Usage of Indonesian possessive verbal predicates:
A statistical analysis based on questionnaire and storytelling surveys[1]

David MOELJADI

davidmoeljadi@yahoo.com

1. Overview of Indonesian

Indonesian, which is called *bahasa Indonesia* by its speakers, is classified as a Malayic language of Malayo-Polynesian branch of Austronesian language family (Austronesian > Malayo-Polynesian > Malayo-Sumbawan > North and East > Malayic > Malay > Indonesian) (Lewis ed. 2009). It is spoken mainly in the Republic of Indonesia, as the sole official and national language and as the common language for hundreds of ethnic groups living there (Alwi et al. 2000: 1-2). In Indonesia 22.8 million people speak Indonesian as their first language, while more than 140 million speak it as their second language. It is over 80% cognate with Standard Malay, which is spoken in Malaysia, Brunei, and Singapore (Lewis ed. 2009). Indonesian is an agglutinative language with a rich affixation system, including a variety of prefixes, suffixes, circumfixes, and reduplication. The basic word order is SVO. In general, grammatical relations are only distinguished in terms of word order.

Indonesian is a diglossic language (Alwi et al. 2000: 10-11, Sneddon 2006: 3-4). The high variety of Indonesian, also called *bahasa resmi* 'official language' or *bahasa baku* 'standard language', is based on Riau Malay of northeast Sumatra (Alwi et al. 2000: 12, 15). It is the language of government, law, administration, formal situations (such as speeches and lectures), mass media, literature, and education. In contrast, the low variety, also called *bahasa informal* 'informal language' or *bahasa takbaku* 'non-standard language', is based on the colloquial variety in Jakarta, the capital city of Indonesia (Sneddon 2006). It is the language of everyday communication between Indonesians. However, there is no clear dividing line exists between the high and the low varieties of Indonesian. There are intermediate forms, associated with semi-formal context, between the two varieties (Sneddon 2006: 6-7). The present paper deals with both the high and the low varieties of Indonesian.

2. Basic features of possession

Possession belongs to the class of cognitive entities known as 'relations' (Stassen 2009: 11). A prototypical case of possession basically has two entities that take part in and correlate each other, i.e. a possessor and a possessed item, the latter of which may also be called a possessee or a possessum. Normally the possessor dominates or exerts control over the possessee and has a higher status than the possessee.

There are mainly two ways to express possession (Heine 1997: 25-29, Stassen 2009: 26-28): one

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is expressed within a noun phrase (attributive/adnominal possession), e.g. 'John's car', 'the door of the cabin'; the other is expressed through a 'predicative' possessive construction, e.g. 'John has a car', 'this car belongs to John', 'this car is John's'. Furthermore, the predicative possessive construction can be divided into two constructions. Heine (1997: 29-33) calls these constructions as 'have-construction' and 'belong-construction', while Stassen (2009: 28-30) calls these constructions as 'indefinite possession' and 'definite possession'. The present paper deals only with 'have-construction'.

Many languages classify the possessee into two groups, i.e. inalienable and alienable (Dixon 2010: 311, Heine 1997: 10). Generally body parts and kinship terms form the core of inalienable possession. On the other hand, alienable possession indicates 'ownership' in the narrow judicial sense and it is the concept that is intuitively regarded as the 'prototypical' case of possession (Stassen 2009: 16, Heine 1997: 40-41). Dixon (2010: 286) and Heine (1997: 12-14, 172) observed that a relationship which is semantically close, such as inalienable possession, is likely to employ a simpler or tighter grammatical marking or a closer syntactic association between possessor and possessee than one which is semantically neutral, such as alienable possession. Dixon (2010: 282-285) divides the possessees as follows: ownership (alienables), whole-part relationship (which contains external body parts, internal body parts, genitalia, bodily fluids, parts of animals, parts of plants, and parts of artefacts and other objects), kinship relationship (which contains blood/consanguinal relationship and affinal relationship), attributes, orientation/location, and association.

3. Previous studies

I mainly refer to Hopper (1972), Alieva (1992), and Moeljadi (2010) for previous studies of possessive verbal predicates in Indonesian.

Hopper (1972: 137-140) states that in formal written Indonesian, *mempunyai* has come into general use which corresponds in most usages to English *have* in the sense of ' to own' or 'to possess'. The colloquial equivalent of *mempunyai*, i.e. *punya*, serves as a general equivalent of Western *have*-like[2] verbs. *Ada* is said to bear the same relation to *punya*, as *have* does to *own* in English. However, the possessive use of *ada* is not considered acceptable by all speakers.

Alieva (1992: 15-19) mentions that Malay[3] verbs such as –*punyai* 'to have' and –*miliki* 'to have, to possess' are special possessive verbs with their proper voice forms, but all of them belong to modern educated speech and are secondary in origin, i.e. they are originally not indigenous Malay words. *Punya*, which is common in everyday speech, is not primary either. Instead of clauses with a lexeme 'to have', the following two synthetic clause models –the one with pronominal clitics, and the other with verb-deriving prefixes– can be considered as the primary forms (originally Malay) and the basis of possessivity in Malay:

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[2] In Western (European) languages, possessive verbal predicate is encoded by way of a *have*-verb (to be found in the Germanic, Romance, Baltic subfamilies, and also in West and South Slavonic, Modern Greek, Albanian, and Armenian) or by a *be*-verb (Celtic, East Slavonic, also in Estonian, Latvian, Hungarian, and Finnish). Polish, Ukrainian, and Belorussian are said to represent a transitional stage from *be*-verb to *have*-verb (Stassen 2009: 8, Heine 1997: 211).

[3] Alieva (1992) does not mention that she also deals with Indonesian possessive verbs in her paper. However, I consider that the Malay verbs in Alieva (1992) are relevant to our discussion in this paper.

1. real topic clauses with *ada* + possessive noun phrase. In this clause, a possessor noun phrase in the initial position is cross-referenced by a pronominal enclitic and the possessive meaning disappears from *ada*, being expressed in the possessive noun phrase, as in (3-1).

(3-1) Rumah   ini   **ada**   beranda=**nya**[4].
　　　　house   this   EXIST   verandah=nya
　　　　'This house has its verandah.' (Alieva 1992: 16)

2. clauses with predicates expressed by *ber-* verbs (also *ber-...-kan* verbs) are a real and original device for rendering the meaning 'to have, to possess', but in a peculiar, synthetic form. The relation of possession and the possessed object are both expressed by one and the same word. For instance, in (3-2) 'to have a basis' is expressed by one word as **ber-***dasar*, while using possessive verbs or the existential verb *ada*, it is expressed by two words, i.e. **memiliki** *dasar*, **mempunyai** *dasar*, **punya** *dasar*, **ada** *dasar*, and **ada** *dasar=**nya***.

(3-2) Pendapat=nya   tidak   **ber-**dasar.
　　　　opinion=nya   NEG   ber-basis
　　　　'His opinion has no basis.' (Sneddon 1996: 111)

Alieva (1992: 19) also notes that these two kinds of clauses are prevalent in texts, while the special possessive verbs, though rather differentiated in meaning and capable of voice alternation, are used only rarely. In counts of various texts of 120 sentences each there was one use of *punya* or *mempunyai*, but from five to seven instances of *ber-* verbs with possessive meaning.

　　　Concerning clauses with *ada*, Alieva (1992: 15-16) states that the verb *ada* 'to be' as in example 3-3 can itself express the meaning 'to have' (but not 'to own', 'to possess'). In an *ada* sentence, possession is expressed through the idea of existence, and the meaning 'to have' is secondary to the meaning 'to be, to exist'. An *Ada* sentence can be analyzed as having possessor topics in the initial position (possessors in focus) that can be omitted without the effect of ellipsis. Thus, *ada* is more likely related to the following noun phrase which acts as a grammatical subject (see example 3-3 and 3-4).

(3-3) Rumah   ini   **ada**   beranda   lebar.
　　　　house   this   EXIST   verandah wide
　　　　'This house has a wide verandah.' (Alieva 1992: 15)

(3-4) **Ada**   beranda   lebar.
　　　　EXIST   verandah wide
　　　　'There is a wide verandah.' (Alieva 1992: 16)

　　　In Moeljadi (2010: 34), I found that there are eight possessive verbal predicate constructions in Indonesian, which can be classified into three groups based on the form of the main verb as follows (X

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[4] The enclitic =*nya* is originally derived from *ia* '3SG' and retains the original function as the third person singular pronominal enclitic.

represents 'possessor', Y represents 'possessee' or 'possessum', and Z represents a complement):

I. Constructions with possessive verbs: (1) X *memiliki* Y, (2) X *mempunyai* Y, (3) X *punya* Y

II. Constructions with the existential verb *ada*: (4) X *ada* Y, (5) X *ada* Y=*nya*

III. Constructions with denominal affixes: (6) X *ber*-Y, (7) X *ber*-Y-*kan* Z, (8) X Y-*an*

Based on my intuition, I concluded that the register (i.e. the high and the low varieties of Indonesian), and the '(in)alienability' notion (see Table 1 and Table 2) play important roles in the encoding process (Moeljadi 2010: 93-102). In addition, I hypothesized that the enclitic =*nya* in X *ada* Y=*nya* functions as an 'inalienability marker'. However, it has later become clear that the '(in)alienability' notion is merely useful to explain the difference between X *ada* Y and X *ada* Y=*nya*. Instead of '(in)alienability', a new criterion is needed to explain why different constructions choose different possessees.

Table 1. Result of analysis of possessive verbal predicate constructions in Indonesian (Moeljadi 2010: 93)

Parameters / Constructions		Possessive predicate		Possessee (Y)		
		High/ Low variety	Passivization and imperative	Pers.Pron, Pers.Proper Names	Alienable (see Table 3)	Inalienable (see Table 3)
possessive verbs	X memiliki Y	H	+	+	+	+
	X mempunyai Y					
	X punya Y	L				
existential verb *ada*	X ada Y	L	−	−	+	−
	X ada Y=nya				−	−
denominal affixes	X ber-Y	H			+	+
	X ber-Y-kan Z					
	X Y-an	L			−	

Table 2. The relation between possessee (Y) and (in)alienability in Indonesian (extracted from Moeljadi 2010: 98-99)

ALIENABLE			INALIENABLE			
	X memiliki Y, X mempunyai Y, X punya Y					
			X ber-Y, X ber-Y-kan Z			
X ada Y			X ada Y=nya		X Y-an	
Event, Temporary property	Social relation, Belongings (movables), Nonspecific referents	Acquired attribute, Private property (immovables), Kinship roles	Body-parts, Part-whole relationship, General nature	Substance attached to a narrow area	Substance attached to a wide area	Clothes etc. worn on the body
acara 'event'	*teman* 'friend'	*hak* 'right'	*mata* 'eye'	*karat* 'rust'		*pakaian* 'clothes'
rapat 'meeting'	*buku* 'book'	*ibu* 'mother'	*atap* 'roof'	*uban* 'gray hair'		*kacamata* 'glasses'
tes 'test'	*anjing* 'dog'	*rumah* 'house'	*nama* 'name'	*jerawat* 'pimples'		*senjata* 'weapon'
demam 'fever'	*sesuatu* 'something'	*uang* 'money'	*khasiat* 'efficacy'	*janggut* 'beard'		*selimut* 'blanket'

4. Overview of possessive verbal predicates in Indonesian

For the overview of possessive verbal predicates in Indonesian, I mainly refer to Moeljadi (2010) since it deals with the largest number of possessive verbal predicates.

4.1 Constructions with possessive verbs *memiliki*, *mempunyai*, and *punya*

Possessive verbs *memiliki* and *mempunyai* are derived from the roots *milik*[5] and *punya*[6] respectively, with the actor voice prefix *me-* and the suffix *-i* attached to the roots. The applicative suffix *-i* with a nominal base generally forms transitive verbs which has many meanings such as 'to put the nominal base to the object' (Alwi et al. 2000: 124) and 'to act as, or to be the nominal base with reference to the object' (Sneddon 1996: 86). As noted in footnote 5, *milik* originally means 'property' or 'possessions'; thus, *milik-i* may have the meaning 'to ascribe the sense of property/possessions to the object mentioned'. In footnote 6, it is noted that *punya* has the original meaning 'master', 'lord', or 'possessor'; *punya-i* may have the original meaning 'to be the possessor of the object mentioned'.

Possessive verbs *memiliki* and *mempunyai* can be passivized with an undergoer voice prefix *di-* as in example (4-3) and (4-6) and can be changed to imperative with an imperative suffix *-lah* as in (4-4) and (4-7), but there are some syntactic restrictions for *mempunyai*[7]. Personal pronouns and personal proper names can be the direct object in the *memiliki* construction, as in (4-2) but not in the *mempunyai* construction, as in (4-5). The possessive verb *punya* cannot be passivized, and there is no imperative construction with it, as in (4-9). It cannot take personal pronouns or personal proper names as the direct object, as in (4-8).

According to Moeljadi (2010: 45), the possessive verbs *memiliki* and *mempunyai* tend to appear in the high variety of Indonesian, while *punya* tends to appear in the low variety of Indonesian.

(4-1) Dia   ingin **me-milik-i**   tas=ku.   (4-2) Aku   ingin **me-milik-i**=mu,   Indah.
       3SG   want   AV-milik-TR   bag=1SG   1SG   want   AV-milik-TR=2SG
       'S/he wants to possess my bag.' (own data)   'I want to possess you, Indah.' (own data)

(4-3) Enam model   jeans yang harus **di-milik-i**
       six   type   jeans REL   must   UV-milik-TR
       'Six types of jeans which must be owned' (title of an article in *KOMPAS*.com 2009/10/29)

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[5] The word *milik* comes from the Arabic word *m-l-k* (*milk*), and has the sense 'property' (Jones 1978: 57, xxxi). Wehr (1979: 1082) notes that the word *milk* has the sense 'property, possessions, goods and chattels, fortune, wealth; estate; landed property, real estate' and the plural form *amlāk* has the sense 'possessions (colonies); lands, landed property, estates'.

[6] The word *punya* originally consists of (*em*)*pu* and =*nya* and is morphologically complex. The morpheme (*em*)*pu* is from the old Javanese word *empu* (*mpu, ampu, pu*) which has the main meaning 'distinguished person, "master", "lord"; often, but by no means exclusively, of religious persons (brahmans and others) and is attached to a proper or categorical noun '"sir", "lord", "master", "the honorable or reverend"' (Zoetmulder 1982: 1149). It is also glossed as 'ancient title for scholars, poets, outstanding artists, master craftsmen' (Horne 1974: 168).

[7] The possessive verb *me-miliki* alternates with *di-miliki* in passive and with *miliki-lah* in imperative. The possessive verb *mem-punyai* is changed to *di-punyai* in passive and to *punyai-lah* in imperative. However, while all speakers accept *di-miliki* and *miliki-lah*, a few speakers do not accept *di-punyai* and some speakers do not accept *punyai-lah*.

(4-4) **Milik-i**-lah   anak   yang   banyak.
       milik-TR-IMP   child   REL   many
       'Have many children.' (*Lagu kesunyian di penghujung hari* in *KOMPAS*.com 2009/08/29)

(4-5) *Orang   gila   itu   ingin   **mem-punya-i**=ku.
        person   crazy   that   want   AV-punya-TR=1SG
        'That crazy person wants to possess me.' (own data)

(4-6) Hak   untuk meng-ekspresi-kan   diri   **di-punya-i**   oleh   setiap orang.
       right   to   AV-expression-APP   self   UV-punya-TR   by   every person
       'The right to express oneself is possesed by everyone.' (own data, based on Sneddon 2006: 208)

(4-7) ?**Punya-i**-lah   impian![8]   (4-8) *Gua pingin[9]   **punya**   elu.
       punya-TR-IMP dream   1SG   want   punya   2SG
       'Have a dream!' (own data)   'I want to possess you.' (own data)

(4-9) ***Punya**-lah   impian!
       punya-IMP dream (own data)

4.2   Constructions with the existential verb *ada*

The existential verb *ada*, which functions as the predicate in the existential (X *ada* 'X exists', *ada* X *di* Y 'there is X in Y') and locative constructions (X *ada di* Y 'X is in Y'), also functions as the predicate in the possessive verbal predicate constructions (X *ada* Y, X *ada* Y=*nya*). These constructions (X *ada* Y, X *ada* Y=*nya*) do not have passive and imperative counterparts and cannot take personal pronouns and/or proper names as Y. Both constructions tend to appear in the low variety of Indonesian (Moeljadi 2010: 58).

(4-10) Saya   **ada**   uang   untuk mem-beli   ini.   (4-11) Lu   **ada**   kunci=**nya**?
        1SG   EXIST   moneyto   AV-buy   this   2SG   EXIST   key=nya
        'I have money to buy this.' (Alieva 1992: 15)   'Do you have the key?' (own data)

(4-12) (while looking at a photo which has been modified)
        Kok   gua   kagak **ada**   mata=**nya**   di   foto   ini?
        dp   1SG   NEG   EXIST   eye=nya   LOC   photo this
        'Why don't I have eyes in this photo?' (own data)

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[8] In Moeljadi (2010), I regarded that this imperative sentence was acceptable but later I found that some speakers do not accept such imperative sentences with *punyailah*. A survey for this variation needs to be done.
[9] The word *pingin* is the low variant of *ingin* 'want'.

My analysis in Moeljadi (2010) was that the possessees in X *ada* Y are alienable and the possessees in X *ada* Y=*nya* are inalienable, i.e. body-parts, entities in the part-whole relationship (including entities [part] attached to a narrow area [whole]), and the general nature of entities (see Table 2). Thus, I hypothesized that =*nya* functions as an 'inalienability marker'. However, it has been later found that such distinction is not significant to differentiate between X *ada* Y and X *ada* Y=*nya*. An alternative argument will be proposed in this paper.

4.3   Constructions with denominal verbal affixes *ber-*, *ber-...-kan*, and *-an*

The prefix *ber-*, the circumfix *ber-...-kan*, and the suffix *-an* denominalize Y so that Y becomes a verbal predicate in each construction. Stassen (2009: 137, 189) calls this phenomenon as 'predicativization' and explains that it is a process which results in a reanalysis of the categorical and syntactic status of the phrase which contains the possessee. This predicativized possessee phrase is regarded as essentially 'property-indicating' or 'adjectival'. Stassen (2009: 176) also remarks that employing stative morphology on nouns can create 'possessive adjectives', just as the case of the English morphology, in which the perfect participle formation, when applied to nouns, creates adjectives such as *moneyed*, *red-nosed*, *wide-eyed* etc.

None of these three constructions can be passivized. Alwi et al. (2000: 121) notes that the suffix *-kan* with a nominal base derives a verb which means 'to regard something as stated/expressed by the nominal base'. Thus, the suffixal part *-kan* in the X *ber*-Y-*kan* Z may have the meaning 'to regard Z as Y'; the construction, on the whole, means 'X has Z as Y' (Sneddon 1996: 110). It triggers the presence of an obligatory noun complement (Z), as in example (4-15) and (4-16). As for the X *ber*-Y construction it may take an optional noun complement which specifies Y, as in example (4-13) and (4-14). Both X *ber*-Y and X *ber*-Y-*kan* Z tend to appear in the high variety of Indonesian, while X Y-*an* tends to appear in the low variety of Indonesian (Moeljadi 2010: 77).

(4-13) Dia   sudah **ber-**istri.
      3SG   PERF ber-wife
      'He already has a wife.'
      (Alwi et al. 2000: 142)

(4-14) Dia   sudah **ber-**istri orang Minang.
      3SG   PERF ber-wife person
      'He already has a Minang person as his wife.'
      (Alwi et al. 2000: 142)

(4-15) *Dia   sudah **ber-**istri-**kan**.
      3SG   PERF ber-wife-APP
      (Alwi et al. 2000: 142)

(4-16) Dia   sudah **ber-**istri-**kan**   orang Minang.
      3GS   PERF ber-wife-APP   person
      'He already has a Minang person as his wife.'
      (Alwi et al. 2000: 142)

According to Alwi et al. (2000: 139) and Sneddon (1996: 62-63), the prefix *ber-* with a nominal base has one of the following meanings:

1. 'to have', e.g. *ber-atap* 'to have a roof' (*atap* 'roof'), *ber-istri* 'to have a wife' (*istri* 'wife')
2. 'to use, to wear, to operate', e.g. *ber-sepeda* 'to ride a bicycle' (*sepeda* 'bicycle'), *ber-pakaian* 'to wear clothes' (*pakaian* 'clothes')

3. 'to produce', e.g. *ber-telur* 'to lay eggs, to spawn' (*telur* 'egg'), *ber-keringat* 'to sweat' (*keringat* 'sweat')

4. 'reciprocal, indicating that two people stand in the same relationship to each other', e.g. *ber-teman* 'to be the friend of each other' (*teman* 'friend'), *ber-tetangga* 'to be the neighbour of each other' (*tetangga* 'neighbour')

5. 'to engange in the activity specified by the base', e.g. *ber-piknik* 'to picnic' (*piknik* 'picnic'), *ber-perang* 'to wage war' (*perang* 'war')

  In this paper, only examples with the first meaning, i.e. 'to have', are discussed.

  Regarding the X Y-*an* construction, Sneddon (1996: 53) states that from some noun bases –*an* derives adjectives, meaning 'having many [base], containing many [base]' or 'suffering from [base]', as in example (4-17) and (4-18).

(4-17) Orang itu uban-**an**.	(4-18) Pipi lu jerawat-**an**.
person that grey.hair-an	cheek 2SG pimple-an
'That person is grey-haired.' (own data)	'Your cheek is pimpled.', (own data)
(lit: 'That person has lots of grey hair.')	'Your cheek is covered with many pimples.'

5. Questionnaire survey for clustering possessive verbal predicates

5.1 Questionnaire survey

  The survey consisted of interviews, which were held in Tokyo in June 2010 (abbreviated as 2010a in Table 3), in Malang, East Java in September 2010 (abbreviated as 2010b in Table 3), and in Jakarta in March 2011. The consultants who participated in the interviews in 2010 were from different backgrounds (as for age, place of birth, and mother tongue) while all the consultants who participated in the interviews in March 2011 were mostly of the same age and natives of Jakarta. 'Mother language' in Table 3 refers to the language used for communication at home, particularly for communicating with parents.

  The consultants were asked to judge the acceptability of possessive verbal predicates in combination with various possessees and possessors. Sample sentences to be judged were made, using forty-one nouns as possessees and various nouns, including personal pronouns, as possessors. They were combined with eight possessive verbal constructions mentioned above. Forty-one nouns are chosen as possessees, as follows: *mata* 'eye', *jantung* 'heart', *ekor* 'tail', *bunga* 'flower', *dinding* 'wall', *ibu* 'mother', *kakek* 'grandfather', *mertua* 'father-in-law/mother-in-law', *kakak* 'elder sibling', *adik* 'younger sibling', *suami/istri* 'husband/wife', *anak* 'child', *hak* 'right', *nama* 'name', *khasiat* 'efficacy', *karat* 'rust', *uban* 'gray hair', *jerawat* 'pimples', *janggut/jenggot* 'beard', *keringat* 'sweat', *pakaian* 'clothes', *kacamata* 'glasses', *senjata* 'weapon', *selimut* 'blanket', *buku* 'book', *rumah* 'house', *uang* 'money', *anjing* 'dog', *sesuatu* 'something', *teman* 'friend', *pacar* 'girlfriend/boyfriend', *dokter pribadi* 'personal doctor', *penyakit* 'disease', *flu* 'flu', *demam* 'fever', *pertanyaan* 'question', *acara* 'event', *rapat* 'meeting', *pesta* 'party', *tes* 'test', *bagian dalam yang kosong* 'empty space'.

  The reasons why I chose those forty-one nouns as possessees are mainly based on the division of possessees made by Dixon (2010) and Moeljadi (2010) (see Section 2, Section 3, and Table 2 above).

Table 3. Backgrounds of the consultants in the questionnaire survey

Consultant	Sex	Age	Place of birth	Mother language	Time of interview	Place of interview
A	Male	21	Jakarta	Indonesian, Hokkien mixed	2010a	Tokyo
B	Male	35	Long Iram, East Kalimantan	Indonesian, Banjar	2010a	Tokyo
C	Female	23	Jakarta	Indonesian	2010a	Tokyo
D	Male	23	Malang, East Java	Peranakan	2010b	Malang
E	Male	16	Balikpapan, East Kalimantan	Indonesian	2010b	Malang
F	Female	17	Pasuruan, East Java	Javanese	2010b	Malang
G	Female	16	Surabaya, East Java	Peranakan	2010b	Malang
H	Female	17	Kediri, East Java	Javanese, Indonesian	2010b	Malang
I	Female	16	Bogor, West Java	Indonesian, Banjar	2010b	Malang
J	Female	21	Jakarta	Indonesian	2011	Jakarta
K	Female	21	Jakarta	Indonesian, Hakka	2011	Jakarta
L	Male	22	Jakarta	Indonesian	2011	Jakarta
M	Female	21	Jakarta	Indonesian, Hakka mixed	2011	Jakarta
N	Female	21	Jakarta	Indonesian	2011	Jakarta
O	Female	20	Jakarta	Indonesian, Sundanese mixed	2011	Jakarta
P	Female	21	Jakarta	Indonesian, Cantonese mixed	2011	Jakarta
Q	Female	20	Jakarta	Indonesian, English	2011	Jakarta
R	Female	21	Jakarta	Indonesian	2011	Jakarta

The personal pronouns and some definite expressions are chosen as possessors:

(i) Personal pronouns: *saya/aku/gua/gue* '1SG', *Anda/kamu/lu* '2SG', *dia* '3SG'

　　　　　　　kami '1PL.Excl'/*kita* '1PL.Incl', *kalian* '2PL', *mereka* '3PL'

(ii) Definite expressions: *rumah ini/itu* 'this/that house' for *dinding* 'wall', *obat ini/itu* 'this/that medicine' for *khasiat* 'efficacy', *besi ini/itu* 'this/that steel' for *karat* 'rust', *binatang ini/itu* 'this/that animal' for *jantung* 'heart' and *ekor* 'tail', *tanaman ini/itu* 'this/that plant' for *bunga* 'flower', *kotak ini/itu* 'this/that box' for *bagian dalam yang kosong* 'empty space'.

I consider the possessor expressions in (ii) to be in the third person. If they are considered acceptable in a certain construction, I judge that the first and the second personal pronouns are also acceptable possessors in that construction, considering it to be a metaphorical extention of a non-human object to a human possessor. Regarding this, the acceptability was also approved by some of my consultants, who shared the same judgement with me.

The examples of the combinations of various possessees and possessors in the possessive verbal predicative sentences are as follows: *saya* '1SG' ***memiliki*** *buku* 'book', *Anda* '2SG' ***memiliki*** *buku, dia* '3SG' ***memiliki*** *buku, kami* '1PL.Excl' ***memiliki*** *buku, kalian* '2PL' ***memiliki*** *buku, mereka* '3PL' ***memiliki*** *buku, saya* ***mempunyai*** *buku, Anda* ***mempunyai*** *buku, dia* ***mempunyai*** *buku, kami* ***mempunyai*** *buku, kalian* ***mempunyai*** *buku, mereka* ***mempunyai*** *buku, gua* '1SG' ***punya*** *buku, kamu* '2SG' ***punya*** *buku, dia* ***punya*** *buku, kita* '1PL.Incl' ***punya*** *buku, kalian* ***punya*** *buku, mereka* ***punya*** *buku, aku* '1SG'

ada *buku, kamu* **ada** *buku**nya**, dia* **ber***buku, kalian* **berbuku***kan buku matematika* 'mathematics', *mereka* *bukuan, gue* '1SG' **punya** *teman* 'friend', *besi ini* 'this steel' **ada** *karat* 'rust', etc.

The total number of the combinations is $6 \times 8 \times 41$ or 1968, which is the result of combining six possessors, eight possessive verbal predicates, and forty-one possessees. In order to avoid meaningless sentences, I sometimes added temporal or aspect markers, or modified the possessee nouns. For instance, *saya* <u>*masih*</u> **memiliki** *ibu* 'I <u>still</u> have a mother', *dia* <u>*sudah tidak*</u> **punya** *kakek* 's/he does <u>not</u> have a grandfather <u>anymore</u>', *kalian* **ber-***mata* <u>*sipit*</u> 'you all have <u>narrow</u> eyes'.

Eighteen consultants were asked to answer whether each of the sentences with different combinations of a possessee, a possessor, and a possessive verbal predicate is (i) usual and acceptable, (ii) slightly unusual but still acceptable, or (iii) unusual and strange, i.e. unacceptable.

5.2   Cluster analysis

Each sentence mentioned in 3.2.2 was given values as follows: one point if it is considered to be usual, 0.5 points if it is slightly unusual, and zero if it is unusual and strange. The data (values) were then evaluated, using the cluster analysis (Nagata 2001: 174-179). Each construction was compared to other seven constructions. The Eucledian distance was calculated as the index of the similarity or the 'distance' between each construction and the others. For example, if, according to one consultant, *saya* '1SG' *memiliki teman* 'friend' is acceptable (1 point), *gua* '1SG' *punya teman* is unacceptable (0 point), *saya memiliki buku* 'book' is acceptable (1 point), and *gue* '1SG' *punya buku* is acceptable (1 point), the Euclidean distance between *memiliki* and *punya* is one, as follows: $\sqrt{(1-0)^2 + (1-1)^2} = 1$.

In a hypothetical case in which all the combinations are judged either acceptable or unacceptable (i.e. every sentence has the same value), the Euclidean distance is at its minimum, i.e. $\sqrt{0}$, and thus zero. To the contrary, if all the combinations of possessors and possessees in a certain possessive construction are acceptable, and all the corresponding combinations in another construction are entirely unacceptable, we may get the maximal Euclidean distance as follows: $\sqrt{18 \times 6 \times 41}$ where eighteen is the total of the consultants, six is the number of the possessors, and forty-one of the possessees. Therefore, the range of the Euclidean distance (*d*) between two constructions is: $\sqrt{0} \leq d \leq \sqrt{18 \times 6 \times 41}$ or $\sqrt{0} \leq d \leq \sqrt{4428}$, i.e. the value of *d* varies from 0 to 66.54.

5.3   Results and discussion

The Euclidean distance for every pair of constructions was calculated (see Table 4) and finally the constructions were clustered into groups, as in Figure 1.

Regarding the clustering of possessors, in the interviews in 2010, I saw no difference between singular and plural personal pronouns as possessors in possessive predicate constructions. However, in the interviews in 2011, I realized a slight difference between them and I applied cluster analysis to the data. I would like to mention in passing that who or what the possessor is, does not affect the acceptability of sentences in the possessive predicate construction. I found no reason for differentiating possessors in singular from those in plural, as well as for dividing possessors expressed by the first person pronouns from those expressed by the second or third person pronouns (Figure 2).

Table 4. Distance between constructions

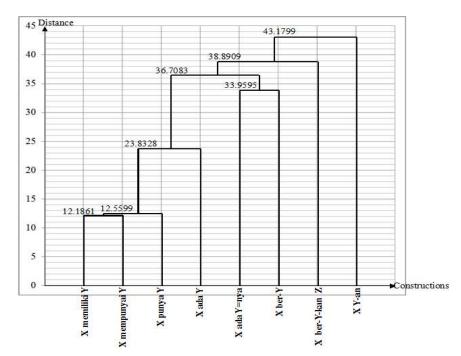|	X me-miliki Y	X mem-punyai Y	X punya Y	X ada Y	X ada Y=nya	X ber-Y	X ber-Y-kan Z
X *mempunyai* Y	12.1861						
X *punya* Y	14.2741	12.5599					
X *ada* Y	25.1247	25.0948	23.8328				
X *ada* Y=*nya*	37.6962	37.9605	38.3960	41.5000			
X *ber*-Y	36.9425	36.7185	36.7083	41.1096	33.9595		
X *ber*-Y-*kan* Z	43.8292	43.7150	44.6794	45.1968	38.8909	38.9198	
X Y-*an*	56.8177	56.8221	56.8551	56.4225	46.7039	43.1799	46.8748

Figure 1. A dendrogram illustrating the clustering of possessive verbal predicates (see Table 4)
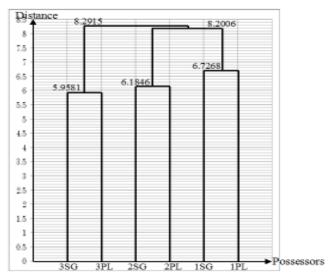

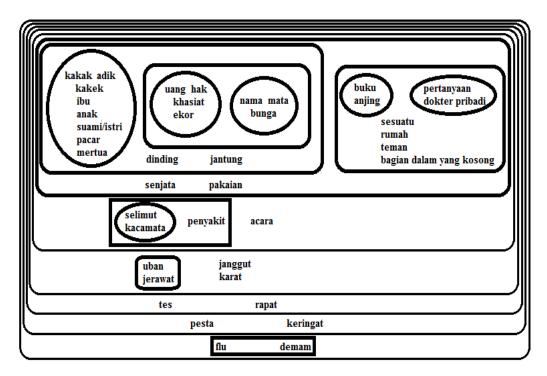**Figure 2. A dendrogram illustrating the clustering of possessors**
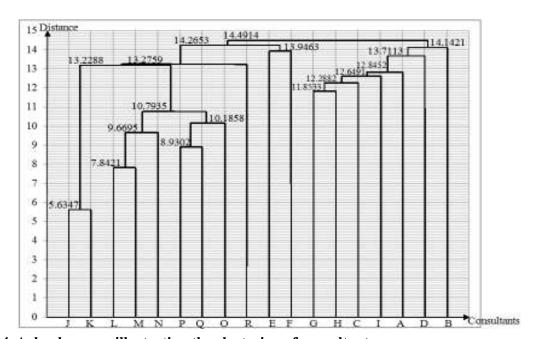
11

Figure 3. The clustering of possessees

Figure 4. A dendrogram illustrating the clustering of consultants

The overall data obtained from the consultants' judgements and the findings in the cluster analysis lead to the following four results.

1) The hypothesis proposed in Moeljadi (2010), arguing that =*nya* functions as the 'inalienability' marker, is not the case, though it is attested that the construction X *ada* Y=*nya* forms a subclass of the construction X *ada* Y. Possesseess (Y) can be divided into three groups according to

their distribution in the constructions X *ada* Y and X *ada* Y=*nya*. In the case of the first group of possessees, Y=*nya* functions as a definite expression and it must have the antecedent within a context. For example,

(5-1) Dia **ada** buku.
 3SG EXIST book
 'S/he has a book.' (own data)

(5-2) Dia **ada** buku=**nya**.
 3SG EXIST book=nya
 'S/he has the book.' (own data)

Included in this group are such possessees (Y) as: *teman* 'friend', *buku* 'book', *anjing* 'dog', *rumah* 'house', *uang* 'money', *pakaian* 'clothes', *kacamata* 'glasses', *senjata* 'weapon', and *selimut* 'blanket'.

In the case of the second group of possessees, Y=*nya* may appear without a context. For example,

(5-3) Gue udah **ada** istri.
 1SG PERF EXIST wife
 'I already have a wife.' (own data)

(5-4) Gue udah **ada** istri=**nya**.
 1SG PERF EXIST wife=nya
 'I already have a wife.' (own data)

Included in this group are such possessees (Y) as: *mata* 'eye', *dinding* 'wall', *nama* 'name', *khasiat* 'efficacy', *karat* 'rust', *uban* 'gray hair', *jerawat* 'pimples', *janggut/jenggot* 'beard', *penyakit* 'disease', *jantung* 'heart', *ekor* 'tail', *bunga* 'flower', *ibu* 'mother', *kakek* 'grandfather', *mertua* 'father-in-law/mother-in-law', *kakak* 'elder brother/sister', *adik* 'younger brother/sister', *suami/istri* 'husband/wife', *pacar* 'girlfriend/boyfriend', *anak* 'child', *dokter pribadi* 'personal doctor', and *bagian dalam yang kosong* 'empty space'.

In the case of the third group of possessees, Y=*nya* is not acceptable, whereas the construction X *ada* Y is acceptable, as follows:

(5-5) Mereka **ada** rapat.
 3PL EXIST meeting
 'They have a meeting.' (own data)

(5-6) *Mereka **ada** rapat=**nya**.
 3PL EXIST meeting=nya

Included in this group are possessees (Y) such as: *acara* 'event', *rapat* 'meeting', *pesta* 'party', *tes* 'test', *demam* 'fever', *sesuatu* 'something', *pertanyaan* 'question', *keringat* 'sweat', and *flu* 'flu'.

Based on the fact that the construction X *ada* Y can accept wider range of possessees than the construction X *ada* Y=*nya*, we may conclude that the latter is a subclass of the former. If we look at the semantic characteristics of possessees of each group, it is conceivable that the first group possessees are generally alienably possessable. Most of possessees in the second group seem to be entitities of typical inalienable possession. As for the third group, however, it is difficult to find a common semantic characteristic, though their meanings may imply a certain relation to events or phenomena. Judging from such distribution of possessees, it is evident that the enclitic =*nya* does not function as an inalienability marker. Therefore, I have to admit that the hypothesis of Moeljadi (2010), arguing that =*nya* functions as an inalienability marker, is not correct.

2) In spite of their formal similarity, the constructions X *ber*-Y and X *ber*-Y-*kan* Z differ from each other, because the former accommodates many nouns as the possessee (Y), whereas the latter

accepts as Y much fewer nouns, such as *anak* 'child', *pacar* 'girlfriend/boyfriend', *suami/istri* 'husband/wife', *ibu* 'mother', *adik* 'younger brother/sister', *kakak* 'elder brother/sister', *mertua* 'father-in-law/mother-in-law', *kakek* 'grandfather', *ekor* 'tail', *mata* 'eye', and *dinding* 'wall'. Comparing with X *ber*-Y, the number of nouns which are considered to be acceptable to fill the Y position in X *ber*-Y-*kan* Z is very few. The sense of 'possession' in X *ber*-Y-*kan* Z is expressed in the part *ber*-Y-*kan,* but it requires an argument (Z) which is the hyponym or attribute of Y. On the other hand, in the X *ber*-Y construction, Z is an adjunct, as is already shown in section 4. Thus, while *uban* 'grey hair' is acceptable in *saya* (1SG) *ber-uban* 'I have grey hair', it is not acceptable in *saya ber-uban-kan (something),* because it is difficult to assume something to be the hyponym or the attribute of *uban*. Besides, the construction X *ber*-Y-*kan* Z cannot be considered a typical possessive predicate construction, because it requires an extra argument in addition to a possessee. These idiosyncrasies of the construction X *ber*-Y-*kan* Z may be the reflection of the fact that it 'presupposes' a relationship of possession, rather than it 'establishes' one. For instance, if we say *dia sudah **ber**-istri-**kan** orang Minang* (see Example 4-16), we already have in mind that 'he already has a wife'. Generally, a possessive verbal predicate construction establishes, but does not presuppose, a relationship of possession (Dixon 2010: 265).

3) The construction X Y-*an* should be considered a peripheral member of the possessive predicate contruction, because only *jenggot-an* 'to have beards' (*jenggot* 'beard'), *jerawat-an* 'to have pimples' (*jerawat* 'pimples'), *uban-an* 'to have gray hairs' (*uban* 'gray hair'), and *karat-an* 'to have rust' (*karat* 'rust') have the meaning related to possession. Otherwise, X Y-*an* has such a unique meaning and restrictions that it can reasonably be distinguished from a typical possessive verbal predicate construction. Among the forty-one nouns mentioned, the X Y-*an* construction accepts as Y only the following nouns: *pacar* 'girlfriend/boyfriend', *teman* 'friend', *jantung* 'heart', *penyakit* 'disease', *keringat* 'sweat', *selimut* 'blanket', *kacamata* 'glasses', *jenggot* 'beard', *jerawat* 'pimples', *uban* 'gray hair', and *karat* 'rust'. According to the consultants I interviewed, *pacar-an* and *teman-an* have the reciprocal meaning, indicating 'two people stand in the same relationship to each other'. Thus, it is acceptable to say *kita teman-an* 'we (1PL.Incl) are friends', or *gue teman-an sama dia* 'I made friend with her/him', but *gue temanan* 'I made friend', without *sama* [somebody] 'with (somebody)', is unacceptable. *Jantung-an* has a special meaning 'to suffer from heart disease'. *Penyakit-an* means 'to often get sick'. *Keringat-an* means 'to sweat so much'. *Selimut-an* and *kacamata-an* have the meaning 'to wear a blanket' and 'to wear glasses', respectively. Thus, only *jenggot-an*, *jerawat-an*, *uban-an*, and *karat-an* have the meaning related to possession. This is the reason why I regard X Y-*an* as peripheral to the domain of possessives in Indonesian.

So far, we have taken it into account that X *ada* Y=*nya*, X *ber*-Y-*kan* Z, and X Y-*an* are not real possessive verbal constructions. Having excluded X *ada* Y=*nya*, X *ber*-Y-*kan* Z, and X Y-*an* from the possessive verbal constructions, the rest of them, i.e., X *memiliki* Y, X *mempunyai* Y, X *punya* Y, X *ada* Y, and X *ber*-Y can be clustered into two groups: X *memiliki* Y, X *mempunyai* Y, X *punya* Y, X *ada* Y in one group and X *ber*-Y in the other group (see Figure 5).

Each group has its own category of possessee and we can see that X *ber*-Y has a special characteristic and takes a different kind of possessee (see Figure 6 and Figure 7). I regard that this is because the prefix *ber-*, attached to the posssessee, connects the possessor and possessee more directly than possessive verbs and the existential verb do, which intervene between the possessor and possessee. Moreover, the prefix *ber-* plus a possessee has the 'property-indicating' or 'adjectival' sense.
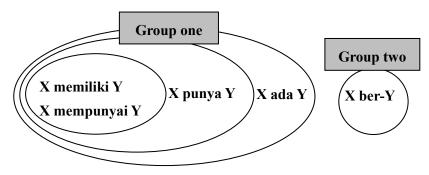

Figure 5. The clustering of X *memiliki* Y, X *mempunyai* Y, X *punya* Y, X *ada* Y, and X *ber*-Y

X *memiliki* Y	+++		++		+
X *mempunyai* Y	+++		++		+
X *punya* Y	+++		++		+
X *ada* Y	+++				+

mata 'eye'	*khasiat* 'efficacy'				
jantung 'heart'	*janggut/jenggot* 'beard'				
ekor 'tail'	*pakaian* 'clothes'				
bunga 'flower'	*kacamata* 'glasses'				
dinding 'wall'	*senjata* 'weapon'				
ibu 'mother'	*selimut* 'blanket'				
kakek 'grandfather'	*buku* 'book'		*karat* 'rust'	*rapat*	*flu* 'flu'
mertua 'father-in-law/	*rumah* 'house'	*acara*	*uban* 'gray	'meeting'	*demam*
mother-in-law'	*uang* 'money'	'event'	hair'	*pesta*	'fever'
kakak 'elder	*anjing* 'dog'	*pertanyaan*	*jerawat*	'party'	*keringat*
brother/sister'	*sesuatu* 'something'	'question'	'pimples'	*tes* 'test'	'sweat'
adik 'younger	*teman* 'friend'				
brother/sister'	*pacar* 'girlfriend/boyfriend'				
suami/istri	*dokter pribadi* 'personal				
'husband/wife'	doctor'				
anak 'child'	*penyakit* 'disease'				
hak 'right'	*bagian dalam yang kosong*				
nama 'name'	'empty space'				

Figure 6. The continuum of possessees in group one (+++: considered acceptable by around 17-18 consultants, ++: considered acceptable by around 11-17 consultants, +: considered acceptable by around 4-11 consultants)

Considered acceptable by 17-18 consultants	Considered acceptable by 14-16 consultants	Considered acceptable by 10-13 consultants	Considered acceptable by 4-9 consultants	Considered acceptable by 0-3 consultants	(not having possessive meaning)
hak 'right' *mata* 'eye' *dinding* 'wall' *khasiat* 'efficacy' *karat* 'rust' *uban* 'gray hair' *jerawat* 'pimples' *janggut* 'beard' *ekor* 'tail' *bunga* 'flower' *suami/istri* 'husband/wife'	*nama* 'name' *penyakit* 'disease' *jantung* 'heart' *uang* 'money'	*ibu* 'mother' *kakek* 'grandfather' *kakak* 'elder brother/sister' *adik* 'younger brother/sister' *anak* 'child'	*mertua* 'father-in-law/ mother-in-law' *pacar* 'girlfriend/ boyfriend' *rumah* 'house' *bagian dalam yang kosong* 'empty space'	*pertanyaan* 'question' *acara* 'event' *rapat* 'meeting' *tes* 'test' *demam* 'fever' *flu* 'flu' *buku* 'book' *anjing* 'dog' *sesuatu* 'something' *dokter pribadi* 'personal doctor'	*pesta* 'party' *teman* 'friend' *pakaian* 'clothes' *kacamata* 'glasses' *senjata* 'weapon' *selimut* 'blanket' *keringat* 'sweat'

Figure 7. The continuum of possessees in group two (X *ber*-Y)

As discussed above, we may conclude that:

1. X *ada* Y=*nya*, X *ber*-Y-*kan* Z, and X Y-*an* cannot be regarded as typical possessive verbal predicates. Thus, only five constructions, i.e. X *memiliki* Y, X *mempunyai* Y, X *punya* Y, X *ada* Y, X *ber*-Y, can be regarded as 'possessives' in Indonesian.

2. One construction, i.e. X *ber*-Y, has a special characteristic and takes a different kind of possessee.

3. The distinction between singular and plural, as well as that between the first, second, and third person, encoded in personal pronouns expressing the possessor does not affect the acceptability of the constructions.

6. Storytelling survey for identifying factors in speakers' choice of possessive verbal predicates in the high and low varieties
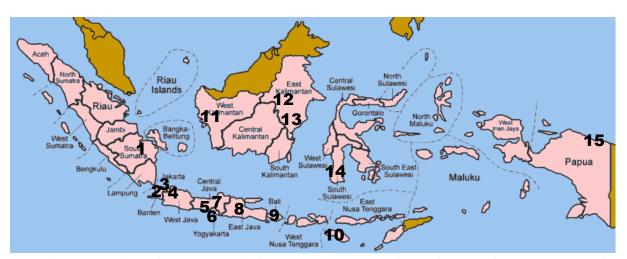
6.1 Storytelling survey

The storytelling survey was conducted in Malang in August 2011 and in Tokyo in September and October 2011. The consultants were from different backgrounds (as for age, place of birth, place of growing up, and mother tongue). All had received a high school-level or university-level education. All could be classified as belonging to the middle class socially[10]. The backgrounds of the consultants

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[10] I also did this survey with two female consultants whom I regard to be the representatives of the low class. One consultant, BA, is 57 years old, born and grew up in Turen, a small town in East Java, and speaks Javanese as the mother language. Her educational background is up to junior high school-level and now she is working as a housemaid in Malang, East Java. Although I gave some explanation about the pictures beforehand, she told the story with much difficulty and I decided that her spoken data is not suitable to be included in this survey. The other consultant, DA, is 21 years old, born and grew up in Kupang, a city in East Nusa Tenggara, and speaks Kupang Malay as the mother language. She did not continue her study to junior high school after graduating from elementary school and now she is working as a housemaid in Malang, East Java. Although I gave some explanation about the pictures beforehand, she seemed very unwilling to tell the story and seemed afraid to make any mistakes. I could not get her spoken data.

are given in Table 5.

Table 5. Backgrounds of the consultants in the 'storytelling' survey

	Initials of consultant	Sex	Age	Place of birth	Place of growing up	Mother language	Place of survey
Speaking	AL	F	40	Magelang	Magelang	Javanese	Malang
	B	F	46	Jakarta	Jakarta	CJI	Malang
	BEW	M	17	Balikpapan	Balikpapan	CI, Chinese	Malang
	CWS	F	18	Jayapura	Jayapura	Papuan Malay	Malang
	EW	F	50	Malang	Malang	Peranakan	Malang
	JC	F	27	Pontianak	Pontianak	Teochew	Malang
	KA	M	54	Tabanan	Tabanan	Balinese	Tokyo
	NDL	F	13	Jakarta	Malang	CI, Javanese mixed	Malang
	P	F	17	Pontianak	Jakarta	CJI	Malang
	PL	F	16	Jayapura	Jayapura	Papuan Malay	Malang
	PN	F	19	Malang	Malang	Peranakan	Malang
	SS	F	35	Jakarta	Jakarta	CJI	Malang
	YOK	M	32	Yogyakarta	Jakarta	CJI	Malang
Writing	AM	F	24	Jakarta	Jakarta	CJI	Tokyo
	AP	F	25	Jakarta	Jakarta	CI	Tokyo
	AW	M	31	Palembang	Palembang	Palembang Malay	Tokyo
	EIS	F	41	Malang	Malang	Javanese	Malang
	J	M	22	Jakarta	Jakarta	Hokkien, CJI	Tokyo
	JSP	F	16	Makassar	Jayapura	Papuan Malay	Malang
	JSS	M	25	Malang	Malang	Peranakan	Malang
	R	M	36	Long Iram	Long Iram	CI, Banjar	Tokyo
	RAS	M	25	Solo	Bekasi	CI	Tokyo
	SKR	F	15	Tangerang	Tangerang	CI, Javanese mixed	Malang
	TTAW	M	16	Sumba Barat	Sumba Barat	Sumba (Kambera)	Malang

Map 2. The location of the places of birth and the places of growing up of the consultants in the 'storytelling' survey (Source: http://www.indonesiamatters.com/86/indonesian- provinces-map/, accessed in November 2011) (1: Palembang, 2: Tangerang, 3: Jakarta, 4: Bekasi, 5: Magelang, 6: Yogyakarta, 7: Solo, 8: Malang, 9: Tabanan, 10: Sumba Barat, 11: Pontianak, 12: Long Iram, 13: Balikpapan, 14: Makassar, 15: Jayapura)

The consultants are divided into two groups, i.e. the 'speaking' and 'writing' groups, mainly based on the free choice given to each consultant. The percentages of male and female consultants in the 'speaking' group are 23.08% and 76.92% respectively, while the percentages of male and female consultants in the 'writing' group are 54.55% and 45.45% respectively. The places of birth and the places of growing up are shown in Map 1.

The place of growing up in Table 5 refers to the place where the consultant was living during the upper grades of the elementary school, i.e. about ten to twelve years old. 'Mother language' refers to the language used for communication at home, particularly for communicating with parents. The language abbreviated to CJI is Colloquial Jakartan Indonesian and the one abbreviated to CI is Colloquial Indonesian. I have to admit here that the difference I made in Table 5 is rather obscure, based on the answer given by the consultant. If, towards the question *bahasa yang dipake sehari-hari di rumah kalo ngomong sama ayah ibu apa?* 'what language do you use in everyday communication at home, especially when you talk with your father and mother?', the consultant answers like *bahasa Indonesia, tapi logat Jakarta* 'Indonesian, but in Jakartan dialect', I regard Colloquial Jakartan Indonesian (CJI) as the mother language of the consultant. If the consultant answers like *bahasa Indonesia* 'Indonesian', then I regard Colloquial Indonesian (CI) as his/her mother language. In brief, the difference between CJI and CI in this survey depends on the awareness of each consultant about whether s/he speaks Jakartan Indonesian or Indonesian.

A story which contains many possessive verbal predicates is prepared to gather the corpus (spoken and written data) in this survey. The story script is presented in Table 6. During the process of making a part of the story I referred to the story script of *Frog, Where Are You?* by Mercer Mayer on page 5 of the Narrative Story Retell Reference Database.

Table 6. Story script for the 'storytelling' survey (words which are yellow marked on the pictures are typed in bold)

Picture	Script
1	There once were two boys who were friends, named A and B.
2	A was a rich boy. He had a very big **house** with a **swimming pool** inside and a limousine with a **chauffeur**. He also had a lot of expensive clothes and money. He wore **glasses** and had **pimples** on his cheeks.
3	A was **the only child**. He had neither **brother**s and **sister**s, nor **grandfather** and **grandmother**, but he had a **father** and a **mother** who loved him very much. He also had **many friends**.
4	On the other hand, B was a poor boy. His house was made of **bamboo**s with a **zinc** roof. His bicycle was very old and **rust**y. He did not have a lot of money and his clothes are very few.
5	B was **the only child**, too. He had neither **brother**s and **sister**s, nor **father** and **mother**, but he still had a **grandmother** who suffered from **bronchitis**. He also had a dog and a frog as **pet**s and **many friends**.
6	His pet frog was very unique. It had two big **eye**s and a long **tail**. He kept the frog in a jar.
7	One day, when A and B were going to the same school, they met and greeted each other.
8	In the classroom, they sat side by side. B asked A, "A, do you have a red pencil?"

9	A answered, "Yes, I do. Here, you can borrow it."
10	A said to B, "B, what's that inside your bag?" B answered, "My pet frog. I kept it in a jar."
11	Then B showed his pet frog in a jar to A. "Look! My pet frog", said B. "I like your frog!" said A.
12	A said, "I want to buy your frog. Here are some money to buy it.", but B said, "No, I don't want to sell it. I won't sell it to anyone. Even plenty money cannot buy my frog."
13	A became angry and said, "This frog is mine. You may not possess it." "No, it's mine. You can't have it.", B said angrily. They were fighting and scrambling for the frog. The teacher warned them, "A and B, don't fight in the classroom!"
14	Suddenly the bottle cap was opened and the frog jumped out of the jar.
15	The frog landed on the teacher's hair and jumped outside the classroom, holding the teacher's hair. It turned out that the teacher wore a wig.
16	Realizing the teacher was actually bald and wore a **wig**, all the students in the class laughed very loudly. The teacher was angry at A and B.
17	After school, it was raining heavily but B did not go home. He looked everywhere for the frog. He called out, "Frog, where are you?"
18	At night, he arrived at a pond with many frogs sitting on lotus leaves. There he found his pet frog with a long tail.
19	He went into the pond and put his pet frog into the jar.
20	Sopping wet, he went home. His grandmother and pet dog were waiting for him outside the house.
21	In the middle of the night, he had a **fever**, caught a **cold**, and was **sweat**ing. His grandmother covered up his body with a **blanket**.
22	The next day, there was a mathematics exam. B was absent and A felt guilty and regretted what he had done to B the day before.
23	After school, A went to B's house with his parents. He apologized to him and said, "I'm really sorry for what I did yesterday. By the way, I have a really good **personal doctor**. Do you want me to call him for you?"
24	A phoned his personal doctor, "Hello, Mr. Doctor, I have a friend who has a fever. If you have time, please come to his place soon." The doctor replied, "OK! I'll be there soon."
25	The doctor soon came to B's house and examined his **fever** and **cold**. B was still **sweat**ing very much. The doctor had a heavy **beard** and a **tooth with a gold crown**.
26	The doctor then gave a cure-all/panacea with great **efficacy** to cure B's illness.
27	B drank the cure-all and became healthy. B's grandmother who was suffering from bronchitis, also drank the cure-all and became healthy.
28	A and B became friends again.

Twenty-eight pictures are drawn based on the story. Various words expressing possessees are written on the pictures and marked yellow with a highlighter pen. Some symbols, such as ○, ×, ?, =, ≠, and ⇒, are also added to the picture.

Before showing those pictures to the consultants, I told them that this survey was a 'storytelling' survey in Indonesian (*penelitian mengenai bercerita dalam bahasa Indonesia*). Then I showed those twenty-eight pictures one by one to the consultants and added some explanation, such as instructions to use all the words written on the pictures –especially those which are yellow marked– in the story if possible, and explanation about the symbols (for instance, ○ means 'yes', 'positive', or 'okay', × means 'no', 'negative', or 'not okay', etc.). After that, I asked them to tell a story based on those pictures in their own daily Indonesian. I also emphasized that there was no need to use 'good and correct'

Indonesian (*tolong ceritakan dalam bahasa Indonesia sehari-hari, nggak perlu pakai bahasa Indonesia yang 'baik dan benar'*).

I left to the consultants a choice between making her/his story by 'speaking' or 'writing'. While looking at the pictures, the consultants who chose 'writing' wrote the story with a word processor, while the consultants who chose 'speaking' told the story, which were recorded.

The spoken data consist of thirteen monologues recorded in Malang and Tokyo between August and October 2011. They were recorded in the consultants' houses, a place of work (an office), or in public places, such as a school canteen and a church. At all recordings, the consultants were first requested to consent to be recorded. During the storytelling task, they were informed when they were being recorded. The spoken data, containing 14,082 words in total, were relatively spontaneous monologues mostly with considerable background noise. Fillers, ellipsis, slips of the tongue, repetition, and obscuring of sentence boundaries are all common features of the spoken data.

The written data consist of eleven word files typed by the consultants in Malang and Tokyo between August and October 2011. The data contain 8,225 words. Unlike the spoken data, sentences in the written data are generally well-formed.

6.2   Quantitative study of variables

Sneddon (2006: 10) states that by a quantitative study of variables we can show the variation in the speech of individuals and by aggregating percentages we can make a statement about general tendencies in the community's linguistic behaviour.

I assume that more features of the low variety appear in the spoken data than in the written data and I therefore consider it of great worth to count tokens of each variable of the low variety in the spoken and written data, respectively. Since the low variety also tend to be used in informal speech, it is also necessary to count tokens of each variable of the low variety in the indirect and the direct narration of each spoken and written data.

The criteria for deciding the low variants are mainly based on Sneddon (2006: 15-136). Various linguistic variables were chosen to determine the degree of lowness of each indirect and direct narration in the spoken and written data, as follows:

1. Word-final diphthongs in the high variety *ai* /ay/ and *au* /aw/ are pronounced with single vowels *e* /e/ and *o* /o/ in the low variety respectively. For instance, a conjunction *kalau* which introduces a subordinate clause in the high variety, is usually pronounced *kalo* in the low variety (Sneddon 2006: 15, 80-82).

2. The vowel *a* /a/ in a final closed syllable of some words in the high variety is usually pronounced with the mid-central vowel schwa /ə/ in the low variety (Sneddon 2006: 17-18).

3. Some words with the initial *s* in the high variety are favourably pronounced without *s* in the low variety. For instance, a perfective marker *sudah* in the high variety is usually pronounced *udah* in the low variety (Sneddon 2006: 18-20, 50-53, 55).

4. The prefix *meN-* indicating the active voice in the high variety may be completely lost, leaving just

the base; or partially lost, leaving only *N*-; or may be replaced by the prefix *nge*- (Sneddon 2006: 20-24). *N* symbolizes a nasal which shares the point of articulation with the first sound of the verb base.

5. The prefix *ter*- indicating uncontrolled events in the high variety is usually replaced by *ke*- in the low variety (Sneddon 2006: 25-27).

6. The suffixes -*kan* and -*i* are usually replaced by -*in* in the low variety (Sneddon 2006: 30-34).

7. The negative marker *tidak,* used with non-nominal predicates in the high variety, is usually replaced by *enggak~nggak~gak~ga~ndak*[11] in the low variety (Sneddon 2006: 56-57).

8. The word *buat*, which originally means 'to make', is often used to replace the preposition *untuk* 'to/for', indicating purpose or the recipient in the high variety. *Kamus besar bahasa Indonesia* (a comprehensive dictionary of Indonesian) notes this word as a colloquial preposition.

9. A single preposition *sama~ama* in the low variety usually corresponds to more than one preposition in the high variety, such as *dengan* 'with' indicating accompaniment or reciprocal relationship, *terhadap* 'towards', *kepada* 'to' marking the recipient, and *oleh* 'by' indicating the agent in a passive construction (Sneddon 2006: 50-53).

10. The first person singular pronoun *gua~gue*, which is derived from Hokkien Chinese, is typically associated with youth and very informal situations (Sneddon 2006: 59-60).

11. The second person singular pronoun *lu*, like *gua~gue*, is derived from Hokkien Chinese and typically associated with the colloquial Indonesian of young people (Sneddon 2006: 64-66).

12. The word *apaan*, which is derived from *apa* 'what' and means 'what kind of', is frequently used in the low variety. *Kamus besar bahasa Indonesia* (a comprehensive dictionary of Indonesian) notes this word as a colloquial word.

13. The word *banget* 'very' is the most common word in the low variety. Its counterparts in the high variety are *amat*, *sangat*, and *sekali*. Young people use *banget* very frequently in conversations (Sneddon 2006: 83-84).

14. In the low variety, *bilang* 'to say' is one of the most frequently occurring verbs. It is strongly associated with informal speech and rarely occurs in purely formal language. Its counterparts in the high variety are *berkata* and *mengatakan* (Sneddon 2006: 101-102).

15. The word *btw*, pronounced /be.te.we/, originally stands for 'by the way' and still maintains its original meaning, is frequently used in the low variety.

16. The word *bikin* 'to make' is usually used in the low variety, instead of *membuat* which is used in the high variety (Sneddon 2003: 532; 2006: 17).

17. The word *cowok* 'male, man, guy' is highly marked as the low variant. Its counterparts are *laki-laki* and *pria* (Sneddon 2006: 105-106).

18. The word *curhat* stands for *curahan hati*, which means 'to have a heart-to-heart talk'. It is used in the low variety. In the high variety, *mencurahkan isi hati* is usually used instead.

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[11] In this section the following convention is employed: x~y indicates that x and y are different pronunciations of a single form. For instance, *nggak~gak* 'NEG' indicates free variation between *enggak* and *gak*.

19. The word *doang* 'only, just' sometimes occurs in the low variety and is very strongly marked for informality. While this word does not occur often, in the usage of younger speakers it is nevertheless much more frequent than *saja*, its counterpart in the high variety (Sneddon 2006: 82).

20. The common word for 'money' in the low variety is *duit*, while in the high variety *uang* is frequently used. *Kamus besar bahasa Indonesia* (a comprehensive dictionary of Indonesian) notes this word as a colloquial word.

21. The common word for 'big' in the low variety, especially among young people, is *gede*, while in the high variety *besar.* (Sneddon 2006: 104-105)

22. The word *bagaimana* 'how?' in the high variety is frequently contracted to *gimana* in the low variety. (Sneddon 2006: 90-91)

23. The word *kali* is short for *barangkali* 'perhaps, possibly'. *Barangkali* is the high variant, while *kali* is the low variety counterpart, strictly confined to informal speech (Sneddon 2006: 96).

24. In the high variety, *memberi* is the general word for 'to give'. In the low variety the more common word is *kasi~kasih* (Sneddon 2006: 100-101).

25. The word *kayak* 'like, resembling' occurs frequently in the low variety. Its high variant is *seperti*, being the only one to occur in the high variety (Sneddon 2006: 98-99).

26. The word *kenapa* 'why?, what's the matter with?' is often used in the low variety. In the high variety, *mengapa* is usually used (Sneddon 2006: 92).

27. The word *makanya* 'that's why, because of that' is usually used in the low variety, while in the high variety *maka dari itu* or *oleh sebab itu* is used instead. *Kamus besar bahasa Indonesia* (a comprehensive dictionary of Indonesian) notes this word as a colloquial word.

28. The word *terima kasih* 'thank you' in the high variety is sometimes contracted to *makasih* in the low variety.

29. Besides *btw*, mentioned in 14, *ngomong-ngomong* 'by the way' is also frequently used in the low variety (Sneddon 2006: 104).

30. The word *pada* 'altogether' is highly informal. It occurs in *Kamus besar bahasa Indonesia* (a comprehensive dictionary of Indonesian), being identified as conversational/colloquial (Sneddon 2006: 84-86). Its counterpart in the high variety is *semuanya* or *sama-sama*.

31. The word *pas* 'when (of past events)' is confined to informal language, while the word *waktu* is neutral as to formality and *ketika* is confined to formal language (Sneddon 2006: 92-94).

32. The word *soalnya* 'because' is often used in the low variety, while its counterpart, *karena* is usually used in the high variety.

33. The word *sori*, originally from 'sorry', is frequently used in the low variety. Its counterpart in the high variety is *maaf*.

34. Discourse particles or discourse markers: *deh, dong, kan, kok, lho~loh~lo, nah~na, nih~ni, tuh~tu, sih*, and *yah~ya* are very frequent in the low variety, especially in the discourse (Sneddon 2006: 117-131).

35. The adverbs of manner *begini* 'like this' and *begitu* 'like that' in the high variety are usually

shortened to *gini* and *gitu* in the low variety, respectively. These shortened forms are very commonly used in the low variety as pragmatic devices similar to discourse particles (Sneddon 2006: 132-136).

In determining the degree of lowness in the spoken data, I also include some spoken variants, as follows: fillers, such as *e:, o:,* and *a:,* filler *apa* 'what?' and *apa namanya* 'what's the name?', click, written as *ck* in the transcripts, repetition, and slip of the tongue.

6.3   Results and discussion

Figure 8 and Figure 9 show us that there is more gap between the indirect and direct narration in the written data than in the spoken data.
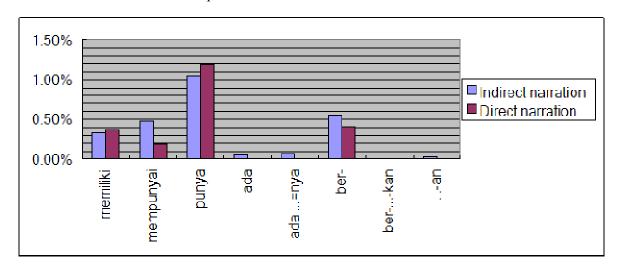

Figure 8. The percentages of eight possessive verbal predicates in the indirect and direct narrations of the spoken data
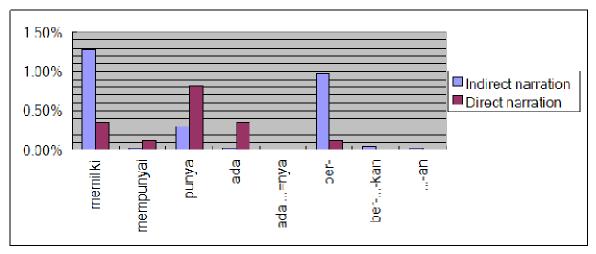

Figure 9. The percentages of eight possessive verbal predicates in the indirect and direct narrations of the written data

In the indirect narration of the written data, *memiliki* occurs with a high frequency (1.27%, 94 tokens out of 7373), followed by *ber-* (0.98%, 72 tokens out of 7373). However, in the direct narration

23

of the written data, *punya* occurs most frequently (0.82%, 7 tokens out of 852) among the possessive verbs. Actually, *punya* occurs with the highest frequency, both in the indirect narration (1.05%, 125 tokens out of 11,893) and in the direct narration (1.19%, 26 tokens out of 2,189) of the spoken data. Thus, we may say that *punya* occurs more frequently in spoken than in written data, and more frequently in direct than in indirect narration. It seems to suggest that the choice of *punya* as the possessive verbal predicate would correlate with the lowness of the variety in which it occurs.

In order to verify such correlation between the speakers' choice of a specific possessive verbal predicate and the formality (i.e. the high or low variety), the relation needs to be examined statistically. In this case, we have to check how and to what extent the number of the low variety's tokens and the number of each possessive verbal predicate's tokens are correlated. The degree of correlation between these two variables can be measured using the Pearson's correlation coefficient, the value of which ranges from -1 to +1. Positive correlation coefficients indicate that both variables increase or decrease together, whereas negative correlation coefficients indicate that as one variable increases, the other decreases, and vice versa. If coefficients approach zero, correlation gets weaker. The closer the coefficient is to either -1 or +1, the stronger the correlation between the variables. Concerning the relationship between the low variety's tokens and each possessive verbal predicate's tokens, we get the result, as follows:

Table 7. The Pearson's correlation coefficients between the low variety's tokens and each possessive verbal predicate's tokens in the spoken, written, and overall data

Spoken		Written		Overall	
memiliki	-0.38	*memiliki*	-0.53	*memiliki*	-0.57
mempunyai	-0.31	*ber-*	-0.26	*ber-...-kan*	-0.29
ber-...-kan	-0.21	*ber-...-kan*	-0.06	*ber-*	-0.12
ber-	-0.03	*mempunyai*	0.11	*mempunyai*	0.06
ada	0.25	*punya*	0.25	*ada*	0.25
ada ...=nya	0.30	*-an*	0.25	*ada ...=nya*	0.46
punya	0.78	*ada*	0.56	*-an*	0.63
-an	0.93	(*ada ...=nya* is absent)		*punya*	0.82

We may interpret that *punya* and *-an* have strong positive correlations with the low variety's tokens and thus are frequently used in the low variety, although in the written data the correlation coefficients are near zero. The possessive verb *memiliki* has a strong negative correlation with the low variety's tokens and are thus considered to be used in the high variety, although in the spoken data the coefficient value is closer to zero, than in the written and overall data. The existential verb *ada* has a strong positive correlation in the written data, but not in the spoken and overall data. The coefficient of the other possessive verbal predicates, i.e. *mempunyai*, *ber-*, *ber-...-kan*, and *ada ...=nya*, approach zero, and we may thus say that those possessive verbal predicates have no significant correlations with either the low or the high variety.

Based on Figure 8, Figure 9, and Table 7, we may summarize our findings with the results of previous studies in Table 8.

Table 8. The summary of the relationship between possessive verbal predicates and the register

Possessive verbal predicate	Register			
	Hopper (1972)	**Alieva (1992)**	**Moeljadi (2010)**	**2011 Survey**
memiliki		High	High	High
mempunyai	High	High	High	High, Low
punya	Low	Low	Low	Low
ada	-	-	Low	Low
ada ...=nya		-	Low	Low
ber-		-	High	High, Low
ber-...-kan		-	High	High, Low
-an			Low	Low

Hopper (1972: 137-140) deals with *mempunyai*, *punya*, and *ada* as possessives and states that *mempunyai* has come into general use in formal written Indonesian, while *punya* is its colloquial equivalent. Thus, I have interpreted Hopper's description as follows: *mempunyai* is generally used in the high variety and *punya* in the low variety. However, he does not mention when or where *ada* is used. Alieva (1992: 15-19) mentions that *memiliki*, *mempunyai*, *punya*, *ada*, *ada ...=nya*, *ber-*, and *ber-...-kan* are possessives. She notes that *memiliki* and *mempunyai* belong to the modern educated speech, while *punya* is common in everyday speech. However, she does not note when or where the other possessive predicates are used. Thus, I regard that according to Alieva (1992: 15-19), *memiliki* and *mempunyai* are used in the high variety and *punya* in the low variety. Moeljadi (2010: 93) deals with eight possessive predicates and regarding the high and low varieties, he summarizes that *memiliki*, *mempunyai*, *ber-*, and *ber-...-kan* tend to appear in the high variety, while *punya*, *ada*, *ada ...=nya*, *-an* in the low variety. Survey conducted in 2011 also deals with the eight possessive predicates. Table 8 shows us that *memiliki* correlates with the high variety, while *punya* and *-an* with the low variety. The correlation coefficients of *mempunyai*, *ber-*, and *ber-...-kan* are almost zero and we may assume that they do not correlate with the distinction between high and low varieties. Figure 8 and Figure 9 show us that *ber-* and *mempunyai* appear in both indirect and direct narration, although *ber-* appears more frequently in the indirect narration than in the direct narration of the written data and *mempunyai* appears more frequently in the indirect narration than in the direct narration of the spoken data. The affix *ber-...-kan* appears with a low frequency only in the indirect narration of both spoken and written data. I consider that *mempunyai*, *ber-*, and *ber-...-kan* tend to be used in the high variety, as well as in the low variety. The correlation coefficients of *ada* and *ada ...=nya* are quite close to +1, and thus tend to be used in the low variety.

The overall data obtained from the survey and the findings lead to the following results. The possessive verb *memiliki* can be used with all types of possessee, such as *rumah* 'house', *supir* 'chauffeur', *keunikan* 'uniqueness', *wajah* 'face', *jerawat* 'pimples', *atap* 'roof', and *orang tua* 'parents'.

It also appears in the passive form and tends to be used when the speaker wants to express his/her intention to possess something, both in the spoken and in the written data, as in example 6-1 and 6-2. It may take an inanimate possessor as in example 6-3 and indicates that the inanimate possessor has something as its part.

(6-1) "(...) Froggy itu (...) tidak pantas (...) **di-milik-i** oleh orang yang
                that   NEG suitable   UV-milik-TR by   person REL

      seperti kamu (...)." (B)
      like   2SG

      "(...) Froggy (the name of the pet frog) is not suitable to be possessed by a person like you (...)."

(6-2) "pokoknya aku ingin **me-milik-i** kodok ini." (AP)
      main.thing 1SG want AV-milik-TR   frog   this
      "The main thing is that I want to possess this frog."

(6-3) Rumah=nya   **me-milik-i**   kolam renang. (SKR)
      house=nya   AV-milik-TR   swimming.pool
      'His house has a swimming pool.'

The possessive verb *mempunyai* can also be used with all types of possessee. However, unlike *memiliki*, it appears only once in passive form in the corpus.

(6-4) Apa yang dia **punya-i**?   (EW)
      what REL 3SG punya-TR
      'What does he possess?'

It has been already mentioned that the possessive verb *mem-punyai* is changed to *di-punyai* in passive. However, it should also be noted that the passive in Indonesian has two forms: if the agent is a pronoun, the passive form is without *di-* as in 6-4, and otherwise with *di-* as in 4-6.

      The possessive verb *punya*, which is used mainly in the low variety, may be used without the possessor and/or the possessee if the context is clear enough to identify it, as in example 6-5 and 6-6, whereas this is not the case with *memiliki* and *mempunyai*. The possessee may precede *punya*, as in example 6-7. It may take an inanimate possessor as in example 6-8.

(6-5) "Apakah   kamu   **punya**?"   (AL)   (6-6) **Punya**   se-orang nenek, (...)   (KA)
      QW   2SG   punya   punya   one-CL   grandmother
      "Do you have (a pencil)?"   '(He) has a grandmother, (...)'

(6-7) David   ini   anak tunggal, (...)   adik   nggak   **punya**,
               this   child single   younger.sibling NEG   punya

      kakak   nggak   **punya**, kakek   nenek   juga   nggak   **punya**. (SS)
      elder.sibling NEG   punya   grandfather grandmother also   NEG   punya

'David is the only child, (...) he does not have brothers and sisters, he also does not have grandparents.'

(6-8) Nah mobil=nya ini juga **punya** sopir. (EW)
dp car=nya this also punya chauffeur
'Well then, this car also has a chauffeur.'

The existential verb *ada* can be used with all types of possessee, such as *jerawat* 'pimples', *sendal* 'sandal', *kakak* 'elder sibling', *flu* 'flu', and *kenalan dokter* 'acquaintance doctor'. Like *punya*, *ada* may appear without a possessee noun if the context is clear, as in example 6-9 and 6-10. It may take an inanimate possessor as in example 6-11 and indicates that the inanimate possessor has something as its part.

(6-9) "(...) Lu kan **ada** banyak." (J)   (6-10) "Gua **ada** banyak." (J)
2SG dp EXIST many   1SG EXIST many
"(...) You have many (pencils), right."   "I have many (pencils)."

(6-11) Rumah=nya **ada** kolam renang. (RAS)
house=nya EXIST swimming.pool
'His house has a swimming pool.'

The expression *ada ...=nya* is present only in the spoken data and has a tendency to be used with an inanimate possessor to express that the inanimate possessor has something as its part, as in example 6-12 and 6-13, although it can have the animate possessor and inalienable possessee as well, as in example 6-14 and 6-15.

(6-12) (...) rumah=nya **ada** kolam renang**=nya** (...). (PN)
house=nya EXIST swimming.pool=nya
'(...) his house has a swimming pool (...).'

(6-13) (...) toples yang tertutup tapi **ada** udara**=nya**. (EW)
jar REL closed but EXIST air=nya
'(...) a closed jar but it has air inside.'

(6-14) Katak itu (...) **ada** ekor**=nya** panjang. (AL)
frog that EXIST tail=nya long
'That frog has a long tail.'

(6-15) Lalu dia juga (...) tidak **ada** adik**=nya** (...) (YOK)
then 3SG also NEG EXIST younger.sibling=nya
'He also does not have a younger brother/sister (...).'

27

The prefix *ber-* tends to take a body part or a part of a whole as possessee. For instance, *ber-atap* 'to have a roof' (*atap* 'roof'), *ber-dinding* 'to have a wall/walls' (*dinding* 'wall'), *ber-karat* 'to have rust' (*karat* 'rust'), *ber-mata besar* 'to have big eyes' (*mata* 'eye', *besar* 'big'), *ber-ekor* 'to have a tail' (*ekor* 'tail'), *ber-jerawat* 'to have pimples' (*jerawat* 'pimples'), *ber-gigi emas* 'to have a tooth/teeth with a gold crown' (*gigi* 'tooth', *emas* 'gold'), *ber-janggut* 'to have beard' (*janggut* 'beard'), *ber-khasiat* 'to have efficacy' (*khasiat* 'efficacy'), *ber-isi* 'to have contents' (*isi* 'content'), *ber-kepala botak* 'to have a bald head' (*kepala* 'head', *botak* 'bald'), *ber-perawakan* 'to have posture' (*perawakan* 'posture'), *be-rambut ikal* 'to have curly hair' (*rambut* 'hair', *ikal* 'curly'), *ber-warna* 'to have colour' (*warna* 'colour'), *ber-hikmat* 'to have wisdom' (*hikmat* 'wisdom'), *ber-tembel-tembel* 'to have patches' (*tembel-tembel* 'patches'), *ber-harga* 'to have value' (*harga* 'value, price'), *ber-nama* 'to have a name' (*nama* 'name'), and *ber-merk* 'to have a brand' (*merk* 'brand'). The affix *ber-...-kan* only occurs five times in the corpus and only takes *atap* 'roof' as its possessee. For instance,

(6-16) Rumah=nya **ber-**atap-**kan** seng (...) (SKR)

      house=nya   ber-roof-APP zinc

      'His house has a zinc roof (...)'

The suffix *-an* only takes *karat* 'rust' and *jerawat* 'pimples' as the possessee in the corpus. *Karat-an* occurs four times, while *jerawat-an* only once. For instance,

(6-17) (...) sepeda   yang karat-**an** (...) (SS)   (6-18) Si Anton itu (...)   jerawat-**an** (...) (P)

           bicycle   REL   rust-an   Art   that   pimples-an

           '(...) a bicycle which has much rust (...)'   'Anton has many pimples (...)'

As discussed above, we may conclude that:

1. The possessive verb *memiliki* tends to be mainly used in the high variety, while the possessive verb *punya* tends to be very frequently used in the low variety. The existential verb *ada* and the suffix *-an* tend to appear in the low variety. The prefix *ber-*, *ber-...-kan*, and the possessive verb *mempunyai* tend to occur both in the high and low varieties, and with lower occurence, *ada ...=nya* tends to be present in the low variety.

2. Since the affixes *ber-...-kan* and *-an* occupy a very small percentage and take a very limited number of possessees, we may say that they are peripheral to the domain of possession in Indonesian and cannot be regarded as typical possessive verbal predicates. *Ada ...=nya* takes inalienable (and definite) possessees and can be included in *ada*. This accords with the conclusion mentioned in 5.3, i.e. only five possessive verbal predicates (*memiliki*, *mempunyai*, *punya*, *ada*, and *ber-*) can be regarded as the real possessive verbal predicates in Indonesian.

3. The possessive verb *punya* and the existential verb *ada*, which tend to be used in the low variety, have special characteristics: they can occur without a possessor and/or a possessee if the context is clear and the possessee may precede the verb in the case of *punya*, while this is not the case with

memiliki which tends to be used in the high variety.

7. Summary of results

As discussed in the preceding sections, we may summarize as follows:

1. Only five possessive verbal predicates, i.e. *memiliki*, *mempunyai*, *punya*, *ada*, and *ber-*, can be considered as occupying the central domain of possessive verbal predicates. The others are peripheral.

2. The encoding of the posessor does not affect the choice of possessive verbal predicates. However, the encoding of the possessee affects the acceptability of possessive verbal predicates.

3. Based on the encoding of the possessee, we may categorize the possessive verbal predicates into two groups: *memiliki*, *mempunyai*, *punya*, *ada* in one group, and *ber-* in the other group.

4. The possessive verb *memiliki* tends to be mainly used in the high variety, while the possessive verb *punya* tends to be very frequently used in the low variety. The existential verb *ada* also tends to appear in the low variety. The prefix *ber-* and the possessive verb *mempunyai* tend to occur both in the high and low varieties.

5. Having the low variety characteristics, the possessive verb *punya* and the existential verb *ada* may occur without a possessor and/or a possessee if the context is clear and the possessee may precede the verb in the case of *punya*. These characteristics are not seen with the possessive verb *memiliki.*

Abbreviations: 1, 2, 3 : First, second, and third person, APP : Applicative suffix, Art : Personal article, AV : Actor voice prefix, CL : Classifier, dp : discourse particle, Excl : Exclusive, EXIST : Existential verb, IMP : Imperative, Incl : Inclusive, LOC : Locative preposition, NEG : Negative, PERF : Perfective aspect, PL : Plural number, PROG : Progressive aspect, QW : Question word, REL : Relativizer, SG : Singular number, TR : Transitivizer, UV : Undergoer voice prefix, x~y : x and y are forms which freely alternate (in a particular context), e.g. *sama~ama*, '=' indicates a clitic boundary, '-' indicates a bound morpheme boundary

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