

QUANTIFIERS IN JAVANESE AND INDONESIAN

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INTRODUCTION

There have been heated discussions for the last ten years or so on the proper analysis of quantifiers, particularly among transformational grammarians. Competing theories use particular analyses to support and/or invalidate basic theoretical claims and assumptions. For instance, generative semanticists such as George Lakoff, Paul Postal, and James McCawley claim that quantifiers are higher predicates. On the other hand, interpretive theorists such as Noam Chomsky and Ray Jackendoff claim that the behaviour of quantifiers is best explained in terms of information available at the surface structures. Recently, Georgette Ioup (1976) attempted to show that grammatical functions (such as subject and direct object) play significant roles in the specification of the scope of quantifiers. Her study can probably be used to support basic theoretical assumptions in relational grammar, a grammatical theory proposed by Paul Postal and David Perlmutter. For an exposition on relational grammar, see the works of Johnson (1974), Lawler (1975), deals with Achenese, and Chung (1976), deals with Indonesian.

This paper deals with various forms and classes of quantifiers in Javanese and Indonesian (Bahasa Indonesia). The focus is on an exposition of the data without any commitment to formal analysis. I will try to present a formal analysis dealing with the syntactic and semantic behaviour of quantifiers in Javanese and Indonesian in the near future. The present work is thus 'theory free', if such situation exists at all. I will, for convenience, occasionally use rewrite rules to summarise and/or generalise certain constructions.

I hope to accomplish two goals: (a) to solicit confirmation, correction, and addition from readers who are working on Javanese, Indonesian, and other Austronesian languages, so that we eventually can accumulate an accurate and coherent picture of the data at hand; and (b) to provide theoretical linguists with theoretically unbiased presentation of data that contain sufficient information so that they will not be misled by a small portion of the data when they are searching for supporting data in these languages. Of course this work cannot claim to be comprehensive or exhaustive, partly due to the nature of quantifiers. They do not belong to one neat class, but across classes. See Akmajian and Lehrer (1976) for an example of a problem in determining the class and relationship of quantifiers and nouns.

Since Indonesian (Bahasa Indonesia) is a national language learned as a second language by most Indonesians (including myself), judgements of well-formedness and degrees of well-formedness vary a great deal, from one regional language speaker to another, and even among the same regional language speakers. Most disagreements centre around what one considers a borrowing may or may not be one for another. Thus, Javanism, Sundaism, and so on are commonly used to explain one's disagreement on the well-formedness of a sentence or construction. I always find it necessary to resort to a regional language such as Javanese in working with Indonesian, although such approach does not guarantee a solid judgement on well-formedness. My training in linguistics makes it impossible for me not to use intuitive knowledge as my source. I think it is safe to say that my intuition about Indonesian is as secure as anybody who speaks the language as a second/national language.

Javanese words and phrases will be written in capital letters, while Indonesian words and phrases will be written in lower case letters. In both cases the new conventional orthography will be used. The new orthography is a uniform orthography adopted by the Indonesian and Malaysian governments in 1973. Ill-formed sentences or forms will be marked with asterisks (*), questionable ones will be marked with a question mark (?), and a combination of the two (*?) will be used to mark constructions that are questionable, but more ill-formed than well-formed. Unless otherwise indicated, sentences are based on my own dialect.

FORMS AND CLASSES

Most works dealing with quantifiers concentrate on the analysis of words and phrases that qualify nouns, such as *'all'*, *'some'* and *'every'*. I will include different types of quantifying words and phrases as much as possible, so that the reader can see the interrelationships between different kinds of quantifying words and phrases to gain an access to some (initial) knowledge of the entire system. It will be up to the reader's theoretical orientation to decide whether the entire system ought to be treated as a unified system or separate sub-systems. Since words in Javanese and Indonesian, and most Austronesian languages, consist of roots (or stems) and affixes, I will present the data on the basis of their forms and make cross references to their classes. The productiveness of derivational processes in these languages provides us with overt relations across different types of quantifying words and phrases, which in other languages may be expressed in completely different forms. In terms of their derivational productiveness, I will start with two major classes to reveal the system, the indefinite quantifiers and the definite quantifiers. The latter contains numerals such as *'two of the men'* and *'two men'*. The rest will be included in the former. The data will be presented in terms of their roots and derivations, one root at a time, followed by a discussion on each form, and a (cumulative) summary of their forms and classes.

A. INDEFINITE QUANTIFIERS

ROOT 1: AKEH (banyak) - *'many'*

	Javanese	Indonesian	Gloss
1.	AKEH	banyak	<i>'a lot; many; much'</i>
2.	AKEH-AKEH-E	ke-banyak-an	<i>'most; the majority'</i>
3.	KA-AKEH-AN	ke-banyak-an	<i>'too much; overdone'</i>
4.	?SAK-AKEH	se-banyak	<i>'as many/much as'</i>
5.	SAK-AKEH-AKEH-E	se-banyak-banyak-nya	<i>'at the most'</i>
6.	-	ber-banyak-banyak	<i>'in great number'</i>

FORM 1: AKEH (banyak) - *'many'*

The root AKEH (banyak) is normally used as a predicate, as in:

(1) BUKUKU AKEH = AKEH BUKUKU

Buku saya banyak = Banyak buku saya

'My books are many = (Many are my books)'

Javanese and Indonesian allow the reversal of subject and predicate, so the basic word order of affirmative simple sentences is either subject-predicate or predicate-subject. There is some semantic consequence (as well as phonological) to this reversal, but we will ignore it for the time being. It is helpful to indicate the two main sentence parts, so I will mark them with a slanted line (/).

When used as a modifier of a noun, Indonesian allows more freedom (in some dialects, but not mine) than Javanese. Consider (2) and (3), and compare the order of Q and N.

- (2) Saya / membeli buku banyak. = Membeli buku banyak / saya.
 I bought books many
 AKU / TUKU BUKU AKEH = TUKU BUKU AKEH / AKU.
 'I bought many books.'

- (3) Saya / membeli banyak buku. = Membeli buku banyak / saya.
 AKU / TUKU *AKEH BUKU. = TUKU *AKEH BUKU / AKU.
 'I bought many books.'

Some dialects allow Q+N in Indonesian, in addition to N+Q which is the only order allowed in Javanese. The Q+N order is not in line with the common order of N+Modifier in both languages. For example BUKU LARANG = buku mahal = 'expensive books'.

Because of the availability of Q+N, surface structures of some constructions as in (4) below can be misleading. The Q and the contiguous N may be either an NP or Q is a predicate and N its subject.

- (4) Banyak anak / membeli buku. = *Membeli buku / banyak anak.
 children
 'Many children buy books.'

I can only get a generic interpretation of (4), and reversal seems to result in an ill-formed construction. Compare:

- (5) MANUK / BISA MABUR. = *BISA MABUR / MANUK.
 bird can fly
 Burung / dapat terbang. = *Dapat terbang / burung.
 'Birds can fly.'

If a determiner is added to Q+N, then Q+N+Det is an NP which is non-generic. The sentence becomes questionable at best.

- (6) *?Banyak anak itu / membeli buku. = ?Membeli buku / banyak anak itu.
 'The many children bought books.'

The situation is complicated by the fact that Javanese allows a special generic sentence with determiner, as in:

- (7) WONG LANANG KUWI / AJA GAMPANG NANGIS.
 people-male-det IMP-neg - easy - cry
'Being a man you should not cry easily.'

The determiner KUWI seems to have the reading of /non-specific/. See Soemarmo (1970 and 1975) for a discussion on determiners. It is not clear to me at the moment why the reversed structure in (6) is better than the subject-predicate counterpart. It seems that the normal subject position does not take Q+N(DET). If a Q+N(Det) sequence occurs, the Q is a predicate, as in:

- (8) Banyak / anak yang membeli buku. = Anak yang membeli buku / banyak.
 AKEH / BOCAH SING TUKU BUKU. = BOCAH SING TUKU BUKU / AKEH.
'(Many are the children who bought books) = The children who bought books are many.'
- (9) *Banyak / anak itu yang membeli buku. =
 *Anak itu yang membeli buku / banyak.
 *AKEH / BOCAH KUWI SING TUKU BUKU. =
 *BOCAH KUWI SING TUKU BUKU / AKEH.

The English translation may be confusing, since English requires *'the'* with relative clause. In Indonesian and Javanese a relative clause makes the head noun specific. Sentence (9) is ill-formed because NP contains Det (itu = KUWI). The only possible interpretation of (9) is when topicalisation is involved. The sentence should be read as follows (double slanted lines (//) after a phrase indicates that the phrase preceding the marker is a topicalised phrase):

- (10) Banyak / anak itu // yang membeli buku. =
 Anak itu // yang membeli buku / banyak.
'The children, the ones who bought books are many.'

We can trace the structure as follows:

- (11) Anak banyak itu / membeli buku.
'The many children bought books.'
 topicalise anak itu: Anak itu // banyak / yang membeli buku.
 reverse: Anak itu // yang membeli buku / banyak.
 reverse: Banyak / anak itu // yang membeli buku.

As stated above, there is less confusion in Javanese due to the unavailability of Q+N which is an NP.

Indonesian also allows banyak to be used as an adverb of frequency, meaning *'often'*.

- (12) Saya banyak melihat anak yang tidak punya baju didesa itu.
I often see children who no have clothes in the village
'I often see children who do not have clothes in the village.'

Javanese AKEH can not be used as a frequency adverb. There is another word in Indonesian that can be used to express 'often'. The word is sering, and its corresponding Javanese word is SERING or KEREK, both can be used as adverb of frequency.

FORM 2: AKEH-AKEH-E (ke-banyak-an) - 'most'

The reduplicated Q plus a suffix E (or ke+Q+an in Indonesian) can be used to modify a noun.

- (13) ?AKEH-AKEHE BOCAH CILIK / ORA SENENG KOPI.
 Kebanyakan anak kecil / tidak suka kopi.
'Most small children do not like coffee.'

The Javanese sentence is better expressed with topicalised subject which is also allowed in Indonesian:

- (14) BOCAH CILIK KUWI // AKEH-AKEHE / ORA SENENG KOPI.
 Anak kecil itu // kebanyakan / tidak suka kopi.
'Small children, most of them do not like coffee.'

Reversal can be applied to (14) to get:

- (15) BOCAH CILIK KUWI // ORA SENENG KOPI / AKEH-AKEHE.
'Small children, they don't like coffee, most of them.'

Second reversal will produce:

- (16) AKEH-AKEHE / BOCAH CILIK KUWI // ORA SENENG KOPI.
'Most of them, the small children do not like coffee.'

Reversal of topic and comment is also allowed to get:

- (17) AKEH-AKEHE / ORA SENENG KOPI // BOCAH CILIK KUWI..
 Kebanyakan / tidak suka kopi // anak kecil itu.
'Most of them, they don't like coffee, those small children.'

Form 2 cannot be used as a predicate. For Indonesian kebanyakan can be used as a predicate but it has a different meaning, and the form is homophonous with form 3 discussed in the next section.

FORM 3: KA-AKEHAN (ke-banyak-an) - 'too much/many'

The form KA+Q+AN (ke+Q+an) is used as a predicate. In addition to kebanyakan, Indonesian has an alternate form terlalu banyak which some speakers prefer better than kebanyakan.

- (18) SEGANE / KAKEHAN. = KAKEHAN / SEGANE.
 Nasinya / kebanyakan. = Kebanyakan / nasinya. =
 Nasinya / terlalu banyak. = Terlalu banyak / nasinya.
'The rice is too much. = (Too much is the rice).'

The form can be used to modify a noun but only to express existentiality or a nominalised adverbialised verb.

- (19) OMAH KUWI / KAKEHAN BOCAH. = KAKEHAN BOCAH / OMAH KUWI.
house
 Rumah itu / kebanyakan anak. = Kebanyakan anak / rumah itu.
 ?Rumah itu / terlalu banyak anak. = *Terlalu banyak anak / rumah
 itu.
'There are too many children in that house.'

The English translation is misleading or not precise. It seems better to translate the copulative sentences in (19) with copula 'have' in English. So (19) means *'The house has too many children'*. When *terlalu banyak* is used, it seems that *rumah itu* ('the house') has to be a location. Compare the following:

- (20)a. ?Dirumah itu / terlalu banyak anak.
 b. Dirumah itu / ada terlalu banyak anak.
 c. Terlalu banyak anak / dirumah itu.
 d. ?Terlalu banyak anak / ada dirumah itu.

Di is a locative marker and *ada* an existential verb. (20a) is questionable because of the deletion of *ada* and *ada* cannot be used in (20d). What happens is that (20) involves two processes: topicalisation and *ada* deletion. Let's trace the structures:

- (21) Basic sentence:
 (a) Ada/terlalu banyak anak dirumah itu.
 (predicate) / (object)
'There are too many children in the house.'

Locative topicalisation:

- (b) Dirumah itu // ada/terlalu banyak anak.
 (see 20b)

ada deletion is not desirable in (b), so (20a) is not so good.

Reversal of topic-comment will give:

- (c) ?Ada/terlalu banyak anak / dirumah itu //.

It seems that *ada* deletion is preferred in (c), so (20c) is acceptable.

Note that the only way to get (20d) is by reversing the topic and the object. This process is generally not available, so (20d) is questionable.

The requirement that form 3 must be used in existential NP is clear when we contrast (21) with sentences containing regular non-existential nounphrase, as in (22).

- (22) *AKU / TUKU KAKEHAN BUKU. = *TUKU KAKEHAN BUKU / AKU.
 *Saya / membeli kebanyakan buku. = *Membeli kebanyakan buku /
 saya.
'I bought too many books.'

Indonesian allows a construction like (22) with *terlalu banyak*:

- (23) Saya / membeli terlalu banyak buku. = Membeli terlalu banyak
 buku / saya.

However, if we resort to Javanese, it seems that *terlalu banyak* modifies the verb instead of the noun. Furthermore, (24) is also available, which clearly shows the adverbial character of *terlalu banyak*.

- (24) Saya / terlalu banyak membeli buku.

In Javanese, the only way to express *'I bought too many books'* is using a nominalised predicate as the subject and the quantifier as a predicate:

- (25) OLEHKU TUKU BUKU / KAKEHAN. = KAKEHAN / OLEHKU TUKU BUKU.
'My buying books (is) too many.'

The predicate describes the quantity of an act, which makes it more of an adverb. If form 3 occurs as a modifier of a noun, it can only modify a nominalised verb, such as:

- (26) BOCAH KUWI / KAKEHAN OMONG.
 Anak itu / kebanyakan bicara.
 Anak itu / terlalu banyak bicara.
'The children, their talk is too much. (= The children talk too much) = The children did too much talking.'

FORM 4: ?SAK-AKEH (se-banyak) - *'as many/much as'*

The form SAK (se)+Q is used to express comparative quantity. The Indonesian form is very general. Se is a prefix indicating single, or unit, and se+ADJ generally means *'as+ADJ+as'*, as in *'as big as'*, *'as long as'*, etc. The corresponding Javanese form is not widely acceptable. A more productive form is PADA+ADJ+E KARO to express *'the same ADJ as'*.

(27) Bukumu itu / sebanyak buku saya. = Sebanyak buku saya / bukumu itu.

?BUKUMU KUWI / SAKAKEH BUKUKU. = ?SAKAKEH BUKUKU / BUKUMU KUWI.

'Your books are as many as my books.'

Javanese prefers (28) to express (27):

(28) BUKUMU KUWI // PADA AKEHE KARO BUKUKU. = PADA AKEHE KARO BUKUKU / BUKUMU KUWI.

'Your books are the same amount as my books.'

Sentence (28) comes from:

(29) AKEHE BUKUMU KUWI / PADA KARO (AKEHE) BUKUKU.

'The amount of your books is the same as (the amount) of my books.'

To get (28), topicalise BUKUMU KUWI in (29). A second topicalisation is possible. Topicalise AKEHE in (28) and you get:

(30) BUKUMU KUWI // AKEHE // PADA KARO BUKUKU.

'Your books, their amount, it's the same as my books.'

FORM 5: SAK-AKEH-AKEH-E (se-banyak-banyak-nya) - *'at the most'*

The form SAK (se) + reduplicated Q + E (nya) is a productive form. In general it means *'as-ADJ-as possible'*, as in *'as big as possible'*, *'as many as possible'*, etc. It is used mostly as a predicate, as in:

(31) TUKUA SAKAKEH-AKEHE. = Belilah sebanyak-banyaknya.

'Buy as many as possible.'

When used to modify a numeral, it acts as a limiting adjective, the equivalent of *'at the most'* in English. For instance:

(32) WONG DESA KUWI / SAKAKEH-AKEHE SEWU.

Orang desa itu / sebanyak-banyaknya seribu.

'The villagers are at the most one thousand.'

Semantically, the surface structure (32) is misleading. It seems that the sentence contains a deleted element *'the amount'* or *'the number'*.

(32) is synonymous with (33):

(33) Jumlah orang desa itu / sebanyak-banyaknya seribu.

'The number/amount of the villagers is at the most 1000.'

Furthermore, constructions such as (34) are also available:

(34) SAKAKEH-AKEHE WONG DESA KUWI / SEWU.

Sebanyak-banyaknya orang desa itu / seribu.

'The most number of the villagers is one thousand.'

(32) seems to have a structure that contains topicalisation of *'the villagers'*, which can be represented as follows:

- (35) WONG DESA KUWI // SAKAKEH-AKEHE / SEWU.
 Orang desa itu // sebanyak-banyaknya / seribu.
'Those villagers, their largest amount is 1000.'

Somewhat similar to the use of form 5 in (34) is in sentences such as:

- (36) SAKAKEH-AKEHE BUKUMU / DURUNG SEPIRAA YEN DIBANDHING KARO BUKUNE
 ALI. = Sebanyak-banyaknya bukumu itu / belum seberapa kalau
 dibandingkan dengan buku Ali.
*'No matter how much/many your books are, it's nothing compared
 to Ali's.'*

The above construction is very productive. In general, the form can be used to express *'no matter how ADJ ...'* as in *'no matter how big ...'*, *'no matter how expensive ...'*, etc.

FORM 6: ber-banyak-banyak - *'in large groups'*

The form *ber* + reduplicated Q does not have a Javanese counterpart and does not occur in my dialect. However, some speakers use expressions such as:

- (37) Mereka datang *berbanyak-banyak*.
'They came in large groups.'

The form is intuitively possible, since forms such as *ber-bondong-bondong* *'in groups'* are available.

FORM 7: AKEH-AKEH (banyak-banyak) - *'so much'*

The complete reduplication of the root is not a productive process. Its limited use can be illustrated by sentences such as:

- (37a) AKEH-AKEH AREP KOK ANGGO APA?
 ?Banyak-banyak akan kamu pakai apa?
'What are you going to do with so much?'

ROOT 2: SETHITHIK (sedikit) - 'a little, a few'

Javanese	Indonesian	Gloss
1. SETHITHIK	sedikit	'a few, a little'
2. SETHITHIK-2-E	?sedikit-2-nya	'at least'
3. KE-SETHITHIK-EN	*ke-sedikit-an	'too few'
4. *SE-SETHITHIK	?se-sedikit	'as few as'
5. SAK-SETHITHIK-2-E	?se-sedikit-2-nya	'as few as possible'
6. -	?ber-sedikit-2	'in small groups' (?)
7. SETHITHIK-2	sedikit-sedikit	'with the least provocation'
8. SETHITHIK-2	sedikit (demi)sedikit	'bit by bit'
9. ORA SETHITHIK-2-A	tidak sedikitpun	'not the least bit'

FORM 1: SETHITHIK (sedikit) - 'a few, a little, a small quantity'

The root form can be used as a predicate, as in:

- (38) BUKUKU / SETHITHIK. = SETHITHIK / BUKUKU.
 Buku saya / sedikit. = Sedikit / buku saya.
 'My books are a few. = (A few are my books).'

As is the case with AKEH (banyak), when used as a noun modifier, some Indonesian dialects allow the alternate Q+N order:

- (39) AKU / TUKU BUKU SETHITHIK. = TUKU BUKU SETHITHIK / AKU.
 Say / membeli buku sedikit. = Membeli buku sedikit / saya.
 'I bought a few books.'
- (40) *AKU / TUKU SETHITHIK BUKU. = *TUKU SETHITHIK BUKU / AKU.
 ?Saya / membeli sedikit buku. = ?Membeli sedikit buku / saya.
 'I bought a few books.'

The Q+N order with sedikit seems worse (at least in my dialect) than the one with banyak. It is even worse when Q+N is in subject position:

- (41) *?Sedikit anak / membeli buku. = *Membeli buku / sedikit anak.
 'A few children buy books.'

I can only get a generic interpretation, if at all, and the reversed order is completely ill-formed. The Q+N+Det is also ill-formed:

- (42) *Sedikit anak itu / membeli buku. = *Membeli buku / sedikit anak itu.
 (intended to be: 'The few children bought books')

The N+Q(Det) forms behave exactly the same as AKEH (banyak):

- (43) BOCAH SETHITHIK / ORA DADI PIKIRAN. = ?ORA DADI PIKIRAN / BOCAH SETHITHIK.

Anak sedikit / tidak jadi beban. = ?Tidak jadi beban / anak sedikit.

'A few children will not be a burden.' (generic)

- (44) BOCAH SETHITHIK KUWI // ORA DADI PIKIRAN.

Anak sedikit itu // tidak jadi beban.

'A few children, (they) are not a burden.'

- (45) SETHITHIK / BOCAH SING TUKU BUKU KUWI. = BOCAH SING TUKU BUKU KUWI / SETHITHIK.

Sedikit / anak yang membeli buku itu. = Anak yang membeli buku itu / sedikit.

'(A few are the children who bought the books). = The children who bought books are a few.'

- (46) *SETHITHIK / BOCAH KUWI SING TUKU BUKU.

*Sedikit / anak itu yang membeli buku.

The following sentences involve topicalisation. (47) is the basic sentence (untopicalised):

- (47) BOCAH SETHITHIK KUWI / TUKU BUKU.

Anak sedikit itu / membeli buku.

'The few children bought books.'

- (48) BOCAH KUWI // SETHITHIK / SING TUKU BUKU.

Anak itu // sedikit / yang membeli buku.

'The children, a few are the ones who bought books.'

- (49) BOCAH KUWI // SING TUKU BUKU / SETHITHIK.

Anak itu // yang membeli buku / sedikit.

'The children, the ones who bought books are a few.'

- (50) SETHITHIK / BOCAH KUWI // SING TUKU BUKU.

Sedikit / anak itu // yang membeli buku.

'A few, the children who bought books.' (or better, literal translation: *'A few, the children, those who bought books.'*)

While banyak can be used as frequency adverb meaning 'often', sedikit does not seem to be available to express 'rarely':

- (51) *saya sedikit membaca buku roman.

'I rarely read a novel.'

FORM 2: SETHITHIK-SETHITHIK-E (?sedikit-sedikit-nya) - 'at least'

The reduplicated Q plus a suffix E (nya) with SETHITHIK (sedikit) breaks the pattern with the same form with AKEH (banyak) as Q. Compare (52) with (13):

- (52) *SETHITHIK-SETHITHIK-E BOCAH CILIK / ORA SENENG KOPI.
 *Sedikit-sedikit-nya anak kecil / tidak suka kopi.
 (cannot be used to express the opposite of 'Most small children do not like coffee')

Similarly, if SETHITHIK-SETHITHIK-E (sedikit-sedikit-nya) is used to replace sentences with AKEH-AKEH-E (ke-banyak-an) in (14)-(17), the sentences with SETHITHIK (sedikit) roots will be ill-formed. Ke-sedikit-nya does not occur in Indonesian.

What is interesting about SETHITHIK-SETHITHIK-E (sedikit-sedikit-nya) is that semantically, the forms are the opposite of SAK-AKEH-AKEH-E (se-banyak-banyak-nya). In other words, the SE- (se-) is considered a prefix corresponding to SAK (se). Compare the following sentences with sentences (31)-(36).

- (53) TUKUA / SETHITHIK-(SE)THITHIK-E.
 Belilah / sedikit-(se)dikit-nya.
 'Buy as little as possible.'

The forms in (53) seem to come from:

- (54) TUKUA / SAK-SETHITHIK-SETHITHIK-E.
 Belilah / se-sedikit-sedikit-nya.

and there seems to be a phonological (surface) rule that prevents identical (closely similar) syllables in succession. The corresponding sentence (32) below is an interesting transition. The Javanese sentence allows both forms, but not the Indonesian one:

- (55) WONG DESA KUWI / SAK-SETHITHIK-SETHITHIK-E SEWU. =
 WONG DESA KUWI / SETHITHIK-SETHITHIK-E SEWU.
 Orang desa itu / *se-sedikit-sedikit-nya seribu. =
 Orang desa itu / sedikit-sedikit-nya seribu.
 'The villagers are at least one thousand.'

Some Indonesian dialects allow further reduction of sedikit-sedikit-nya into sedikit-dikit-nya.

As is the case with AKEH (banyak), in sentences such as (56) seem to imply the deletion of 'the amount':

- (56) Orang desa itu / sedikit-sedikitnya seribu. =
Jumlah orang desa itu / sedikit-sedikitnya seribu.
 (amount/total number)
'The number of villagers is at least one thousand.'

Although Javanese has the corresponding sentence to the first sentence in (56), it does not have the corresponding word for jumlah, the closest is AKEHE which corresponds to Indonesian banyaknya. Some speakers, however, do not accept banyaknya.

- (57) ?Banyaknya orang desa itu / sedikit-sedikitnya seribu.
 AKEHE WONG DESA KUWI / (SAK)-SETHITHIK-SETHITHIK-E SEWU.
'The number/amount of villagers is at least one thousand.'

The form can also be used to express 'no matter how ...':

- (58) SAK-SETHITHIK-SETHITHIKE WONG DESA KUWI / KUDU KOK GATEKAKE.
 ?Sedikit-sedikitnya orang desa itu / harus kau perhatikan.
'No matter how few the villagers are you must pay attention to them.'

The Indonesian sentence does not seem well-formed. A more acceptable expression to express the same meaning is:

- (59) Meskipun (jumlah) penduduk didesa itu (hanya) sedikit, kamu harus memperhatikan mereka.
'Even though the (number of) people in the village is (only) a few, you must pay attention to them.'

FORM 3: KE-SETHITHIK-EN (*ke-sedikit-an) - 'too few'

There is a gap in Indonesian in the form ke+Q+an. While we have ke+banyak+an meaning 'too much' there is no *ke+sedikit+an to express 'too few'. Javanese, on the other hand, has KE-SETHITHIK-EN meaning 'too few' as the opposite of KE-AKEH-AN (= KAKEHAN) meaning 'too many'. It is not surprising that some Javanese would use ke-sedikit-an when they speak Indonesian.

The primary occurrence of this form is as a predicate:

- (60) SEGANE / KESETHITHIKEN. = KESETHITHIKEN / SEGANE.
 Nasinya / terlalu sedikit. = Terlalu sedikit / nasinya.
'The rice is too little.'

When used to modify a noun, the modified noun expresses existentiality:

- (61) KOPI KUWI / KESETHITHIKEN GULA.
 ?Kopi itu / terlalu sedikit gula.
'There is too little sugar in the coffee.' (or, literally:
'The coffee, there is too little sugar (in it).')

Most speakers prefer the predicate of the form, and express (61) as:

- (62) KOPI KUWI // GULANE / KESETHITHIKEN.
 Kopi itu // gulanya / terlalu sedikit.
'The coffee, its sugar is too little.'

Indonesian allows the form to be used in object position modifying the direct object to express sentences such as *'I bought too little sugar'*. However, Javanese does not allow such form.

- (63) Saya / membeli terlalu sedikit gula.
 *AKU / TUKU KESETHITHIKEN GULA.
'I bought too little sugar.'

Javanese expresses (63) with a nominalised predicate:

- (64) OLEHKU TUKU BUKU / KESETHITHIKEN.
'My buying the books is too little.'

The English gloss for (64) may be misleading or not clear. The nominalised form OLEHKU TUKU BUKU expresses the presupposition AKU TUKU BUKU *'I bought books'*. The predicate KESETHITHIKEN describes the amount of books in the presupposition. The predicate may also describe the predicate of the presupposition, as in:

- (65) OLEHKU TUKU BUKU / KEKEREPEN.
'My buying books is too often. = I bought books too often.'

For a possible explanation to the nominalised requirement, see Soemarmo 1977.

The form can be used to modify a nominalised verb, if Q is AKEH, as in (26) above, but it does not seem well-formed with SETHITHIK:

- (66) ?BOCAH KUWI / KESETHITHIKEN OMONG.
 Anak itu / terlalu sedikit bicara.
'The child (has) too little talk. (= The child talks too little.)'

A more acceptable way of expressing (66) in Javanese is by topicalisation:

- (67) BOCAH KUWI // OMONGE / KESETHITHIKEN.
'The child, its talk is too much.'

Sentence (67) comes from:

- (68) OMONGE BOCAH KUWI / KESETHITHIKEN.
'The child's talk is too little.'

Possessive constructions are formed by NP+E+NP, so OMONG is the possessed noun, E the connector, and BOCAH KUWI the possessor.

FORM 4: *SE-SETHITHIK (?se-sedikit) - *'as few/little as'*

In Indonesian se-Adjective is a productive form to express comparative *'as ... as'*, but Javanese does not use SE+Adjective. Instead, it makes use of the form PADA+Adjective+E. However, neither form seems to accept SETHITHIK (sedikit).

(69) *BUKUKU SE-SETHITHIK BUKUMU.

?Buku saya se-sedikit bukumu.

'My books are as few as your books.'

(70) ?BUKUKU PADA SETHITHIK-E KARO BUKUMU.

A better way to express (70) is by a conjunction:

(71) BUKUKU KARO BUKUMU KUWI PADA SETHITHIKE.

'My books and your books are of the same (fewness?).'

The structure in (71) is productively used to express comparison *'the same Adjective-ness'*. The conjunction is formed in a manner similar to the formation of English sentences such as:

(72) *'My books are similar to your books.'* + *'My books and your books are similar.'*

FORM 5: SAK-SETHITHIK-SETHITHIK-E (?se-sedikit-sedikit-nya) - *'as few as possible'*

In discussing form 2, we noted that form 5 can be reduced to form 2 by phonological surface redundancy rule. The uses of form 5 are discussed above.

FORM 6: ?ber-sedikit-sedikit - *'in small groups'*

The form ber+Q occurs only in Indonesian. Ber-banyak-banyak is used by some speakers to express *'in large groups'*, but it does not seem generalisable. Ber-sedikit-sedikit does not seem to be well-formed.

FORM 7: SETHITHIK-SETHITHIK (sedikit-sedikit) - *'with the least provocation'*

The simple reduplication of Q is available with SETHITHIK (sedikit), but not with AKEH (banyak). It is used as an adverb of some sort, similar to frequency adverbs such as *'often'* or *'rarely'*.

(73) BOCAH KUWI / SETHITHIK-SETHITHIK NANGIS.

?Anak itu / sedikit-sedikit menangis.

'The child cries with the least provocation.'

FORM 8: SETHITHIK-SETHITHIK (sedikit (demi) sedikit) - '*bit by bit*'

The simple reduplicated Q can also be used as manner adverb meaning '*bit by bit*'. In Javanese, another form, KANTHI SETHITHIK is also available, and in Indonesian *demi* is normally used to connect the two identical Qs.

(74) *?BOCAH KUWI / MANGAN SEGA SETHITHIK-SETHITHIK.

Anak itu / makan nasi sedikit demi sedikit.

'The child ate the rice bit by bit.'

As stated above, some adverbs are expressed by topicalised construction in Javanese, and for manner adverb, nominalisation of the predicate is necessary. A better way to express (74) in Javanese is:

(75) BOCAH KUWI // OLEHE MANGAN SEGA / SETHITHIK-SETHITHIK. =

BOCAH KUWI // MANGANE SEGA / SETHITHIK-SETHITHIK.

'The child, his manner of eating rice is bit by bit. =

The child, his eating rice is bit by bit.'

The first construction is used more often than the second. Sentences in (75) come from (76) and (77), respectively.

(76) OLEHE MANGAN SEGA BOCAH KUWI / SETHITHIK-SETHITHIK.

'The child's manner of eating rice is bit by bit.'

(77) MANGANE SEGA BOCAH KUWI / SETHITHIK-SETHITHIK.

'The child's eating rice is bit by bit.'

Form 7 can be distinguished from form 8 by the availability of form 8 in topicalised construction. Form 7 cannot occur in topicalised constructions similar to (76) or (77).

(78) *BOCAH KUWI // (OLEHE) NANGISE / SETHITHIK-SETHITHIK.

cannot mean *'The child cries with the least provocation.'*

FORM 9: ORA SETHITHIK-SETHITHIK-A (tidak sedikit-pun) - '*not the least bit*'

The form reduplicated Q + A (pun) can only be used in negative form. The form cannot be used with root 1, AKEH (banyak), but it can be used with other limited number of Qs and adjectives.

(79) BOCAH KUWI ORA MANGAN SETHITHIK-SETHITHIKA.

Anak itu tidak makan sedikitpun.

'The child did not eat at all.'

In constructions where topicalisation is allowed, the negative ORA (tidak) must go together with reduplication Q + A (pun).

- (80) Tidak sedikitpun // anak itu / diberi nasi.
 ?ORA SETHITHIK-SETHITHIK-A // BOCAH KUWI / DIWENEHI SEGA.
 (?) *'Not even a little bit was the child given rice.'*

In any case, whether the negative is immediately following Q or not, the negative morpheme must be there.

- (81) *BOCAH KUWI / MANGAN SETHITHIK-SETHITHIK-A.
 *Anak itu / makan sedikitpun.

Topicalised sentence (80) comes from:

- (82) Anak itu / tidak diberi nasi sedikitpun.
'The child was not given rice at all (not even a little).'

The subject of (82) can be topicalised to get:

- (83) Anak itu // tidak sedikitpun (dia) diberi nasi.
'The child, not even a little was he given rice.' (?)

SUMMARY

Before we include other roots, it may be useful at this juncture to compare the formation and classes derived from roots 1 and 2.

(a) Semantically, root 1 is the opposite of root 2, so the negated form of one is synonymous with the positive form of the other. For example, ORA AKEH (tidak banyak) is the opposite of SETHITHIK (sedikit).

(b) In terms of their morphological processes, there are shared processes across roots in the two languages. The charts below display the similarities and differences of the two roots.

Formation	Root 1	Root 2
1. UNAFFIXED Unaffixed	AKEH banyak	SETHITHIK sedikit
2. ROOT-ROOT-E (root-root-nya) ke-root-an	AKEH-AKEH-E *banyak-banyak-nya ke-banyak-an	SETHITHIK-SETHITHIK-E sedikit-sedikit-nya *ke-sedikit-an
3. KE-root-EN ke-root-an	KE-AKEH-EN ke-banyak-an	KE-SETHITHIK-EN *ke-sedikit-an
4. (SE-ROOT) PADA-ROOT-E se-root	*SE-AKEH PADA-AKEH-E se-banyak	*SE-SETHITHIK PADA-SETHITHIK-E se-sedikit
5. SAK-ROOT-ROOT-E se-root-root-nya	SAK-AKEH-AKEH-E se-banyak-banyak-nya	SAK-SETHITHIK-SETHITHIK-E *se-sedikit-sedikit-nya
6. - ber-root-root	- ber-banyak-banyak	- *ber-sedikit-sedikit

Formation	Root 1	Root 2
7. ROOT-ROOT root-root	AKEH-AKEH ?banyak-banyak	SETHITHIK-SETHITHIK sedikit-sedikit
8. ROOT-ROOT root (demi) root	*AKEH-AKEH *banyak demi banyak	SETHITHIK-SETHITHIK sedikit demi sedikit
9. NEG-ROOT-ROOT-A NEG-root-pun	*ORA AKEH-AKEH-A *tidak banyak-pun	ORA SETHITHIK-SETHITHIK-A tidak sedikit-pun

The forms above constitute different classes:

Formation	Possible classes with Root 1	Possible classes with Root 2
1. UNAFFIXED Unaffixed	PRED; NQ pred; nq; adv	PRED; NQ pred; nq
2. ROOT-ROOT-E ke-root-nya	NQ nq	NQ -
3. KE-ROOT-EN ke-root-en	PRED; N'Q; NOM.Q pred; n'q	PRED; N'Q; NOM.Q -
4. PADA-ROOT-E se-root	COMPAR. compar.	COMPAR. -
5. SAK-ROOT-ROOT-E se-root-root-nya	NP/INFINITE AMOUNT np/infinite amount	NQ nq
6. - ber-root-root	- nq	- -
7. ROOT-ROOT root-root	INFINITE AMOUNT ?infinite amount	ADV-FREQUENCY adv-frequency
8. ROOT-ROOT root-demi-root	- -	ADV-MANNER adv-manner
9. NEG-ROOT-ROOT-A NEG-root-pun	- -	INDEFINITELY SMALL/NP indefinitely small/np

ROOT 3: PIRA (berapa) - 'some indefinite amount'

To facilitate comparison with the two roots presented above, the nine processes above will be used as a frame of reference.

Javanese	Indonesian	Gloss
1. PIRA	berapa	'indefinite/unknown amount'
2. PIRA-PIRA-NE	*berapa-berapa-nya	'the amount'
3. *KE-PIRA-(N)EN	*ke-berapa-an	-
4. ORA SE-PIRA (A)	tidak se-berapa	'not much'
5. ?SAK-SE-PIRA-PIRA-NE	*se-berapa-berapa-nya	'no matter what amount'

- (87) ALI KUWI // OLEHE TUKU BUKU / PIRA? = OLEHE TUKU BUKU / ALI KUWI // PIRA? = PIRA / ALI KUWI // OLEHE TUKU BUKU?
'That Ali, how many/much is (his buying books)?'
- (88) PIRA / BUKU SING DITUKU ALI KUWI? = BUKU SING DITUKU ALI KUWI / PIRA?
 Berapa / buku yang dibeli Ali itu? = Buku yang dibeli Ali itu / berapa?
'How many are the books which Ali bought?'
- (89) *ALI / TUKU BUKU PIRA REGANE?
 *Ali / membeli buku berapa harganya?
 (lit. *'Ali bought books for what price/how much?'*)
- (90) PIRA / REGANE BUKU SING DITUKU ALI KUWI?
 Berapa / harga(nya) buku yang dibeli Ali (itu)?
'What is the price of the book(s) which was bought by Ali?'

In general, questions with question words are formed by making a statement with the questioned part expressed by a pro-form. For example, compare:

- (91) AKU MANGAN SEGA. *'I ate rice.'*
 AKU MANGAN APA? *'(I ate what?) = What did I eat?'*
 AKU MANGAN MAU ESUK. *'I ate this morning.'*
 AKU MANGAN KAPAN? *'(I ate when?) = When did I eat?'*

Following the general rule for the formation of interrogatives with question words, (86) is available. In Javanese, however, constructions like (86) with PIRA are used more as echo questions, although they are also used as true questions. Javanese makes use of presuppositional expressions, such that questions normally require indication of presupposition (see Soemarmo 1977 for more on this). Sentences such as (87) are used more than (88). You must nominalise the predicate. OLEHE TUKU BUKU *'his buying books'* is the nominal form of TUKU BUKU *'bought books'*. Another common construction is where PIRA is used as an attribute of an NP, as in (85) and (88). With REGANE (*harganya*) *'its price'*, the construction PIRA (*berapa*) + NP seems required. The general formation of interrogatives with question words does not apply to PIRA REGANE (*berapa harganya*), since (89) is ill-formed. It has to be converted to (90). Only this last requirement applies to both languages. The indication of presupposed expression is not required in Indonesian.

FORM 2: PIRA-PIRA-NE (?*berapa-berapa-nya) - *'the exact amount'*

The reduplication of the root plus E (nya) has a limited use. The N is added by a general rule: if E is added to a word that ends in a vowel, N is inserted. Indonesian does not seem to have this form.

(92) AKU / ORA NGERTI PIRA-PIRA-NE.

'I don't know the exact/actual amount.'

(93) AJA MBGK KANDAKAKE PIRA-PIRANE.

'Don't tell (anybody) how much it is/how many they are.'

I am not sure whether the negative morpheme is a requirement. The above sentences do not seem to be well-formed without negative morphemes.

(94) ?AKU / NGERTI PIRA-PIRA-NE.

'I know how much it is/how many they are.'

?KANDANANA / PIRA-PIRA-NE.

'Tell (someone) how much it is/how many they are.'

FORM 3: *KE-PIRA-NEN (*ke-berapa-an)

The form KE-Q-EN (ke-Q-an) generally designates an excessive attribute/quality/quantity, such as *'too big'*, *'too much'*, and *'too high'*. It seems semantically impossible to talk about *'an excessive indefinite amount, size, etc.'*. The availability of the form seems to be prevented by a general semantic constraint.

FORM 4: ORA SE-PIRA-(A) (tidak se-berapa) - *'not that much/many'*

The form SE (se) -Root 3- (A) must be used with a negative morpheme. It is used as a predicate, and the subject must be a particular noun-phrase or nominal phrase.

(95) *OMAHE / SE-PIRA(A).

*Rumahnya / se-berapa.

(ill-formed without negative)

(96) OMAHE / ORA SE-PIRA(A).

Rumahnya / tidak se-berapa.

'His/her house isn't that much.'

The meaning of *'that much'* can be *'having low value'* or *'having low (aesthetic) quality'*. In Javanese, the suffix A can be dropped, probably due to its phonological shape, which is identical to the last sound in the root.

The requirement of NP or nominal subject can be illustrated by sentences such as:

- (97) OLEHE TUKU BUKU / ORA SEPIRA(A).
'He didn't buy that many books.' (lit. *his buying books is not that many.*)
- (98) Buku yang dibelinya / tidak se-berapa.
 BUKU SING DITUKU / ORA SEPIRA(A).
'The books which he bought aren't that many/didn't cost that much.'

Only Javanese has and makes use of nominalised predicate such as in (97). Both languages use relative clause constructions as in (98). Even though the form is used to specify the quantity or quality of the object, it can not directly modify the NP-object.

- (99) *ALI / TUKU ORA SE-PIRA(A) BUKU.
 *Ali / membeli tidak se-berapa buku.
'Ali bought not that many books.'

FORM 5: ?SAK-SE-PIRA-PIRA-NE (*se-berapa-berapa-nya)

The form SAK (se) -reduplicated root- NE (nya) does not seem to take PIRA (berapa). Indonesian definitely does not have this form. The Javanese form, if it is available at all, seems to be a variant of form 2 (PIRA-PIRA-NE).

- (100) AKU ORA NGERTI SAK-SE-PIRA-PIRA-NE. = AKU ORA NGERTI PIRA-PIRA-NE.
'I don't know the actual amount.'

While PIRA-PIRA-NE is ambiguous, it can mean *'the actual amount'* or *'the actual cost/price'*, SAK-SE-PIRA-PIRA-NE seems to have only the first meaning.

This form may also be used by some to express what form 7 (discussed below) is expressing.

FORM 6: (*ber-berapa-berapa)

The form ber+reduplicated root is used with limited number of Q, such as banyak to express *'in ... group'* such as *'in a large group'*. As is the case with form 3, this form is prevented by a general semantic constraint.

FORM 7: PIRA-PIRA(A) (*berapa-berapa) - *'whatever amount/cost'*

The Javanese forms 2, 5, 7, and 9 have some usage in common, and so in some cases they are interchangeable. It is definitely true that the

reduplicated form is not available in Indonesian, but form 9 (berapa+pun) may fit in either forms mentioned above. I have not been able to sort out the subtle distinctions of these forms. It may take more research involving complex constructions to reveal the difference. The uses of PIRA-PIRA (sometimes the suffix A can be added) can be illustrated by the following:

- (101) PIRA-PIRA (A) TUKUNEN.

'No matter how many/much, buy it.'

- (102) BOCAH KUWI / ORA PIRA-PIRA.

'The child does not care/has no mercy.' (i.e. ignores the amount of suffering as a consequence of his act)

- (103) MBOK SING PIRA-PIRA.

'Show some consideration. / Be considerate.' (i.e. beware of the amount of suffering your action may result in)

- (104) *TUKUA PIRA-PIRA BUKU.

'Buy any amount of books.'

As is the case with form 2, this form cannot be used to modify a noun, or used as a noun modifier.

FORM 8: ORA PIRA-PIRA (*tidak berapa-berapa) - *'without mercy'*

The form negative+reduplicated root is used as an idiom whose meaning can be derived from PIRA. See sentence (102) above for an illustration. This form does not occur in Indonesian.

FORM 9: ?SE-PIRA-PIRA-A (berapa-pun) - *'regardless of the amount'*

The form SE+reduplicated root+A (root+pun) is used to express unlimited large/small amount of cost. It can be used as a predicate only, not a modifier.

- (105) SE-PIRA-PIRA-A TAMPANANA.

'No matter how big/many/much it costs, take it.'

To get a better feeling about the meaning of the form, consider the productive derivation using SE + NP:

- (106) SE-CANGKIR *'a cup'*
 SE-BUNGKUS *'a bag (wrapper)'*
 SE-KILO *'one kilogram'*

So, SE-PIRA-PIRA is used to refer to indefinite quantity in terms of measurements such as *'cup'*, *'bag'*, *'kilogram'*, etc. In other words,

PIRA-PIRA is the pro-form of measurement NP. The Indonesian *berapa-pun* is used in a similar way:

- (107) *Berapa-pun terimalah.*
'No matter how many/much, take it.'

The reduplicated forms of many roots are used to express pro-forms. For example:

- (108)a. KOWE / TUKU APA?
 Kamu / membeli apa?
 (lit. 'You bought what?')
- b. ORA APA-APA.
 Tidak apa-apa.
 (lit. 'not anything')
- (109)a. KOWE / AREP NYANG ENDI?
 Kamu / akan pergi kemana?
 (lit. 'You will go where?')
- b. ORA NYANG ENDI-ENDI.
 Tidak kemana-kemana.
 (lit. 'not anywhere')
- (110)a. KOWE / AREP METHUK SAPA?
 Kamu / akan menjemput siapa?
 'You will pick up who?'
- b. DUDU SAPA-SAPA.
 Bukan siapa-siapa.
 'Nobody.' (lit. not anybody)

FORM 10: (be-berapa) - 'some'

Javanese does not have a word to express 'some' as in 'some books'. Indonesian has the form 'partial reduplication of root' *be-berapa*. The corresponding Javanese *PI-PIRA does not occur. This form is used mostly as noun modifier.

- (111) Saya / membeli beberapa buku.
'I bought some books.'

Unlike root 1 (*banyak* 'many'), this form can only occur preceding the modified noun. The reverse order is ill-formed:

- (112) *Saya / membeli buku beberapa.

The form can be combined with some words that can combine with numerals (see the section on Definite Quantifiers below), such as:

(113) Saya / makan tiga kali sehari.

'I eat three times a day.'

Saya / makan beberapa kali sehari.

'I eat some/many times a day.'

(114) Saya / membeli tiga buah pisang.

'I bought three bananas.

Saya / membeli beberapa buah pisang.

'I bought some bananas.'

Words such as buah in (114) are called Classifiers. They will be discussed separately below.

Beberapa can be used without classifiers, but the deletion of qualifiers seems freer with countable than uncountable nouns.

(115)a. Saya membeli beberapa buah pisang.

b. Saya membeli beberapa kaleng minyak. ('cans of oil')

c. Saya membeli beberapa pisang.

d. ?*Saya membeli beberapa minyak.

FORM 11: PIRA-NG-NP (berapa-NP) - 'how many/much NP'

The root can be combined with a quantifier, adjective, or words denoting a measurement. A linking sound NG is added in Javanese to form the compound.

(116) KOWE / AREP LUNGA PIRANG DINA?

Kamu / akan pergi berapa hari?

'You will go for how many days?'

(117) PIRA AKEHE BOCAH KUWI?

Berapa banyak(nya) anak itu?

'How many are the children?'

(118) (SE)PIRA GEDHENE GUNUNG KUWI?

(?Se)berapa besar gunung itu?

'How big is the mountain?'

FORM 12: PIRA-NG-PIRA-NG (banyak) - 'many'

The Javanese form ROOT-NG-ROOT-NG is synonymous with root 1 (AKEH), but this form seems to imply 'an unexpected large amount' or 'an unusually large amount'. Indonesian does not seem to make the distinction.

(119) ANAKE / PIRANG-PIRANG.

ANAKE / AKEH.

'His/her children are many.'

The first sentence in (119), unlike the second, is not a matter-of-fact statement. It is either derogatory or an indication of surprise. Derogatory and surprise do not seem to go well with command or request. In other words, (120) is ill-formed because one cannot talk about *'request surprisingly'*.

(120) *TUKUA SING PIRANG-PIRANG.

Compare (120) with:

(121) TUKUA SING AKEH.

'Buy many.'

I am not sure whether English expressions *'many'* and *'plenty'* have a similar distinction as AKEH and PIRANG-PIRANG.

FORM 13: PIRA-NG-PIRA-NG-NP (ber-NP-NP) - *'plenty of NP'*

Form 12 can be combined with NP that can be combined with form 11, in Javanese. Indonesian makes use of ber-reduplicated NP.

(122)a. BUKUKU / PIRANG-PIRANG.

Buku saya / banyak.

'My books are plenty.'

b. BUKUKU / PIRANG-PIRANG KRANJANG.

Buku saya / ber-keranjang-keranjang.

'My books are many baskets. (= I have baskets of books).'

Just as AKEH is not completely synonymous with PIRANG-PIRANG, the Indonesian banyak does not imply *'excessive amount'*. Note the word order in (122a) in Javanese. When used as a predicate expressing quantity, the order is Q+NP. However, when Q is used as a noun modifier, the order is the reverse:

(123)a. AKU / TUKU BUKU PIRANG-PIRANG.

'I bought plenty of books.'

b. *AKU / TUKU PIRANG-PIRANG BUKU.

c. AKU / TUKU BUKU PIRANG-PIRANG KRANJANG.

'I bought baskets of books.'

The form does not seem to behave like AKEH in that AKEH can be used as a predicate whose subject is a nominalised predicate, but PIRANG-PIRANG is questionable, if not completely ill-formed.

(124)a. OLEHEKU MANGAN / AKEH.

'I ate a lot.' (lit. *my eating is much*)

b. ?OLEHKU MANGAN GEDANG / PIRANG-PIRANG.

'I ate a lot of bananas.' (lit. *my eating bananas is many*)

FORM 14: (KA)PING PIRA (berapa kali) - *'a number of times'*

The combination of (KA)PING (kali) and root is a productive process with numeral. It can also be applied to some of the derived forms above.

(125) KOWE / MANGAN (KA)PING PIRA?

Kamu / makan berapa kali?

(lit. *'You eat how many times?'*)

(126) KOWE / MANGAN (KA)PING PAPAT.

Kamu / makan empat kali.

'You eat four times.'

(127) KOWE / MANGAN (KA)PING PIRANG-PIRANG.

Kamu / makan beberapa kali. = Kamu / makan ber-kali-kali.

'You eat many times.'

The difference between AKEH and PIRANG-PIRANG shows up again when (KA)PING is used.

(128) *KOWE / MANGAN (KA)PING AKEH.

to mean: *'You eat many times.'*

Indonesian allows an alternate form of beberapa kali in (127), namely, ber-kali-kali. This is a productive process. Compare:

(129)a. Saya / membeli beberapa cangkir kopi. =

Saya / membeli bercangkir-cangkir kopi.

'I bought many cups of coffee.'

b. Saya / berjalan beberapa mil. =

Saya / berjalan ber-mil-mil.

'I walk many miles.'

The form ber-NP-NP is form 13 above, so that it implies excessive amount. (129a) with ber-NP-NP is better translated as *'I bought cups (and cups) of coffee.'* Similarly, (129b), the second sentence is better translated as *'I walk miles (and miles).'* It is interesting to note that beberapa in Indonesian means *'some'* or *'indefinite amount'*, but when combined with an NP it means *'many'*, which is very similar to English *'some books'* although in English it does not seem to always

mean 'many books'. Furthermore, beberapa kali means 'many times', even though the notion 'indefinite number of times' is there, the emphasis is on 'numerous times'. How this differs from English 'indefinite some' and 'definite some', is not clear to me.

FORM 15: TIME-PIRA (TIME-berapa) - 'what-TIME'

The root can be combined with a word expressing time. However, PIRA (berapa) is only used when the expected answer includes a numeral. APA (apa) is used when the expected answer is a name such as 'Monday' or 'January'.

- (130) JAM } PIRA / SAIKI?
TANGGAL }
TAUN }
- Jam }
Tanggal } berapa / sekarang?
Tahun }
- 'What {
time }
date } is now/it?'
year }

- (131) DINA }
WULAN } APA / SAIKI?
*TAUN }
- Hari }
Bulan } apa / sekarang?
*Tahun }
- 'What {
day }
month } is now/it?'
year }

ROOT 4: KABEH (semua) - 'all'

Javanese	Indonesian	Gloss
1. KABEH	semua	'all'
2. KABEH-E	semua-nya	'all together' (?)
3. *KABEH-KABEH-E	*semua-semua-nya	*'at the (all)'
4. *KE-KABEH-EN	*ke-semua-an	*'too (all)'
5. *(SE-KABEH) *PADA KABEH-E	*se-semua	*'as (all) as'
6. *SAK-KABEH-KABEH-E	*se-semua-semua-nya	*'at the (all)'
7. -	*ber-semua-semua	*'in (all) groups'
8. KABEH-KABEH	*semua-semua	'all that one does'
9. -	*semua demi semua	*' (all) by (all)'
10. *ORA KABEH-KABEH-A	*tidak semua-pun	*'not the (all)'

As can be seen from the above diagram, root 4 is not as productive as the ones presented above.

FORM 1: KABEH (semua) - 'all'

The root form can only be used as a noun modifier. In the surface structure, the form may appear as something other than a noun modifier, but it is a result of a process recently known as Q-floating (see, for example, Keyser and Postal 1976).

(132) *BOCAH KUWI / KABEH.

*Anak itu / semua.

*'The children are all.'

(133) KABEH BOCAH KUWI / AREP LUNGA.

Semua anak itu / akan pergi.

'All the children will go.'

(134) KABEH BOCAH / SENENG PERMEN.

Semua anak / suka gula-gula.

'All children like candy.'

Topicalisation can be applied to (133) and (134) to get (135) and (136), respectively:

(135) BOCAH KUWI // KABEH / AREP LUNGA.

Anak itu // semua / akan pergi.

'The children, (they) all will go.'

(136) BOCAH KUWI / KABEL / SENENG PERMEN.

Anak (itu) // semua / suka gula-gula.

'Children, (they) all like candy.'

FORM 2: KABEH-E (semua-nya) - 'all together'

The suffixed E (nya) form is syntactically a noun expressing a superordinate class, similar to 'to amount, the size', etc.

(137) BUKU KUWI // KABEH-E / PIRA?

Buku itu // semua-nya / berapa?

'The books, how much are they all together?'

Topicalisation seems obligatory, since the source (untopicalised) sentence seems ill-formed:

(138) *KABEH-E BUKU KUWI / PIRA?

*Semua-nya buku itu / berapa?

*'How much are the all-together books?'

To reflect the noun-ness of the form, maybe a better translation is '*the total amount*' or '*the entire amount*'.

FORMS 3, 4, 5, 6, 7, 9, and 10:

These forms are not available since they are semantically impossible. The semantic constraints on these forms seem to be universal, but I do not know how to state them in a general way, at the time.

FORM 8: KABEH-KABEH (*semua-semua) - '*all that one does (?)/anything*'

The reduplicated root, which is only available in Javanese, refers to a generic noun, act, etc. The closest Indonesian form is *apa saja* which corresponds more closely to Javanese *APA WAE* '*whatever*'.

- (139)

KABEH-KABEH	}	/ ORA OLEH.
APA-APA		
APA WAE		
*Semua-semua	}	/ tidak boleh.
?Apa-apa		
Apa saja		

'All that one does is not allowed.'

- (140)

KABEH-KABEH	}	/ DIPANGAN.
APA-APA		
APA WAE		
*Semua-semua	}	/ dimakan.
?Apa-apa		
Apa saja		
Apa-pun		

'All/anything/every single thing(s) were eaten.'

ROOT 5: SABEN (setiap; masing-masing) - '*every; each*'

Javanese	Indonesian	Gloss
1. SABEN	setiap	'every'
2. SABEN-E	(biasanya)	'usually'
3. SABEN-SABEN	(kadang-kadang)	'sometimes'
4. (SIJI-SIJI-NE)	masing-masing	'each'
5. KE-SABEN-EN	(terlalu sering)	'too often'

The semantically related concepts '*every*', '*sometimes*', etc. are related in their forms in Javanese, but not in Indonesian. As is the case with root 4 (KABEH), the root is not as productive as the earlier roots.

FORM 1: SABEN (setiap) - 'every'

The Javanese SABEN is used both for 'every' and 'each', but Indonesian has two separate words, setiap and masing-masing. When explicit distinction is needed, Javanese may use SIJI-SIJINE to express 'each' (see form 4).

(141) SABEN BOCAH / AREP LUNGA.

Setiap anak / akan pergi.

'Every child will go.'

(142) BOCAH KUWI / TURU SABEN AWAN.

Anak itu / tidur setiap siang.

'The child sleeps every afternoon.'

Even though plurality need not be overtly expressed, both languages use complete reduplication to overtly express plurality. If plural is overtly expressed, then it cannot be used with SABEN (setiap).

(143) *SABEN BOCAH-BOCAH / AREP LUNGA.

*Setiap anak-anak / akan pergi.

**'Every children will go.'*

The above constraint applies to other Qs:

(144)

*KOWE / DUWE BUKU-BUKU

{ AKEH.
SETHITHIK.
PIRA?
PIRANG-PIRANG.
LIMA.

*Kamu / punya buku-buku

{ banyak.
sedikit.
berapa?
(banyak sekali).
lima.

'You have { $\begin{matrix} \text{many} \\ \text{a few} \\ \text{how many} \\ \text{numerous} \\ \text{five} \end{matrix}$ } books.'

The ill-formedness of (143) is the result of a contradictory feature in SABEN (setiap) and plural noun, where SABEN (setiap) refers to singular item. The ill-formedness of (144) is the result of redundancy. These languages do not allow plural markers when a quantifier expressing plurality is already available.

FORM 2: SABEN-E ((biasanya)) - 'usually'

The Javanese SABEN-E is related to SABEN in a manner that 'usually' can be interpreted as 'in every previous occasion'. The Indonesian

form *biasanya* comes from *biasa* meaning 'ordinary'. Sometimes the Javanese form is used as a compound form with *ADAT* meaning 'tradition'. As the meaning indicates, the form is used as an adverb of frequency or manner.

- (145) TANDANGANA KAYA (ADAT) SABEN-E.
 Kerjakanlah seperti biasanya.
'Do it as usual/as is usually done.'

- (146) SABEN-E / PIRA?
 Biasanya / berapa?
'Usually, how much?'

FORM 3: SABEN-SABEN ((kadang-kadang)) - 'sometimes'

The Javanese SABEN-SABEN is related to SABEN in a manner that 'sometimes' can be interpreted as 'every so often'. The Indonesian kadang-kadang is a root form, it does not come from the non-existing *kadang. The form is an adverb of frequency.

- (147) BOCAH KUWI / SABEN-SABEN TURU AWAN.
 Anak itu / kadang-kadang tidur siang.
'The child sometimes sleeps in the afternoon.'

The Javanese SABEN-SABEN and the Indonesian kadang-kadang are not exactly the same, since Indonesian also makes use of *sering* meaning 'often'. It seems that SABEN-SABEN can be used for both or the meaning is probably in between. Javanese has *KEREP* meaning 'often'. The diagram below may reflect the meaning of SABEN-SABEN more precisely.

- (148) (never) < (sometimes) (often) > (always)
 - < SABEN-SABEN KEREP > -
 - < kadang-kadang sering > -

The use of SABEN-SABEN in sentences such as (149) seems neutral with regard to 'often' or 'sometimes':

- (149) BOCAH KUWI, SABEN-SABEN TILIKANA.
'That child, once in a while (?), visit him.'

FORM 4: (SIJI-SIJI-NE) (masing-masing) - 'each'

The Javanese word to express 'each' is derived from a numeral *SIJI* 'one' and will be discussed later, since it belongs to Definite

Quantifiers. As stated above, Javanese does not necessarily distinguish 'each' and 'every'.

(150) Masing-masing anak / mendapat satu rupiah.

'Each child gets one rupiah.'

The form masing-masing is a root form, it does not come from the word *masing. As is the case with setiap, overt pluralisation is not allowed, meaning that setiap and masing-masing can only modify a singular noun.

(151) *Masing-masing anak-anak itu / mendapat satu rupiah.

**'Each children gets one rupiah.'*

The form can also 'float'. See Q-floating in Part II.

FORM 5: KE-SABEN-EN ((terlalu sering)) - 'too often'

The form KE-Q-EN in Javanese follows a general form, where KE--EN affixation carries the meaning of 'too-Q'. Recall the comparison of meanings in (148) above. With KE-SABEN-EN, the meaning is closer to KEREP. As a matter of fact, some speakers will use KE-KEREP-EN instead of KE-SABEN-EN.

(152) BOCAH KUWI / KE-KEREP-EN TILIK KANCANE.
SABEN

Anak itu / terlalu sering menengok temannya.

'The child visits his friends too often.'

As is the case with most adverbs in Javanese, the frequency adverb KE-KEREP-EN or KE-SABEN-EN is used more often with nominalised predicate constructions such as:

(153) BOCAH KUWI // OLEHE TILIK KANCANE / KE-KEREP-EN.
SABEN

'The child, his visiting (of?) his friends is too often.'

B. DEFINITE QUANTIFIERS

Definite quantifiers refer to quantifiers that contain numerals. In terms of derivational productivity and semantic consequence of derivational processes, I will distinguish two roots: Root 1 is SIJI ('satu') 'one', and Root 2 is any numeral other than 'one'.

Since the structure of numerals is described in any language textbook or grammar, I will not describe it here.

ROOT 1: SIJI (satu) - 'one'

Javanese	Indonesian	Gloss
1. SIJI	satu	'one'
2. SIJI-SIJI	satu (per/demi) satu	'one by one'
3. SIJI-SIJI (=/nasal/-SIJI)	?satu-satu	'one each'
4. SAK-WIJI-NE	sesuatu	'indefinite one/some'
5. (SING) SIJI-NE	yang satu (?nya)	'the other one'
6. SIJI-SIJI-NE	satu-satu-nya	'the only one'
7. SIJI-SIJI-NE	masing-masing	'each (one)'
8. ((KA)PING SIJI) = SEPISAN	satu } kali se	'one time (= once)'
9. -	ke-satu	'the first'
10. -	ke-satu-an	'a unit'
11. SALAH SIJI	salah satu	'one of them'
12. -	ber-satu	'united'
13. IJI-AN	(sendiri)	'alone/by oneself'

FORM 1: SIJI (satu) - 'one'

The root SIJI (satu) is used as a noun quantifier or a predicate which only takes a quantity noun as its subject. The initial S (s)- may be a prefix if we compare with forms such as IJEN, SAKWIJINE, NGIJEN (instead of NYIJEN) in Javanese, or forms such as sesuatu and piatu in Indonesian. I am not familiar with their historical development.

- (154) AKU / DUWE BUKU SIJI.
 Saya / punya buku satu.
 'I have one book.'

Indonesian allows the reverse order in some dialects, but not Javanese.

- (155) Saya / punya satu buku.
 *AKU / DUWE SIJI BUKU.

The quantifier can be used as a predicate in Javanese by predicate nominalisation:

- (156) OLEHKU TUKU BUKU / SIJI.
 'My buying books is one.'

In both languages, the form can be used as a predicate with countable noun (plural) as subject.

(157) BUKUKU / (MUNG) SIJI.

Buku saya / (hanya) satu.

'My book is (only) one.'

The use of MUNG (hanya) in (157) will make the sentence semantically more appropriate. Sentences such as (158) is grammatical but semantically odd (as odd as the English sentence seems to be):

(158) BUKU KUWI / SIJI.

Buku itu / satu.

'The book is one.'

The word SIJI, and probably also satu, means 'a piece' or 'one item' when used in constructions such as:

(159) BUKU KUWI // SIJI / LIMANG RUPIAH.

Buku itu // ?satu / lima rupiah.

'The books, one is five rupiahs.'

Even though (159) is clearly a topicalised construction, its source is not clear. Following a normal topicalisation rule, it should come from (160), but it has a different meaning from (159).

(160) BUKU SIJI KUWI / LIMANG RUPIAH.

?Buku satu itu / lima rupiah.

'That one book is five rupiahs.'

Another possible source is a generic sentence:

(161) BUKU SIJI / LIMANG RUPIAH.

?Buku satu / lima rupiah.

'A book is five rupiahs.'

FORM 2: SIJI-SIJI (satu-per/demi-satu) - 'one by one'

The reduplicated root is used primarily as a manner adverb.

(162) MLEBUA SIJI-SIJI.

Masuklah satu demi satu.

'Come in one at a time/one by one.'

In Indonesian, in addition to satu-demi-satu, some speakers use satu-per-satu or satu-satu. The morpheme per may be a borrowing, although it appears in words such as per-tama and se-per-tiga meaning '(the) first' and 'one third' respectively.

The reduplication can also signify emphatic expressions such as (Indonesian uses pun):

(163) SIJI-SIJI LUMAYAN.

Satu-pun bolehlah.

'(Even if only) one, it's not bad.'

FORM 3: SIJI-SIJI (= /nasal/-SIJI) (?satu-satu) - 'one each'

The reduplicated form to express 'one each' is used in sentences such as:

(164) WENEHANA SIJI-SIJI.

?Berilah satu-satu.

'Give (them) one each.'

Javanese has NYIJI as an alternate form and Indonesian tends to use *satu seorang* 'one a person' which is a more productive form comparable to *satu-serumah* 'one in each house', etc.

(165) GEDHANG KUWI // DUMEN SIJI-SIJI.

Pisang itu // berilah satu-seorang.

'The bananas, distribute them one each person.'

FORM 4: SAK-WIJI-NE (sesuatu = suatu) - 'indefinite one/some'

Indonesian has more pro-forms (including pronouns) than Javanese. *Sesuatu* can be used as an independent pro-form but not SAK-WIJI-NE (= SAK-WIJI-NING).

(166) Saya akan membeli sesuatu.

*AKU AREP TUKU SAKWIJINE.

'I will buy something.'

When used as a modifier of a noun, *suatu* is also allowed in Indonesian.

(167) Saya melihat (se)suatu desa kecil dipuncak gunung itu.

AKU WERUH SAKWIJINING DESA CILIK ANA PUCUKING GUNUNG KUWI.

'I saw a small village on top of the mountain.'

When used to refer to an indefinite place, time, etc. Javanese seems to allow more freedom in deleting the preposition than Indonesian.

(168)a. ING SAKWIJINING DINA, BAPAKE DIPATENI.

Pada suatu hari, ayahnya dibunuh.

b. SAKWIJINING DINA, BAPAKE DIPATENI.

?Suatu hari, ayahnya dibunuh.

'One day, his father was murdered.'

Indonesian also tends to use classifiers as pro-forms. See the discussion on Classifiers below.

FORM 5: (SING) SIJI-NE (yang satu (nya)) - *'the other one'*

This form is a relative clause form SING (yang). The availability of the suffix in Javanese makes it possible to delete SING, but the deletion of yang in Indonesian will make the phrase ambiguous, so yang tends to be retained.

(169) JUKUKNA (SING) SIJINE.

Ambilkan yang satu.

'Get (me) the other one.'

(170)a. JUKUKNA SIJINE.

'Get (me) the other one.'

b. JUKUKNA SIJI.

'Get (me) one.'

c. Ambilkan satu.

'Get (me) one.'

(171)a. (SING) SIJINE / AREP DIGAWA SESUK.

Yang satu / akan dibawa besok.

'The other one will be brought tomorrow.'

b. *Satu / akan dibawa besok.

The above SING (yang) phrases are reduced relative clauses whose understood main nouns are deleted. The deletion is optional and the main noun (or head noun) may be overtly expressed:

(172) KURSI SING SIJINE / AREP DIGAWA SESUK.

Kursi yang satu / akan dibawa besok.

'The other chair will be brought/taken tomorrow.'

When the head noun is overtly expressed, it seems that in Javanese the deletion of SING makes the sentence less grammatical, and in my dialect of Indonesian the sentence is better if *nya* is added to either after *kursi* or *satu*.

(173)a. ?KURSI SIJINE / AREP DIGAWA SESUK.

b. Kursinya jang satu / akan dibawa besok.

c. Kursi yang satunya / akan dibawa besok.

d. *Kursinya yang satunya / akan dibawa besok.

I was told by an Indonesian speaker that the need for *nya* is influenced by the corresponding requirement for *E* in Javanese. I will let dialectologists sort them out. If *nya* is part of my dialect, then a synchronic description of the language must consider it as an integral part of the system.

FORM 6: SIJI-SIJI-NE (satu-satu-nya) - *'the only one'*

The reduplicated root plus suffix E (nya) is used as a noun-modifier. When it appears in the surface structure as a predicate, it implies an understood noun being referred to.

- (174) ALI KUWI / SIJI-SIJI-NE BOCAH SING KENA DIPERCAYA.
 Ali itu / satu-satu-nya anak yang dapat dipercaya.
'That Ali is the only child who can be trusted.'

Javanese also uses SIJI-SIJI-NING instead of SIJI-SIJI-NE.

- (175) ?APA IKI / SIJI-SIJI-NE?
 Apa ini / satu-satu-nya?
'Is this the only one?'

Sentence (171) contains an understood NP. The Indonesian sentence seems more acceptable than the Javanese one.

FORM 7: SIJI-SIJI-NE (masing-masing) - *'each (one)'*

As stated above, Indonesian makes a covert distinction between *'each'* and *'every'*, but not Javanese (see Root 5, form 4). As usual, this situation invites borrowing, so that the use of SIJI-SIJI-NE to express masing-masing (*'each'*) is diminishing.

- (176) Masing-masing anak / mendapat satu rupiah.
 ?SIJI-SIJI-NE BOCAH / OLEH SAKRUPIAH.
'Each child receives one rupiah.'

Javanese sentence in (176) seems better with topicalisation:

- (177) Anak itu // masing-masing / mendapat satu rupiah.
 BOCAH KUWI // SIJI-SIJINE / OLEH SERUPIAH.
'The children, each receives one rupiah.'

FORM 8: ((KA)PING SIJI) = SEPISAN (satu kali = se-kali) - *'once'*

The morpheme (KA)PING (kali) is used productively to express multiplication. Like most languages these languages have special forms for one-times.

- (178) THUTHUKEN (KA)PING SIJI / SEPISAN.
 Pukullah ?satu kali / sekali.
'Hit (it) once.'

FORM 9: (ke-satu) - *'the first in a sequence/order'*

Only Indonesian has the generic term ke-satu *'the first'*, ke-dua *'the second'*, etc. Javanese only has a borrowed form NOMER SIJI, NOMER LORO, etc. These borrowed forms are sometimes translated back into Javanese into ANGKA SIJI, ANGKA LORO, etc. where ANGKA = nomer = *'number'*. The Indonesian ke-satu has an alternate form that is more frequently used. The form is pertama.

- (179)a. Ali itu / anak yang pertama.
 b. Ali itu / anak yang ke-satu.
 c. ALI KUWI / BOCAH (SING) MBAREP.
'Ali is the first child.'

The Javanese MBAREP is only used in kinship systems, but pertama is used as a general form. There is also a derived form of pertama, namely pertama-tama *'first of all'*.

- (180) Pertama-tama, rumah ini harus dibersihkan.
 ?SING PALING UTAMA, OMAH IKI KUDU DIRESIKI.
'First of all, this house must be cleaned.'

The word pertama may come from utama *'the utmost'*.

FORM 10: (ke-satu-an) - *'a unit'*

The Indonesian affix ke--an is a productive affix. It is one of the nominal affixes in Indonesian. Compare:

- (181)a. satu → ke-satu-an (*'one' → 'a unit'*)
 b. lahir → ke-lahir-an (*'born' → 'birth'*)
 c. besar → ke-besar-an (*'big' → 'magnitude'*)

FORM 11: SALAH SIJI (salah satu) - *'one of them'*

Semantically SALAH (salah) *'numeral'* is similar to relative clauses in that it restricts the referent to a small number of objects. As a matter of fact with SALAH (salah) only SIJI (satu) can be used. Like relative clauses, the form is used as a noun-modifier, even though at the surface structure the understood head-noun may be deleted.

- (182) SALAH SIJI-NE BOCAH KUWI / KUDU LUNGA.
 Salah satu anak itu / harus pergi.
'One of the children must go.'
- (183) UNDANGNA SALAH SIJI.
 Panggilkan salah satu.
'Call (for me) one of them.'

FORM 12: (ber-satu) - 'united'

Ber+NUMERAL is a productive process to express a unit indicated by the numeral. Ber-satu 'united', ber-dua 'in two', etc. With satu, the derived form has acquired a unique (although related) from the rest of ber+NUMERAL, so as a result, it uses another word sendiri ?'in one/alone', which corresponds to the Javanese form 13 below.

- (184) Bersatu kita teguh.
'United we are strong.'

FORM 13: IJI-N (sendiri) - 'alone/by oneself'

The N or AN suffix in Javanese is a productive suffix corresponding to Indonesian ber when used with numerals other than satu 'one'.

- (185) BOCAH KUWI / LUNGA IJEN.
Anak itu / pergi sendiri.
'The child went alone.'

- (186) BOCAH KUWI / IJEN.
Anak itu / sendiri.
'The child is alone.'

The form IJEN (sendiri) is used either as an adverb or an adjective, as the examples in (185) and (186) show.

Javanese also has an alternate form to express 'alone':

- (187) BOCAH KUWI / LUNGA DEWEKAN.
'The child went alone.'

The word DEWEKAN comes from DEWE 'self', which is similar to Indonesian sendiri which comes from diri 'self'.

ROOT 2: TELU (tiga) - 'three' <or any number other than one>

To contrast root 2 with root 1, the paradigm for root 1 is used below.

Javanese	Indonesian	Gloss
1. TELU	tiga	'three'
2. TELU-TELU	tiga-demi-tiga	'three by three'
3. /nasal/-TELU	*tiga-tiga	'for every three'
4. *SAK-TELU-NE	*se-tiga	'any three'
5. a. *(SING)-TELUNE	*yang tiganya	'the other three'
b. SING TELU	yang tiga	'the three'

	Javanese	Indonesian	Gloss
6.	a. *TELU-TELUNE	*tiga-tiganya	'the only three'
	b. TELU-TELUNE	ke-tiga-tiga-nya	'all three'
7.	-	-	'each three'
8.	(KA)PING TELU	tiga kali	'three times'
9.	ANGKA TELU	ke-tiga	'the third'
10.	-	-	'tripartite'
11.	a. *SALAH TELU	*salah tiga	'three of them'
	b. SING TELU	yang tiga	'the three' (see 5b)
12.	-	*ber-tiga	'union of three'
13.	TELU-AN (= TELON)	ber-tiga	'in three'

FORM 1: TELU (tiga) - 'three'

This form is used in exactly the same manner as SISI (satu). With regard to the overt plural form (reduplication) SISI (satu) cannot go with reduplicated nouns indicating plural because of semantic contradiction, and root 2 cannot occur with reduplicated nouns indicating plural because of semantic redundancy.

Root 2, but not root 1, can be combined with a noun to form a compound noun referring to measurement, duration, etc.

(188) AKU / AREP LUNGA TELUNG DINA.

Saya / akan pergi tiga hari.

'I will be away for three days.'

Note that in Javanese, a nasal linking sound must be added, and the Indonesian phrase tiga hari is not the same class as tiga buku 'three books'. The latter is an alternate form of buku tiga but the former is not an alternate form of *hari tiga. Only tiga hari is available to express 'three days'. When root 1 is used, the alternate forms SE (se) must be used, instead of the root SISI (satu).

(189)a. *AKU / AREP LUNGA SIJING DINA.

*Saya / akan pergi satu hari.

b. AKU / AREP LUNGA SEDINA.

Saya / akan pergi sehari.

'I will be away for one day.'

Javanese also has a special (reduced) form for 'two' in compound constructions.

- (190) *AKU / AREP LUNGA LORONG DINA. → AKU / AREP LUNGA RONG DINA.
'I will be away for two days.'

FORM 2: TELU-TELU (tiga-demi-tiga) - *'three by three/three at a time'*

This form seems to behave like root 2. In constructions such as (163), however, it seems that root 1 is better than root 2, maybe for a semantic reason. The phrase *'even if only ...'* is progressively worse when continued with larger numerals. Compare the following:

- (191)a. SIJI-SIJI / LUMAYAN.
 Satu-pun / bolehlah.
'(Even if only) one will do.'
- b. ?TELU-TELU / LUMAYAN.
 ?Tiga-pun / baiklah.
'(Even if only) three will do.'

FORM 3: ?/nasal/-TELU (*tiga-tiga) - *'for every three/three each'*

I am not sure whether this form is allowed in Javanese, since I do not use it at all. The form is plausible. I can accept NYIJI but not NELU.

- (192)a. GEDHANG KUWI DUMEN NYIJI.
'Distribute the bananas, one for each (person).'
- b. *GEDHANG KUWI DUMEN NELU.
'Distribute the bananas, three for each (person).'

FORM 4: *SAK-TELU-NE (*se-tiga) - *'any three'*

In English *'any three'* means an indefinite or unspecified object of definite amount (i.e. three). Both Indonesian and Javanese do not have a similar expression. As noted above, Indonesian has *sesuatu* *'something/anything'*, but the formation is not productive. There is a general term for *'anything'*: SAK-SAK-E (apa saja) *'whatever'*. To express *'any three'*, for example, Javanese and Indonesian can get around it this way:

- (193)a. AKU BUTUH BUKU TELU.
'I need three books.'
- b. SING ENDI?
'Which ones?'
- c. SAK-SAK-E.
'Whichever.'

- FORM 5: a. *(SING)-TELU-NE (*yang tiga-nya) - 'the other three'
 b. SING TELU (yang tiga) - 'the three'

Although 'the other three' is logically possible, neither language has an expression formed in the same manner as the one to express 'the other one', namely form 5a: (SING)-Q-E (yang-Q).

- (194) *JUKUKNA (SING) TELUNE.
 *Ambilkan yang tiganya.
 'Get (me) the other three.'

Form 5b is available. It is a regular relative clause construction.

- (195) BUKU SING TELU KUWI / AREP TAK DOL.
 Buku yang tiga itu / akan saya jual.
 'Those three books will be sold by me. = I will sell those three books.' (lit. The books which are three will be sold by me)
- (196) BUKU TELU KUWI / AREP TAK DOL.
 Buku tiga itu / akan saya jual.
 'I will sell those three books.'
- (197) BUKU KUWI // SING TELU / AREP TAK DOL.
 Buku itu // yang tiga / akan saya jual.
 'I will sell three of my books.' (lit. The books, three of them will be sold by me)

When a complete relative clause is used, it can be restrictive or non-restrictive, as in (195). The English gloss is misleading because (195) can mean either that there are more than three books or there are only three books and the speaker will sell them all. When the clause is reduced, as in (196), then the ambiguity seems to disappear. BUKU TELU KUWI (Buku tiga itu) implies that there are only three books that the hearer can refer to, i.e. visible to him/her. When topicalised constructions are used, as in (197), the clause is definitely restrictive.

- FORM 6: a. *TELU-TELUNE (*tiga-tiganya) - 'the only three'
 b. TELU-TELUNE (ke-tiga-tiganya) - 'all three'

Form 6a is restricted to root 1. In Javanese, when used with root 2 the only meaning available is 'all NUMERAL' which has the corresponding Indonesian form ke-reduplicated root.

(198) *BOCAH-BOCAH KUWI / TELU-TELUNE BOCAH SING KENA DIPERCAYA.

*Anak-anak itu / tiga-tiganya anak yang dapat dipercaya.

'Those children are the only three children who can be trusted.'

(199) BOCAH KUWI / TELU-TELUNE KENA DIPERCAYA.

Anak itu / ke-tiga-tiga-nya dapat dipercaya.

'Those children, all three can be trusted.'

The Indonesian ke-Q-Q-nya cannot be used with root 1.

(200) *Anak itu / ke-satu-satu-nya dapat dipercaya.

FORM 7: *'each three/every three'*

With root 1, Indonesian has masing-masing to express *'each one'*, but there is no expression for *'each three'*. I am not sure if setiap tiga can be used to express *'every three'*. Javanese and Indonesian have forms to express *'every-Q-MEASUREMENT'*:

(201) TANDURAN KUWI SIRAMANA SABEN TELUNG DINA.

Tanaman itu berilah air setiap tiga hari. (?)

'Water the plant every three days.'

FORM 8: (KA)PING TELU (tiga kali) - *'three times'*

The form (KA)PING-Q (Q-kali) can be used with any numeral.

FORM 9: ANGKA TELU (ke-tiga) - *'the third'*

This form is also used with any numeral.

FORM 10: *'tripartite'*

The form ke-Q-an in Indonesian can only be used with root 1. Similar words occur but not derived from the same process and mostly borrowings. For example: DWI-TUNGGAL *'a pair'* (2 but 1), sepasang *'a pair'*, etc.

FORM 11: a. *SALAH TELU (*salah tiga) - *'three of them'*

b. SING TELU (yang tiga) - *'the three (of them)'*

While *'any one of them'* is expressed by SALAH-Q (salah-Q), it only occurs with SIJI (satu) *'one'*.

(202) *UNDANGNA SALAH TELU.

*Panggilkanlah salah tiga.

'Call (for me) any three (of them).'

Form 11b is used to express '*the three of them*', etc. See form 5 above for a discussion of SING (yang)-Q.

FORM 12: (*ber-tiga) - '*in three*'

Similar to ke-Q-an (form 10 above), the form ber-Q is only available with root 1, to express '*to be in -Q*'. The form is available, but has a different meaning.

FORM 13: TELU-AN (ber-tiga) - '*in three (just the three of them)*'

There is an interesting unparallelism between form 12 and form 13. The Javanese Q+AN with root 1 (and most of root 1 forms) corresponds to ber-Q in Indonesian, but not if Q is satu (root 1). Compare:

(203) Root 1:

Form 12: - ber-satu '*unit of one/united*'

Form 13: IJI-AN (sendiri) '*by oneself*'

Root 2:

Form 12: - - '*unit of three*'

Form 13: TELU-AN ber-tiga '*threesome*'

One possible explanation is that ber-satu was originally ambiguous but one meaning became so prominent that the second meaning is out of use, particularly with the help of the alternate form *sendiri*. Diachronic linguists can say more about this, I am sure. Although TELU-AN is the analogy of IJI-AN (IJEN), the former is used only in fractions such as SAK-PER-TELON '*one third*', while the Indonesian ber-Q can be used as an adverb.

(204) Mereka pergi bertiga.

*WONG KUWI LUNGA TELON.

'*They went in threesome.*'

C. CLASSIFIERS

Indonesian makes use of classifiers, in addition to quantifiers, to refer to the quantity of a noun. In formal writing, some grammarians consider classifiers mandatory, but in spoken language only a few are still in use. In general, a noun phrase has the structure (where CL = classifier):

(205) NP → Q+CL+N(Det)

For example:

dua-orang-anak(itu) 'two-CL-children-the'

dua-buah-batu(itu) 'two-CL-rock-the'

The following is a list of quantifiers in Indonesian with the approximate rule of usage for each, taken from Slametmuljana 1969:300-1.

Classifier	Types of nouns used	Examples
1. batang	something long	'tree, stick, cigarette'
2. bentuk	curvey objects	'ring, bracelet'
3. belah	one number of a pair	'eye, ear'
4. bidang	wide and flat objects	'land, sail'
5. biji	small objects	'cucumber, seed'
6. bilah	small, flat, sharp objects	'knife, sword'
7. buah	fruits and irregularly shaped objects	'town, island'
8. butir	small, round objects	'pearl, egg'
9. ekor	animals	'monkey, cow, bird'
10. helai	sheets of objects	'paper, cloth'
11. kuntum	objects with stems	'flower'
12. kaki	objects with handles	'umbrella'
13. keping	thin, solid objects	'tile, board, plank'
14. orang	people	'child, woman, man'
15. patah	part of language	'word, sentence'
16. {pintu tangga atap}	houses	
17. potong	portions of solid objects	'stick, wood'
18. penggal kerat	portions of broken objects	'stick, cloth'
19. utas	small, lean, long objects	'rope, hair'
20. pucuk	objects with pointed part (also: letter)	'gun, cannon, pen'
21. rawan	net	
22. rumpun	a group of plants	'banana trees'
23. tangkai	objects with stalks	'flower'
24. carik	portions of sheets of objects	'paper'

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