Voice and grammatical relations in Indonesian: A new perspective

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Abstract

This paper deals with the voice system of Indonesian, and argues that certain of the constructions traditionally analysed as passives, should be given a different treatment, parallel to arguments by Kroeger (1993) for Tagalog. We examine the role of different conceptions of subject and their place in binding. We show that, unlike other Western Austronesian languages, the *logical* subject – *l-subject* for short (i.e., the semantically most prominent argument) plays little role in binding: being a logical-subject alone does not make an argument a binder. Syntactic prominence is crucial, and in particular the data on binding in Indonesian presented here further confirms the notion of syntacticised argument structured (*a-str*) first proposed in Manning (1994, 1996b) and also adopted in Arka (1998) wherein a central role is given to the notion of *a-subject*. Like other Austronesian languages, the (surface) *grammatical subject* (i.e., the SUBJ in the f-structure or *gr-subject* for short) plays little role, especially in the binding of morphologically complex reflexives. The data from binding is supported by other syntactic tests such as topicalisation with pronominal copy.

1. Grammatical Relations in Indonesian in Brief

Indonesian transitive verbs can appear prefixed with *meN-* or *di-* or without a prefix.[1] There is evidence that the Agent/l-subject *Amir* appearing with *meN-* (henceforth Agentive voice or AV) verbs in Indonesian as in (1) is syntactically the surface grammatical subject.

(1)	a.	Amir	mem-baca	buku	itu.
		Amir	meN-read	book	that
		'Amir read the book.'			

Among the important properties of the gr-subject in Indonesian (Kana 1986) are: (a) appears canonically in a preverbal position, (b) the only function that can be questioned by a clefted question word, relativised on or clefted, and (c) the only function that can be controlled, either as an equi-target of certain verbs or as the gapped function in controlled adverbial clauses. An additional test of a morphosyntactic character is that the 3sg pronoun can optionally be just *ia* rather than the usual *dia* when it is functioning as the gr-subject of a clause (adding adverbs etc. shows that this form is indeed grammatically not phonologically conditioned).

Thus, *Amir* in (1a) is the *gr-subject* because it comes preverbally, it can be <u>relativised</u> in a cleft sentence (to give a slightly different pragmatic implication):

(1)	b.	Amir	yang	mem-baca	Buku	itu.
		Amir	REL	meN-read	Book	that
		'It is Amir who read the book.'				

It can be an equi-target:

(1)	c.	Amir	ingin	[__	membaca	buku	itu]
		Amir	want		meN-read	book	that

It can be replaced by *ia*:

[1] The meN- prefix takes forms homorganic with a following consonant.

d. Ia mem-baca buku itu.
3sg meN-read book that
'He read the book.'

It is also widely agreed that the Agent of *di-* verbs expressed by a PP, as in (2), is an Oblique, while the Theme has grammatical subject properties. The grammatical relations in (2) thus mirror an English passive, and one might presume that *di-* is a passive marker, and we gloss it that way in (2). But actually the situation is a little more complicated, as we discuss below.

(2) Buku itu di-baca *oleh* *Amir*
book that PASS-read by (name)
'The book was read by Amir.'

The situation is less clear in other constructions where the *l*-subject is not the gr-subject, namely when it is expressed by the pronominals *saya*/*kamu*/*dia* or the clitics *ku-*/*kau-*/*-nya*, in the sentences shown in (3). All these sentences have the Undergoer as gr-subject, and the verbs lack the *meN-* (i.e., the AV) marker, being either bare, or prefixed with *di-*. Many studies in Indonesian syntax are unclear as to quite what syntactic status to give such sentences. As suggested by the glosses, such sentences are normally appropriately translated into English with active sentences, but syntactically they have been analysed as passives by previous studies (Chung 1976a; Kana 1986, among others), apparently due to the clear property that the Undergoer is the gr-subject and comes sentence initially.

(3) a. Buku itu *saya*/*kamu*/*dia* baca
book that 1sg/2/3 read
'The book, I read.'

b. Buku itu *ku-*/*kau-*baca
book that 1sg-/2-read
'The book, you read.'

c. Buku itu di-baca-nya
Book that PASS-read-3
'The book, (s)he read.'

Kana (1986) explicitly claims that the *l-subject* or the *initial subject* (i.e., the *initial-1* in RG terminology) in a sentence of the type in (3) is a *final 1*-Chomeur (i.e. a non-core argument, basically an Oblique). However, in what follows we show evidence that the pronominal immediately preceding the verb (3a), the proclitic (3b), and enclitic (3c) are still Term/core arguments. The evidence is mainly from binding, with some supporting evidence from a pronominal copy test, control, and discourse properties. Hence, in our view, the passive analysis for (3) is untenable.

Unlike *-nya* '3' (3c) (see also 2.3.3), the other enclitics *-ku* '1', *-mu* '2' and *-kau* '2' cannot be understood as l-subjects (4a), but only as undergoers (4b):

(4) a. * Buku itu (di-)baca-ku/-mu

book that (PASS-)read-1/-2
'I/you read the book.'

b. Amir me-lihat-ku/-mu
name AV-see-1/2/3
'Amir saw me/you'
*'I/you/ saw Amir'

2. Syntactic expressions of the l-subject and Binding

2.1 A-structure and Binding Theory in Brief

LFG has proposed a model of parallel representations, and in general prominence can be defined on any level. Accounts such as Dalrymple (1993) and T. Mohanan (1990) have made use of this to propose that some parts of binding theory may be sensitive to one level, and other parts to another level. In contrast, Manning (1996a) has argued that the principal constraints of binding theory can be defined on a level of syntacticised a-str, while admitting that some anaphors may require additional constraints, such as also requiring the binder to be a gr-subject. Within this theory, term arguments outrank obliques in a-str, and within each of those groupings, prominence is based on thematic or Lexical Conceptual Structure prominence (following Hellan 1988).

2.2 Binding in the AV constructions

In the AV constructions marked by meN-, the *l-subject, a-subject and gr-subject* are identical. For example, the relativization test shows that the agent *saya* in (5) is the gr-subject (5b). By way of contrast, the reflexive object cannot be relativised (5c). It is also the *a-subject*, a-commanding the *reflexive* theme *diri saya* (i.e. the object) in (5a), which we assume to have an argument structure as in (5d) – where the vertical bar is used to separate core or term arguments from obliques. By way of contrast, an attempt to make the gr-subject an anaphor fails as is shown in (5e).

(5) a. Saya menyerahkan <u>diri saya</u> ke polisi.
1sg AV.surrender self 1 to police
'I surrendered myself to the police.'

b. Saya *yang* menyerahkan <u>diri saya</u> ke polisi.
1sg REL AV.surrender self.1 to police
'It is me who surrendered myself to the police.'

c. * <u>Diri saya</u> *yang* saya menyerahkan ke polisi.
Self.1 REL 1sg AV.surrender to police
'It is myself that I surrendered to the police.'

d. <saya, diri saya | polisi >

e. * Diri saya menyerahkan saya ke polisi
Self.1 AV.surrender 1sg to police
* 'Myself surrendered I to the police.'

In short, the l-subject/Agent in the AV construction is an *a-subject* (and also a *gr-subject*). Binding in (5) is straightforward and exactly as one would expect from well-known accusative type languages. The data thus far does not serve to isolate any particular analysis.

2.3 The status of the Actor in non AV constructions

Binding properties show that non AV verbs cannot be lumped together as a homogenous class, traditionally simply called passives. In what follows, we discuss a variety of non AV verbs and examine the syntactic status of their l-subjects based on evidence from reflexive binding.

2.3.1 The status of the Actor in passive constructions: evidence from binding

As shown in (6), an *l-subject* appearing as an Oblique PP cannot bind a reflexive functioning as a *gr-subject.* This is consistent with a passive analysis of this construction, with the l-subject being an oblique.

(6)	a.	?**Dirinya*	di-serahkan	ke	Polisi	oleh	Amir
		self.3	PASS-surrender	to	police	by	(name)
		‘Himself was surrendered to the police by Amir.’					
	b.	??Dirinya	di-ajukan	sebagai	calon	*oleh*	*Amir*
		self.3	di-nominate	as	candidate	by	Amir
		‘Self was nominated as a candidate.’					

The same is true for pronominal agents which can appear either as an enclitic to the preposition *oleh-nya* or as a prepositional object *oleh dia.* They cannot bind a reflexive *gr-subject*.as shown by the contrast in (7):

(7)	a.	*Dirinya*	yang	dia	ajukan	sebagai	calon	<‘3’, ‘self.3’>
		self.3	REL	3	nominate	as	candidate	
		‘It is himself that he nominated as a candidate.’						
	b.	??*Dirinya*	yang		di-ajukan	sebagai	calon	*oleh-nya/oleh dia.*
		self.3	REL		PASS-nominate	as	candidate	by-3/by 3sg
		‘It is himself that is nominated as a candidate by him/her’. <<‘self.3’>< ‘3’>>						

The failure of binding in (6)-(7) shows that semantic binding does not apply in Indonesian. It is not the case that there is ‘semantic’ binding and all l-subjects are possible binders and can bind thematically lower arguments within their clause. Rather, it seems to be the case that, although the passive agent is an l-subject, the crucial fact is that it does not a-command the reflexive, since the reflexive gr-subject is higher in the a-str, because it is promoted in the passive (Manning 1996b; Manning and Sag 1998).[2]

[2] Under the theory of Pollard and Sag (1994), or Manning and Sag (1998), the reflexive in (6) or (7) is an *exempt* anaphor, and should be able to be bound by a suitable discourse referent, but at any rate, binding by the oblique agent does not seem possible here. Other Austronesian languages such as Balinese (Arka 1998) do allow a non a-commanded exempt reflexive to be bound by the oblique agent.

It is not that the passive agent is inert with respect to the binding theory, however. Examine the following sentences with a three place predicate 'ask':

(8)	a.	Amir/dia	menanyai	saya	tentang	dirinya	
		(name)	AV.ask	1	about	self	
		'Amir/he asked me about himself.'					
	b.	Saya	di-tanyai	oleh	Amir/dia/-nya	tentang	dirinya
		1	PASS-ask	by	Amir/3sg/3sg	about	self
		'I was asked by Amir/him about himself.'					

As expected according to the theory of Manning (1996b), the Agent oblique can bind other oblique arguments, such as the oblique theme in (8b), because it a-commands such arguments. The argument structure of (8b) would be as in (8c):

(8) c. <Saya$_i$, <Amir, –$_i$, dirinya>>

Di- verbs cannot appear with a non-third-person Agent:

(9)	* Buku	itu	sudah	di-baca	*olehku/mu*
	book	that	already	PASS-read	by-1sg/2
	'The book was already read by me/you'				

Backgrounding of non-third persons is not possible with the *di-* passive, but it is possible with an otherwise similar construction: the *ter-* verb prefix. The prefix *ter-* has various functions such as expressing a sense of ability or possibility, which generally appears in negative sentences, as in (10a), or an accidental event with a non-volitional doer as in (10b).

(10)	a.	Buku	itu	(*tidak*)	ter-baca	*olehku/oleh-mu/oleh-nya*	
		book	that	(NEG)	ter-read	by-1sg/by-2/by-3	
		'The book was (not) readable by me/by you/by him/her.'					
	b.	Obat	itu	ter-makan	oleh	anak	itu
		medicine	that	ter-eat	by	child	that
		'The medicine was unintentionally taken by the child.'					

In all these cases the Agent is backgrounded and can be expressed in a PP. In these constructions, the Agent again appears to be an oblique, as is shown by the inability to form (11b):

(11)	a.	Ia	ter-tembak	(oleh)	temannya
		3	ter-shoot	by	friend-3POSS
		'He was accidentally shot by his friend.'			
	b.	* Dirinya	ter-tembak	(oleh)	Amir
		self.3	ter-shoot	by	(name)
		*'Amir accidentally shot himself.'			

2.3.2 Verbs with preverbal pronominals: Objective Voice verbs

The *l-subject* of the type exemplified in (3a-b) can be of any person, but it must be a pronominal. A common noun cannot appear in this construction (unless it is used vocatively):

(12)	a.	* Buku	itu	orang	itu	baca	
		book	that	man	the	read	
		'The book, the man read.'					
	b.	* Buku	itu	akan	ayah	beli	
		book	that	FUT	father	buy	
		'The book, father will buy.'					

There are two forms for 1sg and 2sg, and the orthography writes the shorter, perhaps reduced ones as attached clitics, but all of them must appear immediately preceding the verb. (We are unsure at this point whether there is good phonological evidence for regarding any of them as phonologically attached.) Nothing can intervene in between: Sentence (13b) is bad because the auxiliary *akan* intervenes; (13c) is bad because an adverb intervenes. This suggests these words occupy a position at the left edge of the VP reserved for pronouns or pronominal clitics.

(13)	a.	Rumah	itu	*akan*	saya	jual	
		house	that	FUT	1sg	sell	
		'The house, I will sell.'					
	b.	* Rumah	itu	saya	*akan*	jual	
		house	that	1sg	FUT	sell	
	c.	* Rumah	itu	*akan*	saya	*besok*	jual
		house	that	FUT	1sg	tomorrow	sell

If the bare form of the verb is used, as in these examples, then the pronominal form cannot be omitted:

(14)	* Rumah	itu	akan	__	jual
	house	that	FUT		sell

The fact that the Agent must be present might be an indication that it is a Term, rather than an Oblique. Note that sentence (14) is not acceptable in any interpretation, e.g., it cannot be interpreted as having a first or second person l-subject.

Also, there is good evidence that the sentence-initial NP in these examples is the gr-subject, rather than just some kind of preposed topic. For instance, it is the NP that is the equi-target (Chung 1976b):

(15)	Saja	mem-bawa	surat	itu	untuk	(dapat)	kau-baca
	I	meN-bring	letter	the	for	can	you-read
	'I brought the letter to (be able to) be read by you.'						

2.3.2.1 Binding evidence

Evidence from binding further shows that the Agent pronominal in this construction has a very different status to a passive agent. Indeed, we argue that it is really a Term, hence an *a-subject*. In the following sentences, the reflexive *gr-subjects* can be bound by the preverbal pronominals (16). Evidence that the reflexives are *gr-subjects* comes from their appearance in the canonical subject position and the possibility of cleft formation by *yang* (17). Attempts to cleft a non-subject reflexive (i.e. by making the verbs appear in AV) fail (18)-(19).

(16) a. *Diri saya* *saya* serahkan ke polisi
Self.3 1sg surrender to police
'I surrendered myself to the police.'

b. *Dirimu* mesti *kau* serahkan ke polisi
Self.2 must 2 surrender to police
'You must surrender youself to the police.'

c. *Dirinya* mesti *dia* serahkan ke polisi
Self.3 must 3sg surrender to police
'(S)he must surrender herself/himself to the police.'

(17) a. *Diri saya* *yang* saya serahkan ke polisi
Self.1 REL 1sg surrender to police
'It is myself that I surrendered to the police.'

b. *Dirimu* yang mesti kau serahkan ke polisi
Self.2 REL must 2 surrender to police
'It is yourself that you must surrender to the police.'

c. *Dirinya* yang mesti *dia* serahkan ke polisi
Self.3 REL must 3sg surrender to police
'It is herself/himself that (s)he must surrender to the police.'

(18) a. Dia menyerahkan *dirinya* ke polisi (self = Obj)
3sg AV-surrender self.3 to police
'(S)he surrendered herself/himself to the police.'

b. * *Dirinya* yang dia meny-(s)erahkan ke polisi
Self.3 REL 3sg AV-surrender to police
'It is herself/himself that (s)he surrendered to the police.'

(19) a. Dia tidak ingat dengan *dirinya* (self = Obl)
3 NEG remember with self.3
'(S)he did not remember herself/himself.'

b. * *dengan* *dirinya* yang dia tidak ingat (relativisation of Obl)

Crucially, this binding behaviour differs from that of the oblique agent appearing in a PP headed by *oleh*, of the type that was shown in (6). This suggests that the syntactic status of the *l-subject* appearing as a preverbal pronominal in a non AV verb exemplified in (16)-(17) differs from that of an l-subject appearing in the PP with the *di-*

verb in (6). The *di*-verb with the PP agent is a passive construction with the Agent/l-subject being an oblique. The verb without *meN*- with a preverbal pronominal is not a passive verb. The *l-subject* is a Term, hence an a-subject. This corresponds to the idea that the sentence feels semantically 'active' (usually translated as an active), despite the fact that the non-agent argument is the surface gr-subject.

A construction with a cross mapping where an Agent a-subject is not a gr-subject, but still a term, and the gr-subject is a non-Agent core argument is an ergative construction (Dixon 1994; Manning 1996b). Following the terminology for Tagalog from Kroeger (1993) and Balinese by Arka (1998) and Wechsler and Arka (to appear), the Indonesian verbs with cross-mapping exemplified in (16)-(17) can be labelled as Objective Voice (OV) verbs. But this 'voice' should really be interpreted as an ergative construction within the language. Given the pervasive evidence from binding cross-linguistically (Manning1996a, 1996b; Arka 1998), it is misleading to collapse OV/ergative constructions with passives, or indeed any of the traditional 'voices'.

2.3.2.2 Control of complex arguments

Additional evidence for a preverbal pronoun being a term comes from control of complex arguments. It has been observed that the functional controller of a complex argument is restricted to a term (Bresnan 1982,[3] Arka and Simpson 1998). For example, the sentence **To go there was asked of John by me* is unacceptable because we cannot express the controller (*of John*) as a term argument, as an NP. Like Balinese (Arka and Simpson 1998), Indonesian shows a possible control into a complex argument acting as gr-subject, and crucially the controller must be a term:

(20) a. Saya/kamu/dia sudah men-coba [__ mencari kerja di kota]
1sg/2/3pl PERF AV-try AV-search job at city
'I/you/they have tried to look for a job in the city.'

b. [__ men-cari kerja di kota] yang sudah saya/kamu/mereka coba
AV-search job at city REL PERF 1sg/2/3pl try
'Looking for a job in the city is what I/you/(s)he has tried.'

c. ?* [__ men-cari kerja di kota] yang sudah
AV-search job at city REL PERF
di-coba oleh saya/kamu/mereka/Amir
PASS-try by 1sg/2/3pl/name
'Looking for a job in the city is what has been tried by me/you/them/Amir.'

Coba 'try' semantically has two arguments: a *trier* (a simple argument) and the thing tried (a proposition, a complex argument). It is a commitment type of verb, characterised by having a committer (i.e. the *trier*) as a controller. (20a) shows the AV construction with the controller as gr-subject (acceptable), (20b) shows the OV construction with the controller as a preverbal pronoun (acceptable), (20c) shows the controller as a non-term (oblique) and, crucially, the sentence is then unacceptable. This test again shows the preverbal pronoun grouping with other terms as opposed to obliques.

[3] In fact Bresnan's claim was that the functional controller be a semantically unrestricted function, among which she included Subject, Object and Secondary Object.

2.3.2.3 Topicalization with a pronominal copy

A little further evidence for the pronouns before the verb being term arguments can be derived from examining the construction where an NP becomes an external topic at the left margin of the clause, and then is repeated by a pronoun within the clause. This is possible when the pronoun is a term argument, as in (21a), but it is not possible with clear obliques such as the objects of prepositions, see (21b):

(21) a. Orang itu, dia tidak mau datang
person that 3sg NEG willing come
'That person, (s)he refused to come.'

b. ?* Orang itu, saya yang di-cari-cari oleh dia
person that 1 REL di-search-search by 3sg
'As for that person, it is me who (s)he is looking for.'

Note now that topicalization with pronominal copy is possible with the pronominal arguments that precede the verb, supporting our regarding them as term arguments:

(22) Orang itu, saya yang dia cari-cari
person that 1 REL 3sg OV.search-search
'As for the person, it is me who he is looking for.'

2.3.3 -nya: its distribution

The enclitic -*nya* attached to a head verb always expresses a core argument that is not the gr-subject (what we might term an OBJ or a term-complement). It can express an l-subject/agent as in (3c) or a patient functioning as an Object as in (23a). -*nya* cannot be the *gr-subject* (23b). That is, the structure in (23b) is forced to be an OV construction by dropping *meN-* making the preverbal pronominal agent *dia* a non gr-subject. We attempt to force the enlitic patient -*nya* to act as the gr-subject instead. It fails. In other words, although both the agent and patient arguments of the transitive verb are present in sentence (23b), the sentence is bad because it lacks a gr-subject; neither argument can act as the gr-subject. Note that a normal pronominal gr-subject *can* come post verbally (23c). The point is that -*nya* can appear attached to the verb only when another argument is the gr-subject: in the AV verb (marked by *meN*-, as in (23a)) where -*nya* is the undergoer, or else in the di- verb as in (3c) where -*nya* is the actor.

(23) a. Dia men-jelaskan-nya
3 AV-explain-3
'S(he) explained it.'

b. * dia jelaskan-nya
3 OV.explain-3
'(S)he explained it.'

c. Akan saya cari *dia*
FUT 1 search 3sg
'I'm going to look for him/her.'

The enclitic *-nya* can also appear attached to the preposition expressing an Oblique agent (24a). As noted previously, the pronominal *dia* is also possible. These forms must again appear with a *di- verb*, hence the unacceptability of (24b). The enclitic *-nya* cannot be doubled with the appearance of the preverbal pronominal *dia* (24c-d). (Thus, the contrast between (24a) and (24c-d) suggests that *di-* is not really a pronominal, *pace* Kana (1986) who suggests that *di-* is a shortened form of *dia*.)

(24) a. Buku itu sudah *di*-baca *oleh-nya* / *oleh dia*
book that already PASS-read by-3 by 3sg
'The book was already read by him/her.'

b. * Buku itu sudah baca *oleh-nya* / *oleh dia*
book that already read by-3 by 3sg

c. * Buku itu sudah *dia* baca-*nya*
book that already 3sg read-3

d. * Buku itu sudah *dia* baca *oleh-nya*
book that already 3sg read by-3

2.3.3.1 Binding by an enclitic -nya hosted by the head verb

This behaviour contrasts strongly with the binding behaviour of the enclitic *-nya* attached to the head verb. Consider:

(25) a. *Dirinya* tidak di-perhatikan-*nya* <‘3’, ‘self.3’>
self.3 NEG di-care-3
'(S)he didn't take care of himself/herself.'

b. *Dirinya* selalu di-utamakan-*nya*
self.3 always di-prioritise-3
'(S)he always giving priority of himself.'

It can be concluded that the third person agent appearing in PP is an Oblique, whereas the pronominal clitic hosted by the head verb is not, but rather a term complement in an ergative construction. It is still a term and an *a-subject* and so can bind the reflexive *gr-subject*.. This perhaps in part motivates its interesting discourse function briefly mentioned below.

2.3.3.2 Pronominal copy with -nya

The binding evidence supporting regarding *-nya* as a term in a transitive clause is again backed up by evidence for the possibility of topicalization with a pronominal copy, which as we have seen is only possible with term arguments:

(26) Orang itu, saya yang menolong-nya
person that 1 REL AV.help-3
'As for the person, I helped him/her.'

2.3.4 Binding by a postverbal NP

There is one final complication in the discussion of verbs with a *di-* prefix. Until now, we have shown examples with the agent expressed within a PP. But, somewhat surprisingly, *di-* verbs can also take a postverbal NP agent as in (27). Indeed, when the NP is indefinite as in (27a), the Agent NP is preferred to the PP. Some accounts suggest that this is possible because the preposition is in some sense optional, but this does not seem to be correct as a postverbal Agent NP is only possible when it is adjacent to the verb (Myhill 1988). Hence the acceptability contrast in (28a-d). This suggests that the agent NP occupies a different phrase structure position to the agent PP.

(27) a. Saya di-pukul orang / ?* oleh orang
1 di-hit man / by man
'I was hit by someone.'

(27) b. Saya di-marah-i (oleh) Amir/Ayah
1 di-angry-APPL (by) Amir /father
'I was scolded by Amir/father.'

(28) a. Saya di-beli-kan baju *oleh Amir*
1 di-buy-APPL shirt by Amir
'I was bought a shirt by Amir.'

b. Saya di-beli-kan *Amir* baju
1 di-buy-APPL Amir shirt
'I was bought a shirt by Amir.'

c. * Saya di-beli-kan baju *Amir*
1 di-buy-APPL shirt Amir

d. ?*Saya di-beli-kan *oleh Amir* baju
1 di-buy-APPL by Amir shirt

The question is what is the status of the postverbal NP agent. The fact that it occurs without a preposition suggests that it is a term argument. On the other hand, it cannot bind the gr-subject reflexive:

(29) a. ?**Dirinya* tidak di-perhatikan Amir
self.3 NEG di-care (name)
'Himself was not taken care by Amir.'

b. ?* *Dirinya* selalu di-utamakan Amir
self.3 always di-prioritise (name)
'(S)he always giving priority of himself.'

Furthermore, it cannot bind the theme object:

(29) c. Amir$_i$ di-perlihatkan Ayah$_j$ foto *dirinya*$_{i/*j}$
name di-show father picture self.3
'Amir$_i$ was shown the picture of himself$_{i/*j}$ by father$_j$.'

If the Agent NP *ayah* is a term, it should be a possible binder for *dirinya* because it is thematically the most prominent item. This suggests that it should be regarded as an oblique.

Further evidence comes from (possessor) topicalisation with a pronominal copy. Consider the possessor topicalisation of the subject (30a), of the object (30b) and of the postverbal agent NP (30c). Only the first two are acceptable. (Sentence (30d) shows the non topicalised version of (30c).)

(30) a.

Orang	itu,	ayah-<u>nya</u>	mencari-cari	kamu
person	that	father-3POSS	AV.search-search	2

‘The person$_i$, his/her$_i$ father is looking for you.’

b.

Orang	itu,	saya	yang	menolong	ayah-<u>nya</u>
person	that	1sg	REL	AV.help	father-3POSS

‘The person$_i$, it is me who helped his/her$_i$ father.’

c.

?*Orang	itu,	kamu	di-cari-cari	ayah-<u>nya</u>
person	that	2	di-search-search	father-3POSS

‘The person$_i$, you are wanted by his/her$_i$ father.’

d.

Kamu	di-cari-cari	ayah	orang	itu
2	di-seach-search	father	person	that

‘You are wanted by the father of the person.’

Myhill (1988) in fact argues that the agent noun is here incorporated. It is unclear to us whether we would want to say that – Myhill is basing this analysis on the loose definition of incorporation from Mithun (1984:849) which covers cases where ‘a verb and its direct object are simply juxtaposed to form an especially tight bond. The verb and noun remain separate words phonologically, but Ö the N loses its syntactic status as an argument of the sentence, and the VN unit functions as an intransitive predicate.’ But it is interesting to note that in this case there is evidence of the agent noun preceding enclitic particles which are semantically modifying the verb. For example, Myhill gives the example in (31), where the particle *-lah* is giving emphasis to the temporal sequencing of the verb, and not to the agent noun.[4]

(31)

Sebuah	talam	yang	berisi	penganan	diangkat	orang-lah	ke
a	tray	that	full	snacks	brought	person-**lah**	to

hadapan	Sutan	Menjinjing	Alam
honorific	S.	M.	A.

‘A tray full of snacks was brought (by a person) to Sutan Menjinjing Alam.’

On the other hand, this construction is definitely not the canonical case of noun incorporation widely discussed in the syntactic literature, since, as Myhill discusses, multiword agent NPs can appear in this construction. At any rate, all the available evidence suggests that the postverbal NP agent is not a term but an oblique, and so we will analyse it thus.

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[4] This example appears to be from an old text or perhaps Malay. At any rate, it sounds odd to the first author. In contemporary Indonesian **-lah** seems to be in complementary distribution with a post-verbal Agent NP.

3. Analysis

To summarize the discussion so far, binding suggests that an Agent/*l-subject* can have the syntactic expressions shown in Table 1. Given the a-str based binding theory, only the *l-subject* in AV (a), OV (b), and di-verb-nya (c.i) is a possible binder of term arguments within the same clause in Indonesian.

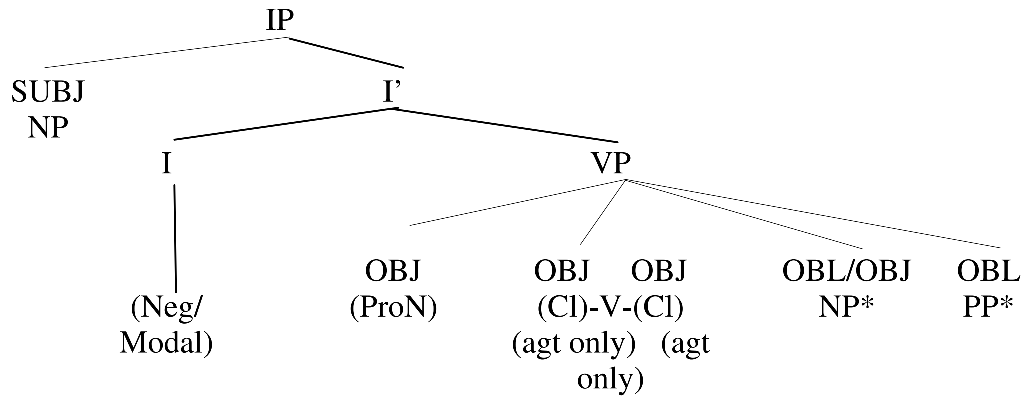
Table 1.

	Types of verbs	Nominal types/Category	Syntactic Status
a.	AV verb	*non-pron*, *pron*, not-*nya*	*gr-subject* & *a-subject*
b.	OV verb	*pronominal*, *proclitic*, not *non-pronominal*	*Not gr-subject* but *a-subject* (i.e. still a Term)
c.	di- verb	i. -*nya* hosted by the head V	*Not gr-subject* but *a-subject*
		ii. -*nya* hosted by a P	*Oblique* (i.e. not *a-subject*)
		iii. (non)-pron expressed in PP/NP	*Oblique* (i.e. not *a-subject*)
d	ter- verb	NP / PP	*Oblique* (i.e. not *a-subject*)

Note now that the presence of *di-* in conjunction with *-nya* (i.e., c.i. in Table 1, example (25)) argues that *di-* is not really a passive marker, because clauses with *di-* and *-nya* represent an ergative construction, which is still transitive. Rather, *di-* seems to be best analysed as simply encoding the mapping of an Undergoer Term to SUBJ (which is only part of what a passive marker does). *Di-* leaves the status of the *l-subject* unspecified, allowing other specifications such as the information structure to determine the exact syntactic expression of the *l-subject*. In the examples we have seen, the l-subject can be expressed in any of five ways: (i) as a preverbal pronoun (ii) as a pronominal prefix, (iii) as *-nya* as a suffix to the verb, (iv) as a prepositional phrase headed by *oleh* (and involving either a noun/pronoun or *-nya* again), or (v) as a postverbal oblique NP.

While there are various other possibilities, such as gr-subject postposing, it seems that the basic phrase structure that we have to work with is the following:

(32)



All the verbal clitic positions, including the preceding full pronouns, must be immediately adjacent to the verb and are reserved for words with pronominal meaning that express the OBJECT/Term-complement of the clause. These are used when the verb remains transitive. As shown by (32), the preverbal positions are positions for agent term complements only. When these positions are occupied, the clause is in the objective voice. The post verbal clitic position is not restricted to an agent. We have observed that *-nya* appearing in this position can be an agent (example (3c)) or a non agent (example (23a)). However, we note that *-nya* is somewhat exceptional in this regard, since the other enclitics that appear in this slot only express an undergoer term complement. When the verb has been passivized, these slots cannot be used, but the agent can be realized as an oblique, either as an NP oblique, which again must be adjacent to the verb, or as a PP oblique, which need not be.

These informal remarks raise some questions about how to treat and constrain the alternation between a syntactically active and ergative transitive construction and the passive construction. The most revealing approach to us appears to be to say that various morphemes serve merely to place constraints on the mapping between argument structure and grammatical relations. Using the terms Actor and Undergoer as convenient if informal shortcuts for the first two term arguments in the argument structure, and α as a correspondence function picking out the argument structure, we could then suggest the following constraints:

(33)	a.	meN-:	$(\uparrow \text{SUBJ}) = (\uparrow\alpha \text{ Actor})$
	b.	di-:	$(\uparrow \text{SUBJ}) = (\uparrow\alpha \text{ Undergoer})$
	c.	ter-:	$(\uparrow \text{OBLag}) = (\uparrow\alpha \text{ Actor})$
	d.	*saya/kamu/dia ku-/kau-* preceding verb:	$\downarrow = (\uparrow\alpha \text{ Actor})$
			$(\downarrow \text{PRED}) = \text{‘pro’}$
	e.	-ku/-mu/-kau:	$\downarrow = (\uparrow\alpha \text{ Undergoer})$
	f.	NP inside VP:	Cannot express Actor Term-complement

These constraints, together with a constraint on mapping to the effect that there must be a gr-subject (Bresnan and Kanerva 1989) are sufficient to ensure that only the observed patterns of linking actually occur. The constraint (33f) is somewhat unsatisfactory but reflects that Indonesian does not allow the free appearance of NP Actor Term-complements. In this respect it is like English, and unlike, say, Balinese (Arka 1988). However, Actor Term-complements can be expressed by the various pronouns and verbal clitics. To work through some of the possibilities, in turn:

1. If *meN-* is prefixed to the verb, then the Actor must be the Subject. The other term in a transitive argument structure must become the object and can be expressed either as an object NP or via a enclitic suffix on the verb.
2. If *di-* is prefixed to the verb, then the Subject is the Undergoer. This could be either because the verb is passivized or because the ergative construction is being used.
    a) If the verb is passivized, then the optional agentive oblique can be expressed either as a PP headed by *oleh* or in the immediately postverbal position for realization of agentive obliques that we discussed in 2.3.6.
    b) If the verb is not passivized, then the actor remains a term argument, and must be expressed in the sentence. Since the pre-verbal slot for expression is already taken, and an NP inside the VP and most of the enclitics cannot express an Actor, the only possibility is when the agent is realized by *-nya.*
3. If *saya/kamu/dia* immediately precedes the verb or *ku-/kau-* appear as proclitics on the verb, then they express the agent, but as a object/term complement. Therefore, the Undergoer must fill the subject slot. However, these are pronominal clitics, and therefore they cannot co-occur with another expression of the agent, such as a PP headed by *oleh.*

4. Discourse implications

Before closing, we will briefly touch on one of the interesting consequences of this analysis for a theory of information structuring, and in particular how it challenges even the simple theory of information structure that is commonly accepted in LFG. This section is largely based on material from McCune (1979). As has already been noted, ergative sentences with *-nya* are naturally translated with actives in English. For example, consider the following text:

(34)

Pe-muda	kakatua	juga	hidup	kembali.
AG-young	cockatoo	also	alive	return

Di-pandang-nya	wajah	Peggy	dan	Peggy	me-mandang-nya	pula.
di-look-3	face	Peggy	and	Peggy	meN-look-3	again

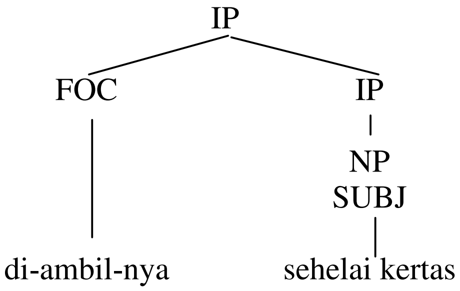
Di-ambil-nya	lagi	se-helai	serbet	kertas	…	dan	…
di-take-3	again	one-sheet	napkin	paper			and

'The young Mr Cockatoo also came back to life. He *looked* at Peggy's face and she looked at him, too. He *took* another paper napkin … and …'

The verbs in italics in the free translation are ergative clauses with *-nya* in the original. Note firstly that a passive translation of either of these sentences is implausible. But then note further that the discourse structure here thus goes against what is commonly assumed. Bresnan (1995) suggests that the grammatical subject is universally optionally identified as the default topic of the clause. But in Indonesian narratives, of which this one is quite typical, the subject is not used as a default topic. Rather, after the first sentence, the topic of this excerpt is young Mr Cockatoo, and he is consistently referred to by the term-complement enclitic *-nya.* The subject actually expresses new information, a pattern that is common in Indonesian (and Balinese). In both cases the verb appears before the subject. This option is generally available in Indonesian, and taking it here fits with the general tendency for new information to appear later in the sentence.

It is somewhat unclear whether to view this alternative as subject postposing or verb preposing, but we are tempted to analyse it as the latter because the verb receives some kind of pragmatic prominence in such sentences. On such an analysis, we might propose the structure in (35) for a simplified version of the last sentence in (34):

(35)



At any rate, this use of the subject position to express new information, which is not the *theme* of the narrative challenges most existing theories of information structuring, including that of LFG. Recognising that these sentences with *-nya* are not passives seems part of the solution of the problem, in that we would expect a term argument to have greater discourse prominence than an oblique agent, but clearly much more work in this area needs to be done.

5. Conclusions

We have shown that the Indonesian 'passive' should be divided between constructions that are genuinely comparable to an English passive, and ergative constructions that are not. For both these kinds of constructions, we have found strong support for an a-str based theory of binding. In the ergative construction, we find that term-complement a-subjects can bind gr-subjects, as for Toba Batak (Manning 1996a) and Balinese (Arka 1998). Within the passive constructions, although the oblique agent cannot bind any of the term arguments, it remains an a-subject and can bind other obliques. The Indonesian data presented here thus provide further congruent evidence in support of an a-str based theory of binding and mixed mappings between argument structure and grammatical relations in Western Austronesian languages. Finally, the ergative analysis of clauses with di-V-nya verbs sheds some light on their use in narrative texts, but raises new challenges for information packaging.

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