Possessive Verbal Predicate Constructions in Indonesian*

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Abstract
This paper deals with verbal predicate constructions used to express ‘possession’ in Indonesian (both ‘formal Indonesian’ and ‘Colloquial Jakartan Indonesian’). In Moeljadi (2010), I stated that there are eight possessive verbal predicate constructions in Indonesian, i.e. X memiliki Y, X mempunyai Y, X punya Y, X ada Y, X ada Y=nyaa, X ber-Y, X ber-Y-kan Z, and X Y-an (X represents ‘possessor’, Y represents ‘possessee’ or ‘possessum’, and Z represents a complement.).

The analysis of how Indonesian encodes one ‘possession’ concept to more than one constructions shown above has mainly been based on intuition as a native speaker of Indonesian. The conclusion is that the ‘register’ and the ‘(in)alienability’ notion play important roles in the encoding process. I previously analyzed this based on intuition in Moeljadi (2010), but this time I conducted interviews in 2010 and 2011 in order to make an objective analysis. The data I got from those interviews were then analyzed using cluster analysis. I conclude that (i) only five constructions, i.e. X memiliki Y, X mempunyai Y, X punya Y, X ada Y, X ber-Y, can be regarded as encoding the meaning of ‘possession’, (ii) one construction, i.e. X ber-Y, has a special characteristic and takes a different kind of possessee, and (iii) whether the possessor is singular, plural, the first, second, or third personal pronoun, the acceptability of the constructions does not change.

1. Examples of possessive verbal predicate constructions in Indonesian
Here are some examples of possessive verbal predicate constructions in Indonesian noted in previous studies (Hopper 1972: 137-140 and Alieva 1992: 15-19):

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1 Indonesian, which is called bahasa Indonesia by its speakers, is a Malayic language of Western Malayo-Polynesian branch of Austronesian language family and spoken mainly in the Republic of Indonesia, as the sole official national language and as the common language for hundreds of ethnic groups living there (Alwi et al. 2000: 1-2). Morphosyntactically, Indonesian is an agglutinative VO language. Tense, number, gender, and case morphemes do not have any important role in the grammar system. The present-day official Perfected Spelling (Ejaan yang Disempurnakan) is used in this paper.

2 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).

3 the Low variety of Indonesian –also called bahasa informal ‘informal language’, or bahasa takbaku ‘non-standard language’ – is based on the colloquial variety in Jakarta (Sneddon 2006).
(1) a. Eka memiliki⁴ lima kemeja batik, …
   AV-MILIK-APP five shirt
   ‘Eka has five batik shirts, …’ (Busana Batik Bisa Dikemas Tak Terlalu Formal in KOMPAS.com 2009/10/01, own translation)

b. Adi mempunyai⁵ banyak uang.
   AV-PUNYA-APP many money
   ‘Adi has a lot of money.’ (own data)

c. Gue⁶ punya⁷ dua orang kakak perempuan.
   1SG PUNYA two CL older.sibling female
   ‘I have two elder sisters.’ (Sneddon 2006: 199)

d. Ia ada⁸ anak banyak.
   3SG EXIST child many
   ‘S/he has many children.’ (Hopper 1972: 139)

e. Rumah ini ada beranda=nya⁹.
   house this EXIST verandah=NYA
   ‘This house has its verandah.’ (Alieva 1992: 16)

f. Pendapat=nya tidak ber¹⁰-dasar.
   opinion=NYA NEG ber-basis
   ‘His opinion has no basis.’ (Sneddon 1996: 111)

g. Botol ini ber-isi-kan obat.
   bottle this ber-content-APP medicine
   ‘This bottle contains medicine.’ (Sneddon 1996:111)

Hopper (1972: 137-140) notes that mempunyai, punya, and ada function as possessive verbs while Alieva (1992: 15-19) mentions that memiliki, mempunyai, punya, ada ...=nya, ber-, ber-...-kan, and ada have the meaning 'to have'.

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⁴ The verb memiliki is derived from the root milik. 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 milik has the sense 'property, possessions, goods and chattels, fortune, wealth; estate; landed property, real estate' and the plural form amilik has the sense 'possessions (=colonies); lands, landed property, estates'.

⁵ The verb mempunyai is derived from the root punya, which originally consists of (em)pu and =nya and is morphologically complex. The morpheme (em)pu is from the old Javanese word empu (npu, 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).

⁶ Gue is often used in Colloquial Jakartan Indonesian, while aku, which has the same meaning as gue, is neutral, used in both informal and formal Indonesian.

⁷ Hopper (1972: 138) states that punya is losing, or has already lost, its original connection with the root (em)pu, and in all varieties of Malay, including Indonesian, is analyzed as the colloquial equivalent of mempunyai.

⁸ The existential verb ada derives the copula adalah in a nominal predicate construction. An existential predicate construction requires ada obligatorily, while in a locative predicate construction ada is optional. For the details, see Moeljadi 2010: 22-29.

⁹ The enclitic =nya is originally from the third person singular pronoun ia and has the original function as the third person singular pronoun enclitic.

¹⁰ The functions of ber- are explained in 3.3.
2. Previous studies

Hopper (1972: 137-140) states that in formal written Indonesian, *mempunyai* has come into general use which corresponds to most usages of English *have* in the sense of 'to own' or 'to possess'. He argues that its function is so close to that of the Western European verbs of having as to be clearly modeled on these verbs. Like *mempunyai*, *punya* serves as a general equivalent of Western *have*-like verbs. *Ada* is said to bear the same relation to *punya*, as *have* does to *own* in English.

Alieva (1992: 15-19) mentions that Malay 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 Indonesian 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, the other with verb-deriving prefixes– can be considered as the primary forms or the basis of possessivity in Malay:

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 example (1e).
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 between the possessor and the possessed object are both expressed in a sentence by one and the same word.

Alieva (1992: 19) also notes that these two kinds of clauses are prevalent in texts, while the special verbs, though rather differentiated in meaning and capable of voice alternation, are used only rarely.

Concerning clauses with *ada*, Alieva (1992: 15-16) states that the verb *ada* ‘to be’ as in example (1d) 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.

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 (see Figure 1) (X represents ‘possessor’, Y represents ‘possessee’ or ‘possessum’, and Z represents a complement):

I. Constructions with possessive verbs: (1) X *mamiliki* 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
Figure 1. The division of possessive verbal predicate constructions in Indonesian according to Moeljadi 2010 (X=possessor, Y=possessee/possessum, Z=complement)

The characteristic of each construction and the examples are briefly mentioned in the next section. Based on my intuition as a native speaker of Indonesian, I concluded that the register (i.e. the formal and informal 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 possesees.

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

<table>
<thead>
<tr>
<th>Constructions</th>
<th>Parameters</th>
<th>Possessive predicate</th>
<th>Possessee (Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>H/L variety</td>
<td>Passivization and imperative</td>
<td>Pers.Pron Pers.Proper Names</td>
</tr>
<tr>
<td>possessive verbs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X memiliki Y</td>
<td>H</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>X mempunyai Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X punya Y</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>existential verb ada</td>
<td>L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X ada Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X ada Y=nya</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>nominal affixes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X ber-Y</td>
<td>H</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>X ber-Y=kan Z</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X Y-an</td>
<td>L</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Objects that are 'inherent' or 'inseparable' from the possessor, such as head, heart, are called 'inalienable' objects. On the other hand, objects that are 'transferable' or 'separable' from the possessor, such as book, car, are called 'alienable' objects.
Table 2. The relation between possessee (Y) and (in)alienability in Indonesian (extracted from Moeljadi 2010: 98-99)

<table>
<thead>
<tr>
<th>ALIENABLE</th>
<th>INALIENABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>X memiliki Y, X mempunyai Y, X punya Y</td>
<td>X ber-Y, X ber-Y-kan Z</td>
</tr>
<tr>
<td>X ada Y</td>
<td>X ada Y=nya</td>
</tr>
<tr>
<td>Event, Temporary property</td>
<td>Social relation, Belongings (movables), Nonspecific referents</td>
</tr>
<tr>
<td>acara 'event'</td>
<td>iemane 'friend'</td>
</tr>
<tr>
<td>rapat 'meeting'</td>
<td>buku 'book'</td>
</tr>
<tr>
<td>tes 'test'</td>
<td>anjing 'dog'</td>
</tr>
<tr>
<td>demam 'fever'</td>
<td>sesuatu 'something'</td>
</tr>
</tbody>
</table>

3. Possessive verbal predicate constructions in Indonesian
3.1 Constructions with possessive verbs memiliki, mempunyai, and punya

X memiliki Y and X mempunyai Y can be passivized as in example (2c) and (2f) and can be changed to imperative as in (2d) and (2g)\(^\text{12}\). Personal pronouns and personal proper names can be the direct object in X memiliki Y as in (2b) but not in X mempunyai Y as in (2e). X punya Y cannot be passivized, and there is no imperative construction with it, as in (2i). It cannot take personal pronouns or personal proper names as the direct object, as in (2h). X memiliki Y and X mempunyai Y tend to appear in formal Indonesian, while X punya Y tends to appear in informal Indonesian (see also footnote 7).

(2) a. Dia ingin me-milik-i tas=ku
3SG want AV-MILIK-APP bag=1SG
‘S/he wants to possess my bag.’ (own data)

b. Aku ingin me-milik-i=mu, Indah.
1SG want AV-MILIK-APP=2SG
‘I want to possess you, Indah.’ (own data)

c. Enam Model Jeans yang Harus Di-milik-i
six type jeans REL must UV-MILIK-APP
‘Six Types of Jeans which Must Be Owned’ (a title of an article in KOMPAS.com 2009/10/29)

\(^{12}\) Memiliki is changed to dimiliki in passive and milikilah in imperative. Mempunyai is changed to dipunyai in passive and punyailah in imperative, but some consultants do not accept punyailah.
d. Milik-i-lah anak yang banyak.
   MILIK-APP-IMP child REL many
   ‘Have many children.’ (Lagu Kesunyian di Penghujung Hari in KOMPAS.com 2009/08/29)

e. * Orang gila itu ingin mem-punya-i=ku.
   person crazy that want AV-PUNYA-APP=1SG
   ‘That crazy person wants to possess me.’ (own data)

f. Hak untuk meng-ekspresi-kan diri di-punya-i oleh setiap orang.
   right to AV-expression-APP self UV-PUNYA-APP by every person
   ‘The right to express oneself is possessed by everyone.’ (own data, based on Sneddon 2006: 208)

g. ? Punya-i-lah impian!13
   PUNYA-APP-IMP dream
   ‘Have a dream!’ (own data)

h. * Gua pingin punya elu.
   1SG want PUNYA 2SG
   ‘I want to possess you.’ (own data)

i. * Punya-lah impian!
   PUNYA-APP-IMP dream
   ‘Have a dream!’ (own data)

3.2 Constructions with the existential verb ada

The existential verb *ada*, which functions as the predicate of 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 of 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 informal Indonesian.

(3) a. Saya *ada* uang untuk mem-beli ini.
   1SG EXIST money to AV-buy this
   ‘I have money to buy this.’ (Alieva 1992: 15)

b. Lu *ada* kunci=nya?
   2SG EXIST key=NYA
   ‘Do you have the key?’ (own data)

c. (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)

My analysis was that the possessees in *X ada *Y* are alienable and the possessees in *X ada

13 In Moeljadi (2010), I regarded that this imperative sentence was acceptable but later I found that some consultants do not
accept this imperative sentence with *punyailah*.
Y = nya are inalienable (i.e. body-parts, part-whole relationship, general nature, and substance attached to a narrow area) (see Table 2). Thus, I hypothesized that = nya functions as an ‘inalienability marker’. However, later I found that it is not significant to differentiate between X ada Y and X ada Y = nya (see Section 5).

### 3.3 Constructions with denominal affixes ber-, ber-...-kan, -an

Three denominal affixes, prefix ber-, circumfix ber-...-kan, and suffix -an, denominalize Y so that Y becomes a verbal predicate in each construction. Sneddon (2009: 137) calls this phenomenon as ‘predicativization’ and notes 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’. A predicativized possessee phrase can be directly translated into moneyed, red-nosed, wide-eyed etc.

None of these three constructions can be passivized. The suffixal part -kan in the X ber-Y-kan Z construction triggers the presence of an obligatory noun complement (Z) as in example (4c) and (4d). As for the X ber-Y construction it may take an optional noun complement which specifies Y as in example (4a) and (4b). Both X ber-Y and X ber-Y-kan Z tend to appear in formal Indonesian, while X Y-an tends to appear in informal Indonesian.

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. beratap ‘to have a roof’ (< atap ‘roof’), beristri ‘to have a wife’ (< istri ‘wife’)
2. ‘to use, to wear, to operate’, e.g. bersepeda ‘to ride a bicycle’ (< sepeda ‘bicycle’), berbaju ‘to wear a shirt’ (< baju ‘shirt’)
3. ‘to produce’, e.g. bertelur ‘to lay eggs, to spawn’ (< telur ‘egg’), berkeringat ‘to sweat’ (< keringat ‘sweat’)
4. ‘reciprocal, indicating that two people stand in the same relationship to each other’, e.g. berteman ‘mutual friends’ (< teman ‘friend’), bertetangga ‘mutual neighbours’ (< tetangga ‘neighbour’)
5. ‘to engage in the activity specified by the base’, e.g. berpiknik ‘to picnic’ (< piknik ‘picnic’), berperang ‘to wage war’ (< perang ‘war’)

Unlike in Moeljadi (2010: 78), where I discussed not only the first, but also the second and the third meanings mentioned above, here I discuss only the first meaning, i.e. ‘to have’, because in the second and the third meaning, although the result is Y is attached to X, the sense of ‘possessive’ is not included. For example in X bersepeda ‘X rode a bicycle’, the bicycle may not be of X.

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 (4e) and (4f).

(4) a. Dia sudah ber-istri.

3SG PERF ber-wife

‘He already has a wife.’ (Alwi et al. 2000: 142)
b. 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)

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

d. Dia sudah **ber-istri-kan** orang Minang.
   3SG PERF ber-wife-APP person
   ‘He already has a Minang person as his wife.’ (Alwi et al. 2000: 142)

e. Orang itu **uban-an**.
   person that grey.hair-an
   ‘That person is grey-haired.’ (lit: ‘That person has lots of grey hair.’) (own data)

f. Pipi lu **jerawat-an**.
   cheek 2SG pimple-an
   ‘Your cheek is pimpled.’ ‘Your cheek is covered with many pimples.’ (own data)

4. **Overview of research conducted in summer 2010 and spring 2011**

Interviews were held in 2010 and 2011 in order to make an objective analysis of possessive verbal predicate constructions in Indonesian. Those interviews 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 interviews in 2010 were from different backgrounds (as for age, place of birth, and mother tongue) while all the consultants who participated in interviews in March 2011 were around the same age and natives of Jakarta. See Table 3 for the backgrounds of consultants.

To make sample sentences to be judged, forty-one nouns\(^{14}\) were chosen as possessees and various nouns, including personal pronouns\(^{15}\) as possessors. They were combined and inserted in eight possessive verbal constructions mentioned in Section 3. For example, **saya** (1SG) **memiliki buku** 'book', **Anda** (2SG) **memiliki buku**, **dia** (3SG) **memiliki buku**, **saya mempunyai buku**, **Anda mempunyai buku**, **dia mempunyai buku**, **gua** (1SG) **punya buku**, **kamu** (2SG) **punya buku**, **dia punya buku**, saya memiliki teman

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\(^{14}\) Those forty-one nouns are 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 brother/sister', adik 'younger brother/sister', 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', and bagian dalam yang kosong 'empty space'.

\(^{15}\) Those various nouns are: (i) personal pronouns: saya/aku/gua/gue (1SG), Anda/kamu/lu (2SG), kami/kita (1PL), mereka (3PL), and (ii) 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', and kotak ini/itu 'this/that box' for bagian dalam yang kosong 'empty space'. I consider nouns in (ii) to be included in the third personal pronouns. If those nouns are considered acceptable in certain constructions, I judge that the first and the second personal pronouns are also acceptable in those constructions. 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 singular and plural personal pronouns as possessors. I input the data (values) for cluster analysis but then I found that there is no reason to divide possessors into singular and plural number, as well as to divide possessors into first, second, and third personal pronouns (see Figure 6).
'friend', dia mempunyai teman, gue (1SG) punya teman, gue ada teman, besi ini ‘this steel’ memiliki karat ‘rust’, besi ini mempunyai karat, etc. Eighteen consultants were asked to answer whether each of the sentences with different combinations of a possessee, a possessor, and a possessive verbal construction is (i) usual and acceptable, (ii) slightly unusual but still acceptable, or (iii) unusual and strange, i.e. unacceptable.

Table 3. Backgrounds of consultants

<table>
<thead>
<tr>
<th>Consultant</th>
<th>Sex</th>
<th>Age</th>
<th>Place of birth</th>
<th>Mother language</th>
<th>Time of interview</th>
<th>Place of interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Male</td>
<td>21</td>
<td>Jakarta</td>
<td>Indonesian, Hokkien mixed</td>
<td>2010a</td>
<td>Tokyo</td>
</tr>
<tr>
<td>B</td>
<td>Male</td>
<td>35</td>
<td>Long Iram, East Kalimantan</td>
<td>Indonesian, Banjar</td>
<td>2010a</td>
<td>Tokyo</td>
</tr>
<tr>
<td>C</td>
<td>Female</td>
<td>23</td>
<td>Jakarta</td>
<td>Indonesian</td>
<td>2010a</td>
<td>Tokyo</td>
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<td>D</td>
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<td>Peranakan</td>
<td>2010b</td>
<td>Malang</td>
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<tr>
<td>E</td>
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<td>Balikpapan, East Kalimantan</td>
<td>Indonesian</td>
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<tr>
<td>F</td>
<td>Female</td>
<td>17</td>
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<td>Javanese</td>
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<tr>
<td>G</td>
<td>Female</td>
<td>16</td>
<td>Surabaya, East Java</td>
<td>Peranakan</td>
<td>2010b</td>
<td>Malang</td>
</tr>
<tr>
<td>H</td>
<td>Female</td>
<td>17</td>
<td>Kediri, East Java</td>
<td>Javanese, Indonesian</td>
<td>2010b</td>
<td>Malang</td>
</tr>
<tr>
<td>I</td>
<td>Female</td>
<td>16</td>
<td>Bogor, West Java</td>
<td>Indonesian, Banjar</td>
<td>2010b</td>
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<td>21</td>
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<tr>
<td>K</td>
<td>Female</td>
<td>21</td>
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<tr>
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<td>O</td>
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<td>2011</td>
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</tbody>
</table>

Each sentence 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 counted and analyzed using the cluster analysis (Nagata 2001: 174-179). Each construction was compared to other seven constructions. The Euclidean 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 punya teman is unacceptable (0 point), saya memiliki buku 'book' is acceptable (1 point), and gue punya buku is acceptable (1 point), the Euclidean distance between memiliki and punya is one, as follows:

$$\sqrt{(1-0)^2 + (1-1)^2} = 1$$

The Euclidean distance for every pair of constructions was calculated (see Table 4) and finally the constructions were clustered into groups, as in Figure 2.

Table 4. Distance between constructions

<table>
<thead>
<tr>
<th></th>
<th>X memiliki Y</th>
<th>X mempunyai Y</th>
<th>X punya Y</th>
<th>X ada Y</th>
<th>X ada Y=nya</th>
<th>X ber-Y</th>
<th>X ber-Y-kan Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>X memiliki Y</td>
<td>12.1861</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X punya Y</td>
<td>14.2741</td>
<td>12.5599</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X ada Y</td>
<td>25.1247</td>
<td>25.0948</td>
<td>23.8328</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X ada Y=nya</td>
<td>37.6962</td>
<td>37.9605</td>
<td>38.396</td>
<td>41.5</td>
<td></td>
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<tr>
<td>X ber-Y</td>
<td>36.9425</td>
<td>36.7185</td>
<td>36.7083</td>
<td>41.1096</td>
<td>33.9595</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X ber-Y-kan Z</td>
<td>43.8292</td>
<td>43.715</td>
<td>44.6794</td>
<td>45.1968</td>
<td>38.8909</td>
<td>38.9198</td>
<td></td>
</tr>
<tr>
<td>X Y-an</td>
<td>56.8177</td>
<td>56.8221</td>
<td>56.8551</td>
<td>56.4225</td>
<td>46.7039</td>
<td>43.1799</td>
<td>46.8748</td>
</tr>
</tbody>
</table>

Figure 2. A dendrogram illustrating the clustering of possessive verbal predicate constructions (see Table 4)
5. Result and discussion

The overall data obtained from the consultants' judgements and the findings in the cluster analysis lead to the following four results. First, the hypothesis proposed in Moeljadi (2010), arguing that =nya functions as the 'inalienability' marker, is not the case. X ada Y=nya construction can be divided into three groups and can be included in X ada Y. In the first group, =nya functions as a definite marker and it should appear within a context. For example,

(7) a. Dia ada buku. ‘S/he has a book.’ (own data)
   3SG EXIST book
b. Dia ada buku=nya. ‘S/he has the book.’ (own data)
   3SG EXIST book=NYA

Included in this group are possessees (Y) such as: teman 'friend', buku 'book', anjing 'dog', rumah 'house', uang 'money', pakaian 'clothes', kacamata 'glasses', senjata 'weapon', and selimut 'blanket'. In the second group, =nya may appear without a context. For example,

(7) c. Gue udah ada istri. 'I already have a wife.' (own data)
   1SG PERF EXIST wife
d. Gue udah ada=nya. 'I already have a wife.' (own data)
   1SG PERF EXIST wife=NYA

Included in this group are possessees (Y) such 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', kakak '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 third group, the construction with =nya is not acceptable.

(7) e. Mereka ada rapat. ‘They have a meeting.’ (own data)
   3PL EXIST meeting
f. *Mereka ada rapat=nya. ‘They have a meeting.’ (own data)
   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', and flu 'flu'. Thus, X ada Y=nya can be included in X ada Y and here I may say that the hypothesis Moeljadi (2010) states that =nya functions as an 'inalienability marker' is not correct.

Secondly, in spite of 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-L, 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 'possessives' in X ber-Y-kan Z is expressed in ber-Y-kan but it requires an argument (Z) which is a hyponym or attribute of Y. On the other hand, in the X ber-Y construction, Z is an adjunct, see example 4. Thus, while uban 'grey hair' is acceptable in saya (1SG) beruban, it is not acceptable in saya berubankan ... because it is difficult to regard something as the hyponym or the attribute of uban. X ber-Y-kan Z is also considered as not a typical possessive predicate construction because it requires an argument, which is not a possessee; thus 'presupposes' a relationship of possession, rather than 'establishes' one. Generally, a possessive verbal predicate construction establishes a relationship of possession (Dixon 2010: 265).

Thirdly, the construction X Y-Lan should be considered a peripheral member of the possessive predicate construction, because only jenggot 'beard'-an, jerawat 'pimples'-an, uban 'gray hair'-an, and karat 'rust'-an have the possessive meaning. X Y-an has a very unique meaning and restrictions that make it different from a typical possessive verbal predicate construction as well. From the forty-one nouns mentioned in footnote 14, X Y-an construction is acceptable with 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, pacaran and temanan have the meaning 'reciprocal, indicating that two people stand in the same relationship to each other'. Thus, it is acceptable to say kita (1PL) temanan, or gue (1SG) temanan sama (with) dia (3SG) but gue temanan (without sama ...) is unacceptable. Jantungan has a special meaning 'suffer from heart disease'. Penyakitan means 'often get sick'. Keringatan means 'sweating so much'. Selimutan and kacamataan have the meaning 'to wear...'. Thus, only jenggotan, jerawatan, ubanan, and karatan have the meaning 'having many ...'. I regard X Y-an as peripheral to the domain of possessives in Indonesian.

So far, we can take 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 as possessive verbal constructions, X memiliki Y, X mempunyai Y, X punya Y, X ada Y, and X ber-Y can be roughly clustered into two groups: X memiliki Y, X mempunyai Y, X punya Y, X ada Y in one group and X ber-Y in another group (see Figure 3).

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 4 and Figure 5). I regard that this is because the prefix ber-, attached to the possessee, connects the possessor and possessee more directly than possessive verbs and the existential verb, which intervene between the possessor and possessee. Moreover, the prefix ber- plus possessee has the sense 'property-indicating' or 'adjectival'.

Lastly, I also clustered the possessors in Figure 6 and the consultants in Figure 7. I would like to mention in passing that the person of the possessor does not affect the acceptability of sentences in the possessive predicate construction. I found that there is no reason to divide possessors into singular and
plural number, as well as to divide possessors into first, second, and third personal pronouns. The clustering of consultants shows us an interesting fact that the consultants can be roughly clustered into two groups: the ones who are natives of Jakarta and the others who are not.

Figure 3. 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'
mertua 'father-in-law/'    rumah 'house'
mother-in-law'    uang 'money'
kakak 'elder'    anjing 'dog'
brother/sister'    sesuatu 'something'
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 4. 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)
<table>
<thead>
<tr>
<th>Possessor</th>
<th>17-18 consultants</th>
<th>14-16 consultants</th>
<th>10-13 consultants</th>
<th>4-9 consultants</th>
<th>0-3 consultants</th>
<th>(not having possessive meaning)</th>
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<td>hak 'right'</td>
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</table>

Figure 5. Continuum of possessees in group two (X ber-Y)

![Dendrogram](image_url)

Figure 6. A dendrogram illustrating the clustering of possessors
6. Conclusion

As discussed in Section 5, 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 predicate constructions. 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. Singular, plural, first, second, and third personal pronouns of the possessor do not affect the acceptability of the constructions.

Abbreviations

1, 2, 3 : First, second, and third person
APP : Applicative suffix
AV : Actor voice prefix
CL : Classifier
COP : Copula
DP : Discourse particle
EXIST : Existential verb
IMP : Imperative
LOC : Locative preposition
NEG : Negative
PERF : Perfective aspect
PL : Plural number
REL : Relativizer
SG : Singular number
UV : Undergoer voice prefix
‘-’ indicates a clitic boundary
‘-’ indicates a bound morpheme boundary
References


インドネシア語の所有動詞述語構文

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キーワード：インドネシア語、所有、クラスター分析

要旨

(ムルヤディ・ダヴィド 東京大学大学院修士課程)

16 X, Y, Z はそれぞれ「所有者」、「所有物」、「補語」を表わず。