# Decomposing Malay anaphoric expressions

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# **1** Introduction

Previous studies on anaphoric expressions in Standard Malaysian/Singapore Malay (Cole and Hermon 1998, 2003, 2005; Nomoto 2011)

- centre on two forms: (i) '*diri* + pronoun', (ii) '*diri* + pronoun + sendiri'
- non-compositional:
  - These multimorphemic forms are treated as single lexical items/words on a par with English reflexives such as *himself*.
  - Their anaphoric properties are ascribed to the whole expression.

### This study

- covers a wider range of anaphoric expressions:
  - (i) 'diri + pronoun'
  - (ii) '*diri* + pronoun + *sendiri*'
  - (iii) 'diri + non-pronoun'
  - (iv) '*diri* + non-pronoun + *sendiri*'
  - (v) diri
  - (vi) diri sendiri
  - (vii) '(non-)pronoun + sendiri'
- (viii) sendiri
- compositional:

The anaphoric properties are ascribed to their constituent parts.

• Advantage: more insight into the study of anaphoric expressions in related dialects/languages (e.g. Gil 2001; Paul 2004; Davies 2008; Kartono 2013)

#### Outline

- 1. Introduction
- 2. The inventory of Malay anaphoric expressions: examples of patterns (i)-(viii) above
- 3. Non-compositional analysis: Cole and Hermon (2005)
- 4. Compositional analysis: my own analysis
- 5. Accounting for each pattern: accounts for patterns (i)-(viii)
- 6. Conclusion

## 2 The inventory of Malay anaphoric expressions

- Besides the two types discussed in previous studies (= (i), (ii)), Malay has many other patterns of anaphoric expressions (= (iii)–(viii)).
- All patterns are easily found in naturally occurring texts.

(i) '*diri* + **pronoun**' Looks like reflexives, but behaves like pronouns, except allowing a local antecedent as well.

- (1) Ali<sub>*i*</sub> kata [Siti<sub>*j*</sub> mengambil gambar **diri-nya**<sub>i/j/k</sub>]. (*k*: discourse referent) Ali say Siti take picture DIRI-3 'Ali said Siti took a picture of *him/herself/her*.'
- (2) [Bapak Siti<sub>j</sub>]<sub>i</sub> tidak suka **diri-nya**<sub>i/j/k</sub>. father Siti not like DIRI-3 'Siti's father does not like *her/himself/him*.'

(Cole and Hermon 2005:631)

(ii) '*diri* + pronoun + *sendiri*' True reflexives: subject to Condition A (locally bound).<sup>1</sup>

(3) a. [Ibu Siti<sub>j</sub>]<sub>i</sub> mengambil gambar **diri-nya sendiri**<sub>i/\*j/\*k</sub>. mother Siti take picture DIRI-3 own 'Siti's mother took a picture of *herself*.'

<sup>1</sup>Note that examples like (i) are a combination of pattern (i) '*diri* + pronoun' and the adverbial *sendiri* meaning 'alone, by oneself', and should not be confused with pattern (ii).

John fikir (yang) diri-nya sendiri akan pergi ke KL besok.
 John think that DIRI-3 alone will go to KL tomorrow
 'John thinks that he himself will go to KL tomorrow.'

b. Ali<sub>i</sub> kata Siti<sub>j</sub> mengambil gambar **diri-nya sendiri** $_{*i/j/*k}$ . Ali say Siti take picture DIRI-3 own 'Ali said Siti took a picture of *herself*.'

Examples (4)–(9) below are all taken from the DBP (Dewan Bahasa dan Pustaka) Corpus, except for (5b).

### (iii) '*diri* + non-pronoun'<sup>2</sup>

- (4) a. Segala kejadian biologikal dan fizikal ke atas diri remaja itu [...]. all incident biological and physical to top DIRI adolescent that 'All the biological and physical incidents that happen to *the adolescent* [...].'
  - Namun tidak ramai yang cuba memahami diri Shahnon sebagai however not many REL try understand DIRI Shahnon as pengarang sastera yang pragmatis.
     writer literature REL pragmatic
     'However, not many people try to understand Shahnon as a pragmatic author.'
  - c. Aku masih sedar siapa **diri ini** dan siapa dia. I still aware who DIRI this and who she 'I am still conscious of who *I* am and who she is.'

#### (iv) 'diri + non-pronoun + sendiri'

(5) a. Apabila tersalah memilih teman, ia akan memberi kesan yang besar when mistake choose friend it will give effect REL big terhadap diri remaja itu sendiri. towards DIRI adolescent that own

'If friends are chosen wrongly, that will have a big influence on *the adolescent*.' cf. (4a)

b. Oh itu sebenarnya bergantung pada **diri individu itu sendiri**. oh that actually depend on DIRI individual that own

<sup>2</sup>Note that non-pronouns are not used as pronoun substitutes here, unlike those in (i) below.

 (i) a. Tidak semua yang bertuah seperti diri adik-adik. not all REL fortunate like DIRI younger.sibling-PL
 'Not everyone is happy like you.' (adik: 2nd person pronoun substitute)
 b. Menurut teman Maya, si dia tu minat sangat kat Maya dan ir

Menurut teman Maya, si dia tu minat sangat kat Maya dan ingin mengenali diri according.to friend Maya Mr. he that interested very at Maya and want know DIRI Maya dengan lebih dekat.

Maya with more close

'According to my friend, the man is really interested in me and wants to get to know me more closely.' (*Maya*: 1st person pronoun substitute)

'Oh, that actually depends on the individual in question.'

(Multilingual Corpora (Malay): 30No#3-A306)

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(v) diri
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- (6) a. Itu penting, sebab dalam hidup ini keyakinan diri adalah 50% that important because in life this confidence DIRI be 50% daripada kemenangan. from victory
  'That is important because in life *self*-confidence is 50% of the success.'
  b. Ketika itu bercempera askar Jepun menyelamatkan diri. time that scattered soldier Japan save
  - time that scattered soldier Japan save DIRI 'At that time, the Japanese soldiers fled (lit. saved *themselves*) in disarray.'

### (vi) diri sendiri

- (7) a. Kini, anda bukan sahaja makan untuk diri sendiri.
   now you not only eat for DIRI own
   'Now you do not just eat for *yourself*.'
  - b. Sampai bila adik harus membohongi diri sendiri dan until when younger.sibling should deceive DIRI own and diri-nya?
    DIRI-3
    'When can you stop deceiving *yourself* and him?'

### (vii) '(non-)pronoun + sendiri'

(8) a. Bangsa Melayu di-katakan tidak mampu berfikir dalam bahasa **mereka** ethnic Malay PASS-say not able think in language their **sendiri**.

own

'Ethnic Malays are said to be unable to think in their own language.'

b. Ingat-lah bahawa perokok pasif atau orang yang menyedut remember-PART that smoker passive or person REL inhale asap rokok lebih senang di-serang penyakit daripada **perokok itu** smoke cigarette more easy PASS-attack disease from smoker that **sendiri**.

own

'Remember that passive smokers or those who inhale the smoke from cigarettes are more prone to diseases than *the smokers themselves*.'

#### (viii) sendiri

- (9) a. Daripada penulisan pelajar di atas, jelas bahawa pelajar tidak mempunyai from writing student at top clear that student not have idea **sendiri** [...].
  - idea own

'From the student's writing above, it is clear that the student does not have *his/her own* idea [...].

b. Di samping itu, responden tidak pasti sama ada mereka memiliki at side that respondent not certain whether they have

sikap bangga terhadap bahasa **sendiri**.

attitude pround towards language own

'Moreover, the respondents are not certain whether they take pride in *their* own language.'

# 3 Non-compositional analysis: Cole and Hermon (2005)

## Cole and Hermon's (2005) analysis of the hybrid property of 'diri + pronoun'

- *'Diri* + pronoun' allows a local antecedent like a reflexive, but it also allows a non-local and discourse antecedent like a pronominal.
- (1) Ali<sub>*i*</sub> kata [Siti<sub>*j*</sub> mengambil gambar **diri-nya**<sub>i/j/k</sub>]. (*k*: discourse referent) Ali say Siti take picture DIRI-3 'Ali said Siti took a picture of *him/herself/her*.'
  - "*dirinya* is not treated by the syntax as a complex DP [...], but rather as a unitary lexical entry." (Cole and Hermon 2005:643) → Table 1
  - "*diri* + pronoun is unspecified in the lexicon with regard to the features [ $\alpha$ anaphor] and [ $\alpha$ pronominal]." (Cole and Hermon 2005:631)

### Table 1: The full paradigm of 'diri + pronoun' (Cole and Hermon 2005:629)

Person	Singular	Plural
First Person	diri saya/diri-ku	diri kami/diri kita
Second Person	diri kamu/diri-mu	diri kamu/diri-mu
Third Person	diri-nya	diri mereka/diri-nya

- Given this analysis, a similar analysis has to be assumed for true reflexives '*diri* + pronoun + *sendiri*', though Cole and Hermon are not explicit about them.
  - '*diri* + pronoun + *sendiri*' is a unitary lexical entry with a paradigm (Table 2)
  - specified in the lexicon as [+anaphor, -pronominal]

Table 2: The full paradigm	of 'diri + pronoun +	sendiri
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Person	Singular	Plural
First	diri saya sendiri/diri-ku sendiri	diri kami/diri kita sendiri
Second	diri kamu sendiri/diri-mu sendiri	diri kamu sendiri/diri-mu sendiri
Third	diri-nya sendiri	diri mereka sendiri/diri-nya sendiri

### Problems

- The various expressions in section 2 (iii)–(viii) appear to result from combinations of the constituent parts of '*diri* + pronoun (+ *sendiri*)' (i)–(ii). Yet, the relation between (iii)–(viii) and (i)–(ii) is unclear, and has nothing to say about the former.
- The pronoun slot in '*diri* + pronoun (+ *sendiri*)' is not restricted to pronouns, but also available for other DPs (patterns (iii)–(iv)). It is implausible to think that (iii)–(iv) with non-pronouns are also unitary lexical entries belonging to paradigms.

 $\rightarrow$  More desirable if a compositional analysis is possible that can account for the binding properties of '*diri* + pronoun (+ *sendiri*)' as well as the other anaphoric expressions.

# 4 Compositional analysis

## **Two ingredients**

- 1. The semantics of diri
- 2. The null unspecified possessive pronoun pro

## 4.1 The semantics of *diri*

## Claims about diri

- Diri is an NP that takes a possessor argument.
- Diri denotes a function from an individual to that individual's physical self.<sup>3</sup>

 $<sup>^{3}(</sup>i)$  appears to run counter to this description, because *diri* is used as a hypernym encompassing both physical and mental selves. One possibility is that *diri* was chosen as a translation for a concept absent in the traditional Malay culture ('self' in Arabic?).

<sup>(</sup>i) Islam membahagikan diri manusia kepada dua bahagian yang utama, iaitu diri yang zahir dan diri yang batin. Diri yang zahir terdiri daripada anggota-anggota yang dilihat, baik dengan pandangan mata kasar mahupun yang tersembunyi dalam tubuh, seperti otak, jantung, dan sebagainya. Diri yang batin pula terdiri daripada akal, hati, dan kalbu.

<sup>&#</sup>x27;Islam divides the human *self* into two main categories, namely the external *self* and the internal *self*. The external *self* consists of visible parts, be they visible to the naked eye or hidden inside the body as

- (10)  $\llbracket \operatorname{diri} \rrbracket = \lambda x.x$ 's physical self  $\approx \lambda x.x$ 's  $x \approx \lambda x.x$ 
  - (10) is a pseudo-identity function, given that one's body, constituting his/her physical self, is the entire whole inalienably possessed by him/her.<sup>4</sup>

#### **Supporting facts**

- *Diri* is used in contrast with words such as *jiwa* 'soul', *hati* 'heart' and *batin* 'inner self', words representing the mental self of an individual:
- a. Saya terpaksa "meremajakan semula" diri dan jiwa saya.
   I have.to rejuvenate DIRI and soul my 'I had to rejuvenate my body and soul.'
  - b. Untuk sementara waktu, Ade harap abang, cuba-lah fahami lagi for while time Ade hope brother try-PART understand more siapa Ade ini, fahami diri dan hati Ade.
     who Ade this understand DIRI and heart Ade

'In the meanwhile, I hope you try to understand more who I am, to understand my physical self and heart.'

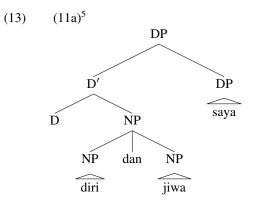
(DBP Corpus)

- If only the physical aspect of an individual changes, it is a change in *diri*:
- (12) Ular itu telah kembali kepada **diri** asal-nya, se-orang putera raja. snake that PRF return to DIRI original-3 one-CLF prince king 'The snake has transformed itself back into the original self, a prince.'

(Si Bongsu dengan Kak Nam)

- Syntactically, diri is
  - smaller than DP
  - can be modified by a possessor DP
  - can be coordinated with another non-DP noun phrase

<sup>4</sup>Kartono (2013) glosses *diri* in Indonesian, Palembangese and Jambi as 'body'. This is not a precise description of *diri* in Malay (and probably even in these languages). It is *badan* and *tubuh* that refer to what is referred to as 'body'. *Diri* is not interchangeable with these words, as it refers to an abstract notion reflecting the Malay perception of the self.



## 4.2 The null unspecified possessive pronoun *pro*

#### Claim

- Malay has a null unspecified possessive pronoun (pro).
- This pronoun is comparable to *one's* in English, and is a part of the pronoun paradigm (Table 3).

Table 3: Pronouns in Malay			
Person	Number	Pronoun	English (genitive)
		pro	one's
1	Sg	saya, aku/-ku	my
1	Incl	kita	our
1	Excl	kami	our
2		awak, engkau, kamu/-mu	your
3	Sg	dia/-nya, ia/-nya	his/her, its
3	Pl	mereka (, -nya)	their

- Where anaphoric expressions are concerned, pro occurs in two contexts.
  - 1. as a possessor argument of diri
  - 2. with the intensifier sendiri 'alone, own'

is the case with brains, hearts and so forth. The internal *self*, on the other hand, consists of intelligence, mind and soul.'

 $<sup>{}^{5}</sup>$ I assume for the sake of simplicity that (i) the possessor is merged in Spec,DP (putting aside the potential co-occurrence of a demonstrative), (ii) Spec,DP is linearized to the right of D' and (iii) no movement is involved to derive the surface 'possessum-possessor' order. These assumptions are not crucial to the argument here.

• The introduction of *pro* reduces the eight patterns into just three types.

(i)	<i>diri</i> + pronoun'	
(iii)	<i>'diri</i> + non-pronoun'	(B) ' <i>diri</i> + DP'
(v)	diri = diri + pro	J
(ii)	<i>'diri</i> + pronoun + <i>sendiri'</i>	)
(iv)	<i>'diri</i> + non-pronoun + <i>sendiri'</i>	(D) 'diri + DP + sendiri'
(vi)	diri sendiri = 'diri + pro + sendiri'	J
(vii)	'(non-)pronoun + <i>sendiri</i> '	(C) (DD and $ini'$
(viii)	sendiri = 'pro + sendiri'	(C) 'DP sendiri'

- (D) 'diri + DP + sendiri' is a combination of (B) 'diri + DP' and (C) 'DP sendiri'.
- Various anaphoric expressions in Malay can be summarized as in Table 4.

	• •	C X K 1	1 .	•
lahle /I· Ih	a composition	ot Malav	ananhoric	ovnroceione
1 a n - 4. In	e composition	UT IVIAIAV	анарионс	CADICSSIONS

	Non-focussed	Focussed (sendiri)
Non-	(A) DP	(C) DP sendiri
emphatic	[ <sub>A</sub> DP ]	$[_C [_A DP ]$ sendiri ]
	<i>prol</i> -nya/Ali	pro/-nya/Ali sendiri
	'one's/his/her/Ali's'	'one's/his/her/Ali's own'
Emphatic	(B) diri DP	(D) diri DP sendiri
(diri)	[ <i>B</i> diri [ <i>A</i> DP ]]	$[_{D} [_{B} \text{ diri DP}] \text{ sendiri }]/$
		$[_D \text{ diri } [_C \text{ DP sendiri }]]$
	diri <i>pro</i> /-nya/Ali	diri pro/-nya/Ali sendiri
	'one's/his/her/Ali's physical self'	'one's/his/her/Ali's own physical self'

- Emphatic forms: Virtually identical denotation but more expression compared to simple DPs (A) (cf. (10))<sup>6</sup>
- Focussed forms: The semantics of *sendiri* involves focus semantics ( $\rightarrow$  section 5.2).

## **5** Accounting for each pattern

## 5.1 *Diri* DP (B. Emphatic forms)

- 5.1.1 Diri by itself
  - The meaning is generic, and not one of simple reflexivity.

- This generic meaning is due to the unspecified nature of *pro* accompanying *diri* (*diri pro*): 'one's' rather than 'my/your/his/her/etc.' (cf. Table 3).
- Similar to *self* in English.<sup>7</sup>

#### Noun modifier diri

- An NP modified by *diri* is interpreted generically as in (14a), and cannot be associated with a particular individual as in (14b).
- a. Siti tidak lalai menjaga [kecantikan/maruah diri]. Siti not careless keep beauty/dignity DIRI 'Siti does not fail to take care of her beauty/dignity.' (cf. self-beauty, selfdignity)
   b. \*Siti mengambil [gambar diri].<sup>8</sup> Siti take picture DIRI
  - For: 'Siti took a picture of herself.'

<sup>7</sup>Chung (1976) analyses *diri* in Indonesian as a clitic attaching to a verb, as it cannot be separated from the verb by a PP, as in (i). Gil (2001) reaches a similar conclusion for *diri* in Riau Indonesian. However, under the present analysis, where *diri* is a phrase containing a null possessor DP *pro*, the same data needs a different explanation, e.g., the adjacency requirement on Accusative Case assignment (Ramli 1995).

(i)	a.	Apakah dia membunuh diri [di kebun]?
		Q he kill DIRI at garden
		'Did he kill himself in the garden?'
	b.	*Apakah dia membunuh [di kebun] diri?
		Q he kill at garden DIRI

(Chung 1976:44)

<sup>8</sup>Examples of *gambar diri* were actually found in the Internet, though they were very rare. All attested examples were in Indonesian, and *gambar diri* had a specialized meaning, namely 'selfie', and hence was not associated with a particular individual.

 (i) a. Saya hobi mengambil [gambar diri] atau foto narsis.
 I hobby take picture DIRI or photo narcissistic 'As for me, my hobby is taking selfies or narcissistic photos.'

> (http://www.malang-post.com/ekonomibisnis/ 78359-latihan-senyum-sesuai-kebutuhan, accessed 08/03/2014)

b. Karena itu dia berharap kepada anggota-nya maupun masyarakat umumnya tidak because that he hope to member-3 or community general not sembarangan mengambil [gambar diri] dari ponsel.
 arbitrary take picture DIRI from cellphone
 'Thus he hopes that the police staffs (working under him) and also the general public will not take selfies with their mobiles with no reason.'

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(http://politik.rmol.co/read/2013/10/31/131468/
Ini-Kata-Kapolri-Soal-Foto-Bugil-Anggotanya-, accessed
08/03/2014)
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<sup>&</sup>lt;sup>6</sup>In this connection, Kartono (2013:50–53) points out that emphatic forms in Indonesian (more specifically '*diri* + pronoun' in a subject position) are used to express respect and empathy. This description seems also valid in Malay.

#### Verbal complement diri

- The VP describes an event that is generally self-directed rather than one that can be other-directed as well as self-directed.
- E.g., *memukul diri* 'to hit herself' in (15) describes a self-hitting action conducted for specific purposes (e.g. religious rituals) rather than just any kind of self-hitting.
- (15) Ali<sub>i</sub> kata Siti<sub>j</sub> memukul **diri**<sub>\*i/j/\*k</sub>. Ali say Siti hit DIRI 'Ali said Siti hit herself.' (cf. self-hit)
  - The generic meaning 'V one's physical self ≈ V oneself' makes a transitive verb semantically intransitive, also exemplified by the phrases in (16).
  - This explains not only its inherently self-directed meaning but also what appears to be local binding in (15).
- (16) a. membunuh diri kill DIRI 'to suicide'
  - b. melarikan/melepaskan diri make.run/release DIRI 'to run away'
  - c. melibatkan diri invole DIRI 'to get involved'
  - d. menyerahkan diri yield DIRI 'to surrender'

#### 5.1.2 Diri + DP

- The DP saturates *diri*'s possessor argument to form its emphatic form ('DP X-self').
- This applies to both pronouns (17) and non-pronouns (18). Previous analyses miss this commonality, as they disregard the latter and treat '*diri* + pronoun' non-compositionally.
- (17) Ali<sub>i</sub> kata Siti<sub>j</sub> selalu memuji [**diri-nya**]<sub>i/j/k</sub>. Ali say Siti always praise DIRI-3 'Ali says Siti always praises him/her/herself.'
- (18) Pujian yang Nabi Muhammad berikan adalah ditujukan kepada hasil kerja yang baik. Beliau tidak memuji diri [DP orang yang melakukan kerja yang baik itu].
   'Praises given by Prophet Muhammad are directed towards a good deed. He does not praise *the PERSON who did the good deed*.'

(Analisis Hadith Psikologi, http://hadithpsikologi.blogspot.jp/ 2012/03/nabi-muhammad-memuji-hasil-kerja.html, accessed 10/01/2014)

#### The binding properties of 'diri + pronoun'

- 'Diri + pronoun' is an emphatic pronoun and shows pronominal behaviours (indices i and k in (17)).
- However, local binding is also possible (index j in (17)).
- I adopt an account for this local binding property suggested (but rejected) by Cole and Hermon (2005):
  - The interpretation of '*diri* + pronoun' is determined by the antecedent of the possessor pronoun.
  - Given the semantics of *diri* in (10) (repeated below), the indices of the possessor and the entire phrase become virtually identical, as in (19).
  - A direct object possessor can be coreferential with the local subject, as in (20).
  - Replacing anak lelaki in (20) by diri, (21) is obtained.
- (10)  $\llbracket \operatorname{diri} \rrbracket = \lambda x.x$ 's physical self  $\approx \lambda x.x$ 's  $x \approx \lambda x.x$
- (19) dirinya:  $y_1$

diri:  $\lambda x.x$  -nya:  $y_1$ 

- (20) Ali kata Siti<sub>j</sub> selalu memuji [anak lelaki- $nya_j$ ]. Ali say Siti always praise child male-3 'Ali says Siti always praises her son.'
- (21) Ali kata Siti<sub>j</sub> selalu memuji [diri-nya<sub>j</sub>]<sub>j</sub>.
  Ali say Siti always praise DIRI-3
  'Ali says Siti always praises herself (lit. her physical self).'
  - Cole and Hermon (2005) rejects this analysis, I believe, by mistake.
  - They expect sentences (22)–(23) to pattern with (24)–(25) rather than (26)–(27) in terms of Condition C, presumably confusing the index of the possessor *-nya* in (24)–(25) with that of the whole DP.<sup>9</sup>
  - What one actually predicts is (22)–(23) patterning with (26)–(27) rather than (24)–(25), given the correct indexing shown in the parentheses.

<sup>&</sup>lt;sup>9</sup>Paul (2004) makes a similar mistake in her discussion of Malagasy ny tenany [DET self.3(GEN)].

- \*Diri-nya<sub>i</sub> mencium John<sub>i</sub>. ([diri-nya<sub>i</sub>]<sub>i</sub>)
   DIRI-3 kiss John
   'He kissed John.'
- \*Diri-nya<sub>i</sub> di-cium (oleh) John<sub>i</sub>. ([diri-nya<sub>i</sub>]<sub>i</sub>)
   DIRI-3 PASS-kiss by John
   'He was kissed by John.'
- (24) Anjing-nya<sub>i</sub> menggigit John<sub>i</sub>. ([anjing-nya<sub>i</sub>]<sub>j</sub>) dog-3 bite John 'His dog bit John.'
- (25) Anjing-nya<sub>i</sub> di-pukul (oleh) John<sub>i</sub>. ([anjing-nya<sub>i</sub>]<sub>j</sub>) dog-3 PASS-hit by John
   'His dog was hite by John.'
- (26) \*Dia<sub>i</sub> mencium John<sub>i</sub>. (dia<sub>i</sub>) 3 kiss John
- (27) \*Dia<sub>i</sub> di-cium (oleh) John<sub>i</sub>. (dia<sub>i</sub>) 3 PASS-kiss by John

## 5.2 DP sendiri (C. Focussed forms)

- When used by itself, *sendiri* 'alone, own' (in object position) requires a local antecedent (Alsagoff 1992).
- This seems to be a property inherent to *sendiri*.
- (28) Mariam<sub>i</sub> kata bahawa Ali<sub>j</sub> menjual kereta **sendiri**<sub>\*i/j</sub>. Mariam say that Ali sell car own 'Mariam said that Ali sold \*her/his car.'

(Alsagoff 1992:41)

- In the present analysis, *sendiri* in (28) is in fact *pro sendiri*.
- The role of *sendiri* is to restrict the otherwise unspecified reference of *pro* to that of its antecedent (i.e. restricting possible interpretations to a reflexive one).
- (29) a. Mariam<sub>i</sub> kata bahawa Ali<sub>j</sub> menjual kereta**-nya**<sub>i/j/k</sub>. Mariam say that Ali sell car-3 'Mariam said that Ali sold her/his car.' (reflexive and non-reflexive)<sup>10</sup>
  - b. Mariam<sub>i</sub> kata bahawa Ali<sub>j</sub> menjual kereta**-nya** $_{i/j/*k}$  sendiri. Mariam say that Ali sell car-3 own 'Mariam said that Ali sold \*her/his own car.' (reflexive only)

## The function of *sendiri* (in object position) in more detail

- *Sendiri* involves focus semantics, as Gil (2001) proposes for *sendiri* in Riau Indonesian.<sup>11</sup>.
- It induces a set consisting of the potential referents of the expression it combines with  $(DP_f \text{ in (30a)})$  (30b), and excludes from this set all members but the referent of the antecedent  $(DP_a \text{ in (30a)})$  (30c).
- (30) a.  $DP_a V [_{OBJ} NP DP_f \text{ sendiri }], \text{ where } \llbracket DP_a \rrbracket = a$ 
  - b. 'DP<sub>f</sub> sendiri' induces  $F = \{a, b, c, d, \dots\}$
  - c. Among  $\{a, b, c, d, \dots\}$ , V applies only to a.
    - (i) If  $DP_f$  is a pronoun whose  $\phi$ -features are compatible with  $DP_a$ , then  $[\![DP_a]\!] = [\![DP_f]\!] = a$ . (reflexive interpretation) e.g. Ali V  $[_{OBJ}$  NP *pro*/-nya sendiri ] (*-nya* 'his/her')
    - (ii) Otherwise, ungrammatical (because a is not in F).
      e.g. Ali V [<sub>OBJ</sub> NP saya/Siti sendiri ] (saya 'my')
  - Gil (2001:112): "in Standard Malay/Indonesian, the actual form *sendiri* appears to function as a reflexive only in possessive constructions"

## 5.3 Diri DP sendiri (D. Focussed emphatic forms)

- This pattern shows typical reflexive behaviours.
- It must be bound locally, as in (31b).
- This is not a property of the expression as a whole but one of *sendiri* alone.
- (31) a. Ali<sub>i</sub> kata Siti<sub>j</sub> selalu memuji diri-nya<sub>i/j/k</sub>. (= (17)) Ali say Siti always praise DIRI-3 'Ali says Siti always praises him/her/herself.' (reflexive and non-reflexive)
  b. Ali<sub>i</sub> kata Siti<sub>j</sub> selalu memuji diri-nya<sub>\*i/j/\*k</sub> sendiri.
  - Ali say Siti always praise DIRI own DIRI-3 own 'Ali says Siti always praises \*him/herself/\*her.' (reflexive only)
  - The effect of *sendiri* is especially notable in *diri sendiri*.
  - While *diri* alone carries a generic meaning, *diri sendiri* does not, giving rise to the distributional contrast between (32a) and (32b).
    - (32a): *pro* unconstrained  $\rightarrow$  generic meaning
    - (32b): *pro* restricted by *sendiri* to a specific value, namely *sendiri*'s antecedent  $\rightarrow$  reflexive

<sup>&</sup>lt;sup>10</sup>Some languages also allow both interpretive possibilities for non-possessive pronominals. These languages include Old English (e.g. van Gelderen 2000; König and Siemund 2000; Keenan 2002), Madurese (Davies 2008), Jambi (Mudung Darat and Tanjung Raden dialects) (Cole et al. 2010), Palembangese (Kartono 2013).

<sup>&</sup>lt;sup>11</sup>Gil refers to the function of *sendiri* as 'conjunctive operator'. Moreover, the specific formulation of it presented below differs from Gil's.

- (32) a. \*Siti mengambil gambar diri pro. (= (14b))
   Siti take picture DIRI
   For: 'Siti took a picture of herself.'
  - b. Ali<sub>i</sub> kata Siti<sub>j</sub> mengambil gambar **diri**  $pro_{*i/j/*k}$  sendiri. Ali say Siti take picture DIRI own 'Ali said Siti took a picture of herself.'

#### **Counterexample?**

- Kroeger (forthcoming) points out cases where '*diri* + pronoun + *sendiri*' is possible in a subject position, where it cannot be bound locally.
- If the present analysis is on the right track, this has to do with *sendiri*. Future research is needed about *sendiri* in the subject position.
- (33) Kalau **diri-nya sendiri** tidak pandai di-hormati apatah diri orang lain! if DIRI-3 own not know.how PASS-respect what DIRI person other 'If one does not know how to respect one's own self, what more other people?' (lit: 'If one's own self is not able to be respected, what more other people?')

(http://bersahajaa.blogspot.com/2012/06/ pedihnya-air-muka-nizar-jamaluddin.html, cited in Kroeger (forthcoming))

# 6 Conclusion

- This paper has shown that a compositional analysis of Malay anaphoric expressions is not only possible but is empirically more desirable than a non-compositional analysis, as it can account for a wider range of anaphoric expressions in a systematic manner.
- The complex anaphoric expressions comprising 'body' + pronoun in some related languages are known to behave similarly to '*diri* + pronoun' in Malay. These languages include Malagasy (Paul 2004), Madurese (Davies 2008), Jambi (Cole et al. 2010; Kartono 2013), Javanese and Palembangese (Kartono 2013).
  - The proposed analysis: extends to these languages straightforwardly
  - Non-compositional analyses: unclear why the relevant binding properties are associated with 'body' + pronoun, but not with other forms, and why the association is consistent across languages
- In fact, Paul (2004) suggests a compositional analysis for *ny tenany* in Malagasy. This paper has developed her basic idea into a more complete and plausible hypothesis.

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