasal prefix when the applicative suffix, *-ke* is present (e.g. *nukoke* 'N-buy-Appl' and *nuroke* 'N-sleep-Appl'). This suffix cannot be attached to *isa*, *gelem*, and *tau*.

⁴ At this point, we will not discuss whether the noun phrase after *isa gelem* and *tau* are true direct objects. Our point is that the seeming auxiliaries cannot take the passive prefix even though sentences like (12)-(15) appear to have the same word order as sentences with active transitive verbs.

⁵ It is possible to passivize *gelem* with the form *digelemi*. This form, however, does not occur in the speech of our informants. The ungrammaticality of *gelem* in the bare passive construction, as well, is further support for our claim that *gelem* may not be passivized and thus does not behave like a transitive verb in this dialect of Javanese.

- (i) Aku ngomong Inggris.
 1sg N-speak English
 'I speaks English.'
- (ii) Inggris mbok omong.
 English 1sg-PASS speak
 'English is spoken by me.'
- (iii) Aku gelem kopi.
 1sg want coffee
 'I wants coffee.'
- (iv) *Kopi mbok gelem.
 coffee 1sg-PASS want
 'Coffee is wanted by me.'

⁶ See Son and Cole (2002) and Cole and Son (2002) for an analysis of applicative morphemes in SPJ and Indonesian.

⁷ SPJ also allow phrasal fronting as shown below.

- (i) [Isa ngomong Inggris]_i dheen t_i.
 can speak English 3sg
 'He can speak English.'

We will not deal with this construction in this paper.

⁸ Our informant tells us that the fronting of an auxiliary results in an obligatory yes/no question reading, and that it requires a rising intonation. Otherwise, either the sentence is ungrammatical, or it requires a "special intonation".

⁹ Besides double-auxiliary construction, triple auxiliary constructions are also possible. The order of the auxiliaries is also fixed and (ii) is ungrammatical.

- (i) Dheen tau gelem isa ngomong Inggris.
 3sg ever want can speak English
 'He has wanted to be able to speak English before.'
- (ii) *Dheen gelem isa tau ngomong Inggris.
 3sg want can ever speak English

In these constructions, it is possible to front the first and all three auxiliaries, but not two of the three auxiliaries. The pattern of fronting with such constructions is quite complex and for reasons of space cannot be discussed here.

- (iii) Tau dheen gelem isa ngomong Inggris.
ever 3sg want can speak English
‘Has he ever wanted to be able to speak English before?’
- (iv) [Tau gelem isa]_i dheen t_i ngomong Inggris.
ever want can 3sg speak English
‘Has he ever wanted to be able to speak English?’
- (v) *Tau gelem dheen isa ngomong Inggris.
ever want 3sg can speak English
‘Has he ever wanted to be able to speak English before?’

¹⁰ It is also possible to front both of the auxiliaries as shown below. The surface order of the fronted auxiliary is identical to that in its declarative form.

- (i) [Gelem isa]_i dheen t_i ngomong Inggris?
want can 3sg speak English
‘Does he want to be able to speak English?’
- (ii) *[Isa gelem]_i dheen t_i ngomong Inggris?
can want 3sg speak English
‘Does he want to be able to speak English?’

¹¹ This diagram illustrates the general order of these elements. Some combinations are not possible. For example: *harus gek, *harus meh do not occur.

¹² The preposition *tentang* is a borrowing from Indonesian.

¹³ An alternative is that the AUX moves to a functional projection below CP.

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