AFFIXATION IN CONTEMPORARY INDONESIAN

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INTRODUCTION

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0.0 The present paper, like most of the others in this Series, is a preliminary study for a complete description of contemporary Indonesian that is meant to be used as a reference work. That is to say, a work organized so as to present information, as complete as possible, about this language.

As a consequence, division of subject matter must be along rather strict lines. In the present case, much that would be relevant to an adequate understanding of affixation in Indonesian must be relegated to other studies. For example, verbal circumfixes in this language would be much better understood if the valence of the verbs concerned were worked out as well, as also if the role of syntax of such verbs, and a number of discourse-pragmatic issues connected with that type of verbs, such as promotion of nonaccusative Objects to Direct Object position were included. Yet such problems are not treated in the present paper, simply because other papers in this Series will deal with them. Eventually, of course, in the reference work, appropriate cross-references will be supplied, and indexes appended.

The focus of the present paper will, then, look fairly narrow: sheer morphemics. Nevertheless, this very limitation offers the possibility of being very nearly complete, an objective almost impossible to obtain in papers with more holistic focus. Obviously, such a completeness is worth while for its own sake, and adequate understanding of this language will eventually profit by it.

To give an idea about what would be relevant to a more holistic approach to the present topic, we are introducing a reference format indicated by "[XX-1]", "[XX-2]", etc.1

In a list found in note 1, these
XXs will be indentified as the titles
of articles to appear later in this
Series; without authors, for the time being, since our work is team work, with the

division of labor subject to change. The names of our associates are to be listed in the "Acknowledgments".²

The rules for morphophonemic changes will be presupposed, and will be referred to (rather than elaborated) in a few passages where they trigger potential ambiguities (10.3; 10.5; 10.6) [XX-8].

For derivational affixes, rules of derivability and (non)productivity (a huge subject in itself, [XX-1]) will be ignored, in favor of a mere inventory of derivational affixes.

For paradigmatic rules, reference is made to [XX-2]; for their place in the categorial system, to [XX-4]. Again, only an inventory of paradigmatic affixes is our objective.

0.1 By "affixation" here is meant the morphemic process that has some specific relationship to categorial membership of the lexeme affected by the process (in paradigmatic affixation) or of the lexeme resulting from it (in derivational affixation). Thus, for example, certain paradigmatic affixations operate on verbs, others on nouns, others again on adjectives; again, certain derivational affixations result in verbs, others in nouns, others again in adjectives.

This working definition of "affixation" excludes two species of nonlexical bound morphemes: first, particles like -kah, -lah, and (-)pun, because these particles attach themselves to various words without regard for their categorial membership; second, the so-called "partial reduplications", such as le- in lelaki, or te- in tetamu, which likewise lack such a category-bound relationship. For these two classes of particles, see [XX-3].

0.2 Affixes are profitably distinguished as "paradigmatic" and "derivational". Paradigmatic affixes do not change the lexical identity of the bases affected (so that their selectivity to categorial membership

is in the base form affected). For example, -ku 'my, -mu 'your [sg/pl]', and $-ny\alpha$ 'his/her/its/their' suffixed to nouns, for possession, do not affect the lexical identity of the nouns affected (10.0 (a); 10.1); neither do encliticized objects to verbs (7.0 (b); 7.2).

In contrast, derivational affixes do change lexical identity. For example, the circumfix pen-|-an changes the immediate derivational origin verb with men-(-kan/-i) into a noun (10.0 (c); 10.3). Though a change of categorial membership through affixation is a good test for change of lexical identity, the former is not a necessary condition for the latter; for example, from pemimpin 'leader' may be derived, by ke-|-an circumfixation, kepemimpinan 'leadership', which is lexically distinct from pemimpin, even though both lexemes are nouns.

0.3 Rules for derivation are "ordered" rules. For example, pembangunan 'construction' is "directly" derived from membangun 'to build', which is in turn "directly" derived from bangun 'to rise'; pembangunan, then, could be said to derive from bangun, but only "indirectly". Similarly, we can say that the "immediate" base for pembangunan is membangun, and that the "immediate" base for membangun is bangun, which, therefore, is the "mediate" base of pembangunan. Rules of ordering are developed elsewhere [XX-1]. Here we merely establish a terminology to make the inventory of affixes in derivation descriptively more convenient.

The ultimate base of any derived affixed form has, therefore, no affixes, though it may well be polymorphemic for nonaffixational reasons. For example, the ultimate (and only, or "immediate") base of bersusah-payah 'to worry, to do laboriously' is the polymorphemic :susah-payah (on the ":", see below), a "reduplication", as it happens [XX-3], which does not itself have a derivational base any more.

A monomorphemic base may be "free" (a "stem") or "bound" (a "root"); such a bound "root" may be called a "precategorial" [XX-4], "pre-" referring to the stage in the derivational history in which no categorial membership can be assigned. Indonesian has several thousands of such precategorial forms; standard examples: :keluh 'complain'; :basuh 'wash'; :gincir 'slip'. One problem in the descriptions of precategorials that should be mentioned here is that it is impossible to say, at least in certain instances, "on which side" (i.e. right or left) the form is "bound". For example, while :keluh is precategorial, its bound form is not consistently symbolized as either "-keluh" or "keluh-", since either prefixation or suffixation may make it "free": as in mengeluh 'to complain' or keluhnya 'complained he'. We propose as a solution to this symbolization problem the use of a colon (also italicized) to

the left of the precategorial. Glosses for precategorials will be given without 'to' if the most appropriate gloss is verbal. It should be noted that, although many monomorphemic forms are precategorials, not every precategorial is necessarily monomorphemic; for example, *gincir* plus infix -el-(2) results in *gelincir*, which is still precategorial, and needs ter-(7.0 (g) and (h); 7.7; 7.8) to be "free", and then in a verb (ter-gelincir 'to slip').

0.4 Rules for paradigmatic processes are "unordered". That is to say, while one may assume, for practical reasons of convenience, a certain paradigmatic form as the "principal" member of the paradigm, e.g. membangun 'to build', rather than any of the other paradigmatic forms of this particular verb (dibangun, dibangunnya, kubangun, kaubangun, Ø-bangun!, membangunnya), and while there may even be certain characteristics of such a form which make it a more ready candidate to be the "principal" (e.g. membangun, rather than any other paradigmatic member of this verb, derives from bangun), yet a certain "order" rather than any other "order" among all the paradigmatic members cannot be argued for on any grounds. However, one might consider membangun (rather than other paradigmatic forms) as the form where derivational status and paradigmatic (membership "converge". But even this is not general, since some ter- forms, for example, derive from nonaffixed bases, rather than from men-forms (7.8).

It will be convenient, henceforth, to call the "principal" member of a paradigm its "citation form".

CLASSIFICATION OF AFFIXES

1.0 Indonesian affixes may be distinguished according to four classes: prefixes; suffixes; infixes; and circumfixes (which are also called "confixes" or "ambifixes"). The following is an example of each class: men-in mendukung 'to support' is a prefix; -an in utusan 'emissary' is a suffix; -em- in gemetar 'to tremble' is an infix; and men-|-i in menduduki is a circumfix. (Vertical slashes separate the beginning and end of circumfixes; note that we follow standard conventions in using the diagonal slash for alternative forms or glosses.)

A circumfix is not identical with prefix-plus-suffix. Thus, while men-|-i in menduduki 'to occupy' is a genuine circumfix, men- plus -i in mengulangi 'to repeat' is not, because the suffix -i in this verb is "iterative" (6.1), and is thus different from the "locative" "focus ending" that is part of the circumfix men-|-i in menduduki (5.0; 5.1).

Similarly, membengkaknya 'the swelling' does not contain a "circumfix" *men-|-nya| (which does not exist in Indonesian), since IC analysis of this form yields first membengkak 'to swell' and -nya '[nominalizer]' (10.0 (a); 10.2), and only in the second step men- and bengkak 'swollen'.

However, once this principle is firmly established, we may often conveniently use the term "prefix" where in fact we are concerned with the first portion of a circumfix. A good example is men-: most men- verbs have much in common, no matter whether men- is the first portion of a circumfix, or a genuine prefix. It would be cumbrous to have to use, in such cases, such expressions as "prefix or first portion of circumfix". Similarly, the -kan of men-|-kan may be described in many ways without always having to indicate it as the "second portion of the confix men-|-kan|: it may then simply be called a "suffix". "Ending" may be a way out when there is ambiguity.

1.1 Among the prefixes in Indonesian we postulate \emptyset - (zero) for certain forms, most frequently certain paradigmatic forms of transitive verbs. For a full justification of this zero, see [XX-2]. Basically, if the zero were not postulated, for example in transitive imperatives such as baca! 'read it' (the exclamation mark symbolizes the imperative), analytically Ø-baca!, the description could not differentiate the precategorial form, which is bound, from the imperative, which is free; or, as in the above example, :baca and \emptyset -baca!. Other such examples would be the " \emptyset - 'passives'" (7.0 (f); 7.6).

For the same reasons the \emptyset - must be postulated in compounds of which one of the components is a precategorial form, as in $tanda\ baca$ 'punctuation symbols' (analytically: $tanda\ \emptyset-baca$) (16). However, $this\ \emptyset$ - is derivational, not paradigmatic.

- 1.2 The following principles, most of them practical, will facilitate an orderly listing and discussion of affixes:
- (a) It seems most convenient first to list all affixes according to the four classes of prefix, suffix, infix, and circumfix, with subdivisions, for each of them, according to categorial membership. This will be done in 1.3.
- (b) Infixes (which are all wholly unproductive in this language) will be treated according to their forms, without categorial membership as a first rank basis of division. They will be treated in 2.
- (c) Various affixes will be discussed according to the categorial membership of their bases, for paradigmatic affixation; and according to the cate-

- gorial membership of their results, for derivational affixation; in 3 through 14.
- (d) Numerals are most conveniently treated as a whole, although they overlap categorially (for example, ordinals are adjectival); in 15.
- (e) Zero affixes as to be postulated (as derivational) for the description of certain compounds are the reason for treating those compounds separately; in 16.
- (f) It seems most convenient to treat affixes of foreign origin separately; in 17 through 20.
- 1.3 Affixes indigenous to Indonesian may be listed according to the prefixsuffix-infix-circumfix classification, and in each class according to categorial membership of the base for paradigmatic affixation and of the result for derivational affixation. The subscripts "1" and "2" distinguish affixes according to their paradigmatic and derivational character respectively. When an affix form is ambiguous in regard to paradigmatic and derivational status, both subscripts are added: "1,2". But the "1,2" subscript is entered only for verbs, i.e. for men- and memperforms, because those may be considered as both derivations and paradigmatic citation forms. (Ber- and ke-|-an verbs have no other paradigmatic alternates apart from the ber- and ke-|-an forms themselves.) For nouns, only "1" or "2" has been subcripted, not "1,2", though strictly speaking nouns have other paradigmatic forms apart from the form listed, i.e. the possessive and determinative suffixes of (b) (i).
- (a) Prefixes may be distinguished according to the following categories:
 - (i) Verbs: men-1,2; memper-1,2; di-1; diper-1; \$\phi_1; &p-per-1; ku-1; kuper-1; kau-1; kauper-1; ter-1; teper-1; ber-2; bersi-2; mer-2; man-2.
 - (ii) Nouns: pen-2; pemer-2; per-2; pe-2; ke-2; peri-2; mer-2; men-2.
 - (iii) Adjectives: se-2; ter-2; men-2; man-2.
 - (iv) Prepositions: se-2; men-2; ber-2.
 - (v) Conjunctions: se_{-2} .
 - (vi) Numerals: se_2 ; ke_2 ; per_2 ; ber_2 ; \emptyset_2 .
 - (vii) Adverbs: se_{2} .
 - (viii) Compounds: \emptyset -2.
- (b) Suffixes may be broken down into the following classes:

- (i) Verbs: $-ku_1$; $-mu_1$; $-nya_{a1}$; $-nya_{b1}$; $-i_2$.
- (ii) Nouns: $-ku_1$; $-mu_1$; $-nya_1$; $-nya_2$; $-an_2$; $-(a)nda_2$.
- (iii) Adjectives: $-an_2$.
- (iv) Adverbs: $-an_2$; $-nya_2$.
- (v) Prepositions: $-ku_1$; $-mu_1$; $-nya_1$.
- (vi) Numerals: $-an_2$; $-nya_2$.
- (vii) Conjunctions: $-kan_2$.
- (c) Circumfixes may be listed as
 follows:
 - (i) Verbs: $men-|-kan_{1,2}$; $men-|-i_{1,2}$; $memper-|-kan_{1,2}$; $memper-|-i_{1,2}$; $di-|-kan_{1}$; $di-|-i_{1}$; $diper-|-kan_{1}$; $diper-|-i_{1}$; $\emptyset-|-kan_{1}$; $\emptyset-|-i_{1}$; $\emptyset-per-|-kan_{1}$; $\emptyset-per-|-i_{1}$; $ku-|-kan_{1}$; $ku-|-i_{1}$; $kuper-|-kan_{1}$; $kuper-|-i_{1}$; $kau-|-kan_{1}$; $kuper-|-i_{1}$; $kau-|-kan_{1}$; $kau-|-i_{1}$; $kauper-|-kan_{1}$; $kauper-|-i_{1}$; $ter-|-kan_{1}$; $ter-|-i_{1}$; $teper-|-kan_{1}$; $teper-|-i_{1}$; $teper-|-kan_{2}$; $teper-|-i_{1}$; $ter-|-kan_{2}$; $ter-|-an_{2}$; $ter-|-an_{2}$.
 - (ii) Nouns: $ke-|-an_2$; $pen-|-an_2$; $per-|-an_3$; $per-|-an_5$; $pemer-|-an_2$; $pe-|-an_2$; $ka-|-an_2$; $ka-|-en_2$.
 - (iii) Adverbs: $se-|-nya_2|$.
 - (iv) Conjunctions: $se-|-nya_2|$; $men-|-kan_2|$.
- (d) Infixes are three: $-el_2$; $-er_2$; and $-em_2$; and one appearing in two items only: $-in_2$.

Of all these, infixes are exemplified first (2); then verbs (3 through 9), nouns (10), adjectives (11), prepositions (12), adverbs (13), conjunctions (14), numerals (15), and compounds (16).

2 INFIXES

2.0 Indonesian has three infixes of relatively high text frequency, i.e. -el-, -er-, and -em-. One other infix, occurring only in a single instance, is -in-.

2.1 Categorially, the bases of these infixations are two: precategorials and nouns. Results are precategorials, nouns, and verbs [XX-1].

It is hard to distinguish the semantic content of -el-, -er-, and -em-, and it is easier to say what they have in common: features of iterativeness, intensity, and duration. Verbs with these infixes, to put it negatively, are not "punctual".

These three infixes invariably follow the initial consonant of the base: gerigi 'serrated', from gigi 'tooth'; :gelincir 'skid', from :gincir 'skid'; :kelupas 'peel off', from :kupas 'peel'; gemetar 'to tremble', from :getar 'tremble'.

The infix -in- (which derives from the Javanese passive infix -in-), occurs, so far as we are aware, only in kesinam-bungan 'connectedness, relation', which can be broken down into :sinambung and nominalizing ke-|-an, while :sinambung can be broken down into passive -in- and :sambung 'connect'.

3 MEN- VERBS

3.0 By "men- verbs" here are meant all verbs beginning with men-, no matter whether men- is a simple prefix or initial portion of a circumfix (i.e. men- either in men-|-kan or in men-|-i). By far most verbs are transitive, and highly productively so (of confixed men- verbs this is true of all except just three or four), while a notable minority of men- verbs are intransitive, slightly productively so.

The bases of men- verbs are varied catagorially: precategorials, nouns, verbs, adjectives [XX-1]. The results are over-whelmingly verbs, but some are nonverbs (10.0 (f); 10.6; 11.0 (c); 11.3; 12.0 (b); 12.2); here, only the verbs are treated.

3.1 Examples of transitive verbs are:

membangun 'to build'; mendidik 'to educate,

to bring up'; menduduki 'to occupy'; me
nyembelihkan 'to slaughter for [someone]';

mendirikan to erect, to found'; memukuli

'to batter'.

Some reduplicated men-verbs have men-preceding the first base: membakar-bakar 'to keep on burning [something]'; menulis-nulis 'to keep writing'. Others have men-preceding the second occurrence of the base form (with a variety of semantic characteristics; see [XX-1]): tukar-menukar 'to exchange'; pukul-memukul 'to hit one another'; tulis-menulis 'to write, to practice writing'.

Examples of intransitive men-verbs are: membengkak 'to swell'; mendarat 'to land'; melaut 'to sail'; memutih 'to become white'; membesar 'to grow big'; menyeberang 'to cross over'; menyalak 'to

bark'; mengalah 'to yield'.

Only very few circumfixed men-verbs are intransitive: merupakan 'to be [COP]'; mencukupi 'to be sufficient'; memadai 'to be sufficient'.

Some transitive verbs may also be used intransitively: membuka 'to open [without apparent agent]'; menutup 'to close [without apparent agent]'. The possibility of such intransitive use is a lexical characteristic of a number of menverbs, with consequences, to be sure, for verb valence and thus for syntax [XX-5], and it should not be confused with the "diathetical" possibility (of any transitive verb) to be used antipassively, without Object ([XX-6], [XX-7]).

- 3.2 *Men-* prefixation is often called "prenasalization" (i.e. of the base) in Indonesian studies. The term is convenient in that it covers prenasalizations other than men-, i.e. the type that may be called (we suggest) "nonsyllabic", in contrast to men- which adds a full syllable to the base and may therefore be called "syllabic". Nonsyllabic prenasalization is relevant to Indonesian because of interference from languages (such as Javanese) and (Malay) dialects (such as Jakartanese), all of which have nonsyllabic prenasalization often (Jakartanese) or invariably (Javanese); as well as because of some isolated items in Indonesian itself, apart from interference. This may be described in more detail as follows:
- (a) Some of the nonsyllabically prenasalized forms occurring in Indonesian are due to interference from such languages as Javanese, and from such dialects as Jakartanese, and are, in Indonesian, decidedly nonstandard. However, one may hear them frequently in Informal Indonesian. Examples are: nyewa 'to rent'; (standard: menyewa); ngopi 'to drink coffee' (standard: mengopi); nyimpan 'to save' (standard: menyimpan); nonton 'to watch' (standard: menonton); ngebut 'to speed, to go too fast' (standard: mengebut). In some instances these prenasalizations differ from standard Indonesian not only in being nonsyllabic, but also in applying morphophonemic rules obtaining in the language of origin but not in Indonesian; thus, nyetak 'to print' (standard: mencetak, not *menyetak) owes its morphophonemic form to Javanese ([XX-8]).
- (b) In Formal Indonesian, some non-syllabically prenasalized verbs are rather of the "fossilized" type, and are not in every instance unambiguously identifiable as prenasalized forms purely synchronically. More practically, however, some of them are synchronically relevant indirectly because of some derivational complications. One example is mimpi 'to dream', which is related to impian 'dream [noun]', through the precategorial :impi 'dream', of which then mimpi may be seen as the nonsyllabically prenasalized form. (In Javanese 'to dream' is ngimpi, which

argues a base : impi in that language.) A 'dreamer' is either pemimpi or pengimpi, both attested. The form *memimpi does not exist, but mimimpikan does; forms like kuimpikan 'I dreamt' (suggesting the base :impi) occurs alongside of kumimpikan (base: mimpi). Another example is minta 'to ask, to request'; historically there was a base :pinta, which now occurs only in pintanya 'asked he' (after a direct request), and cannot be found as *dipinta(nya). Similarly, mohon 'to ask, to request' in earlier Malay had the base :pohon, which is now found only in pohonnya 'asked he' (after a direct request), and cannot now take the form of *dipohon(nya). For minta and mohon also the forms meminta and memohon are used: see 3.2 (d).

A few other verbs should be noted here. The verb minggir 'to pull over [intr.] (to the side of the road) ' is rather informal language, but is used so frequently even by careful speakers that it is relevant here; the strictly standard meminggir is rarely used. These forms are clearly related, also synchronically, to pinggir 'side (of the road)'. Then there is ngantuk (strictly standard: mengantuk) 'to nod off (in sleep)', with the base :kantuk, as may be concluded from terkantuk 'falling asleep'. From the form omong 'to chat', there is derived ngomong 'to chat', which is decidedly nonstandard; however, the expression ngomong-ngomong 'incidentally [as a sentence adverb] ' is, though distinctly colloquial, not clearly substandard.

A final example should be noted. From the precategorial :erti 'understand', there is derived (in keeping with morphophonemic rules for syllabic prenasalization) mengerti 'to understand; all "passives", however, retain meng-: dimengerti 'be understood'; kumengerti 'I understand'; etc. (For those "passives", see 7.0 (c), (d), (e), (f); 7.3; 7.4; 7.5; 7.6.) However, the deverbal action noun is pengertian 'understanding' not *pemengertian. See [XX-8].

(c) A special pair is mundur 'to withdraw [intr.] ' and maju 'to progress, to proceed'. These (standard!) forms are related to reconstructible :undur and :aju respectively, and these precategorials are the bases of mengundurkan 'to withdraw [tr.], to move [tr.] backward' ("passive": diundurkan; diundur, without -kan, means 'be postponed'; but the active *mengundur is not found as a transitive verb) and of mengajukan 'to propose, to bring forward' ("passive": diajukan). In memajukan 'to move [tr.] forward', however, the base is maju; in contrast, no such derivation in the case of mundur (*memundurkan) is possible. Though all this does not present a convincing argument that the initial nasals in mundur and in maju are necessarily instances of nonsyllabic prenasalization, and would not in any case be a wholly ad hoc solution, and, since such special pairs, with their derivations, should have some place in the treatment of

affixation, the present section seems to be as good as any for it.

In addition, mudik 'to go upstream' is related to :udik, which still occurs in compound forms such as $orang\ udik$ 'people in the interior' (analytically: $orang\ \emptyset-udik$ (16)).

- (d) Four verbs may be mentioned as similar in several respects: makan 'to eat'; minum 'to drink'; minta 'to request'; mohon 'to request'. For further particulars on minta and mohon, see 3.2 (b). All four verbs, however, also have $sy\ell$ labically prenasalized forms: memakan; meminum; meminta; memohon. Note that the latter forms may have encliticized Objects (-nya would be the obvious one): memakannya; etc. In contrast, the nonsyllabically prenasalized forms, though they certainly can have Objects (e.d. makan roti 'to eat bread'; minta uang 'to ask for money'; etc.), cannot have them in encliticized form: makan(*nya); minum(*nya); minta-(* $ny\alpha$); $mohon(*ny\alpha)$; all of this following the general rule explained in 7.2.
- Instead of men-, the prefix man-3.3 occurs in two items: manunggal 'to be united with', and mandiri 'to stand on its own feet, to be independent'. The man- form of the suffix is due to Javanese interference. Nevertheless, at least $m\alpha$ nunggal (from tunggal 'one, only') may be said to be (now) standard Indonesian, since it occurs in a much-promoted principle in Indonesian domestic politics, i.e. in ABRI yang manunggal dengan rakyat 'the Armed Forces which are united with the people of Indonesia '. Mandiri, which may be called an adjective as well as a verb (11.3), is also established in current use by now. (The form *mendiri, from diri 'self', is nonexistent.)

Mer- is found in: meruap 'to give
off steam' (uap 'steam'), and in (the
Javanese loan) mertamu 'to go for a visit'.

4 MEMPER- VERBS

- verbs, transitive, causative. Mempermay be a genuine prefix, or the initial
 part of a circumfix. The bases of memperverbs not circumfixed are nouns, adjectives, or numerals; the bases of circumfixed memper- verbs are either precategorials or nouns [XX-1]. Memper- verbs,
 prefixed or circumfixed, are becoming increasingly productive.
- 4.1 Examples of memper- verbs are:
 memperbanyak 'to multiply, to duplicate';
 mempertinggi 'to make higher'; mempertiga
 'to multiply by three'; mempersatukan 'to

unify'; memperistri 'to marry [said of a male]'; memperingatkan 'to warn, to caution'; memperingati 'to commemorate'.

5 CIRCUMFIXES WITH MEN- AND MEMPER-

5.0 Circumfixes deriving men- verbs and memper- verbs are men-|-kan and men-|-i; memper-|-kan and memper-|-i. The -kan and -i endings are "role markers", i.e. they assign the relevant role to the NP in Direct Object position, immediately after the verb (i.e. in the "active"). (It should be noted that, for some men- verbs, but for no memper- verbs, there is an "iterative" -i suffix which is not a "role marker"; see 6. below.) See [XX-5].

While a role marker -i marks only one role, i.e. the "locative" (5.1), the "role marker" ending -kan may mark any of four distinctive roles, though rarely more than one for each base. See 5.2 below.

- 5.1 The role marker -i is locative, i.e. it assigns locative role meaning to the Direct Object NP. (That "locative" role is frequently figurative.) Examples are: menduduki 'to sit on, to occupy'; menjatuhi 'to make [something] fall on [someone/something]'; memperingati 'to commemorate'; menghormati 'to confer honor on, to honor'. It seems that locative -i cannot be added to stems already ending in -i: thus membenci 'to hate' was, in earlier Malay, membenci, but that form has dropped out of the language.
- 5.2 The role marker -kan belongs to five semantic species:
- (a) Benefactive: membelikan 'to buy for'; menyembelihkan 'to slaughter for'; menjualkan 'to sell for'; membukakan 'to open for'. The Direct Object NP has the benefactive role; the NP after that, the accusative role. These are three-place verbs.
- (b) Instrumental: memukulkan 'to use [something] to beat'; menembakkan 'to use [something] to shoot [at something]'. The Direct Object NP has the instrumental role; the NP after that, the accusative role. These verbs are three-place verbs.
- 'to entrust [something] for sewing [to someone]'; mereparasikan 'to entrust [something] for repair [to someone]'; the Direct Object NP refers to the things caused to be done by someone else; the following ("dative") NP, to the person entrusted with the job. These verbs are three-place verbs.
- (d) Accusative-causative: memperlakukan 'to treat [something/someone] [like/ as something/someone]'. The Direct Object

NP is the thing caused to be done by the Subject. These verbs vary in valence: two-place or three-place; either is possible with memperlakukan. The verb memberlakukan 'to cause [something] to become valid', is a two-place verb.

(e) Noncausative: menganjurkan 'to propose'; merindukan 'to long for'; mengenakan 'to put on [clothes]'. The term "noncausative" should be interpreted as opposed to (c) and (d) of 5.2, from which categories they clearly differ. However, the term "noncausative" should not be understood here merely in its own terms, since, after all, there is a measure of "causativity" in any transitive verb. See [XX-1] and [XX-5].

All memper- verbs with -kan belong to (d); (a) through (c) are exclusively men- verbs; some men- verbs belong to (d).

It should be noted that in ter- (and teper-) forms of circumfixed verbs, the role marker (-kan or -i) is often dropped; see 7.7.

- 6 MEN- VERBS WITH "ITERATIVE" -I
- 6.0 Some men- verbs, not circumfixed, may have a derivational suffix (not the final portion of a circumfix!) -i, which is conveniently called "iterative" -i. This -i is not a role marker of any kind.

All such "iterative" -i verbs derive from the corresponding men- form; no memper- verbs have the "iterative" -i suffix; see [XX-1].

The label "iterative" for these 6.1 -i verbs is appropriate for a great number of such verbs: memukuli 'to hit repeatedly'; menggigiti 'to bite repeatedly'; menampari 'to slap over and over again'; and many more. However, the -i suffix may be "intensive" rather than "iterative": thus menciumi, though it may mean 'to kiss repeatedly', may also mean 'to kiss [once, but with great reverence, or affection]', and would, in that case, be distinct from mencium with the meaning of 'to kiss [rather perfunctorily]'. Similarly, though mengulang 'to repeat', is already transitive, mengulangi may have the connotation of the special significance of the (single) repetition. Also, the -i suffix may have the connotation that the Patient is affected in multiple ways at once, rather than iteratively in time: seluruh badannya ditusuki dengan pisau-pisau 'his entire body was hit by (all) those knives [in one instant]'.

- 7 PARADIGMATIC AFFIXES WITH MEN- VERBS AND MEMPER- VERBS
- 7.0 Men- verbs and memper- verbs have various kinds of paradigmatic affixation:
- (a) Men- and memper- mark the "active" voice, focusing on the agent (for intransitive verbs, on "actor" or "experiencer"); this includes the imperative, but only for intransitive verbs, or transitive verbs used intransitively.
- (b) Both men- and memper- verbs, when transitively used and prenasalized, may have the Direct Object suffixes -ku 'me', -mu 'you [sg/pl]', and $-ny\alpha$ 'him/her/it/them', under certain constraints.
- (c) Di- (for men-verbs) and diper(for memper-verbs) is for "passives",
 focusing on the patient; di-, in either
 case, may do extra duty as anaphoric agentive.
- (d) Ku-'[l sg]' and kau-'[2 sg]' (for men- verbs) as well as kuper- and kauper- (for memper- verbs) are agentive prefixes in "passives".

(e) With di- "passives", the agentive suffix $-ny\alpha$ '[3 sg/pl]' may be attached.

- (f) The \emptyset (zero) prefix (for men-verbs) and \emptyset -per- prefix (for memper-verbs) is for imperatives of transitives, as well as for "passives" with preposed pronominal agentives that are morphemically free.
- (g) Ter- (for men- verbs, i.e. transitive ones) and teper- (for memper- verbs) is the marker for the "passives" where the agent is unknown, irrelevant, or devoid of deliberateness (the "accidental" "passive").
- (h) Ter- with intransitive men- verbs and with monomorphemic verbs marks the "accidental" aspect (the "accidental" intransitive).

Prefixes (a) through (h) are to be treated in detail in 7.1 through 7.8.

A few notes here are in order:

- This section 7 deals with paradigmatic affixes, and only with those of men- and memper- verbs. No section in the present paper dials exclusively with paradigmatic alternation of any other verbs or nonverbs. Among those, nouns have paradigmatic affixes (for possession; and for a determiner: 10.0 (a); 10.1)), but those are more conveniently treated along with derivational affixes yielding nouns. The same obtains for prepositions, in regard to enclitic Objects: 12.0 (a); 12.1. Finally, ber- verbs (8) have only one member of the paradigm, i.e. the berform, while monomorphemic verbs are ignored in the present paper, since the only paradigmatic member apart from the citation form is ter-. Therefore, this section 7 is the only section dealing exclusively with paradigmatic affixation.
- (ii) Listing paradigmatic affixation of these men- and memper- verbs of necessity gives only a partial and rather poor picture of the full extent of verbal paradigms in this language. For example, -nya

of dibacanya 'he read/was read by him' is listed, but nothing is said in this section about what may be called "periphrastic" members of the "syntactic" paradigm, such as: dibaca olehnya 'was read by him' (oleh is 'by', and is often optional), or dibaca oleh murid 'was read by the pupil'; and so forth. For such a "syntactic" paradigm, see [XX-5], in great detail. Again, the present paper merely identifies and describes affixation (0.0).

(iii) The terms "active" and "passive" in 7.0, and elsewhere in this paper, have been enclosed in quotation marks as "scare quotes". That is to say, these "passives" are often ergatives, and the "actives" are often antipassives; see [XX-5] and [XX-6]. For the purposes of identification of affixes, however, these diathetical problems are largely irrelevant, except in one or two cases, such as "passive" di- which is also pronominally anaphoric (where that "passive" is invariably an ergative); these cases will be briefly identified as such below, with repeated reference to [XX] sources.

(iv) The prefix memper- is, of course, more adequately analyzed as uniting the presasalization men- plus -per-; and similarly with alternates for men-, in diper-, kuper-, kauper-, $\emptyset-per-$, and teper-. This would identify minimally men-, di-, ku-, kau-, $\emptyset-$, and ter-; and, in each of them, -per-. In this manner, one would also avoid having, say, the pronominal preposed agentives kuper- and kauper-, where obviously, -per- is not pronominal.

However, for us to observe that kind of consistency would raise a number of descriptive problems. First, all grammars of Indonesian distinguish men- and memper-, and none that we know of would call them all "men- verbs", with -per- added for some, and so it seems better to follow descriptive tradition in this regard. Second, memper-verbs, semantically and syntactically, have special characteristics it would be artificial to ascribe to -per- (in combination with men-). Third, in the "consistent" analysis just reviewed -per- would have to be called an "infix", which would be a wholly ad hoc classification. In short, though the search for "minimal contrasts" has its own logic, it seems better, in the present case, to ignore it.

7.1 As noted before, the men-prefix may be regarded as derivational in regard to the base, and as paradigmatic in regard to the other paradigmatic alternates. Only the latter concerns us here. A similar note obtains for memper-.

Whereas transitive men- verbs mark the imperative with \emptyset - (and memper- verbs, with \emptyset -per-) (7.6), intransitive imperatives are marked with men-: menyeberang! 'cross over (to the other side)!'; menga-lah! 'accept your loss, give in!'. Imperatives of transitive verbs used intransitively likewise have men-: together with \emptyset -tulis(lah)! 'write it!', there is menu-lislah! 'Write, get on with your writing!'.

Negative imperatives of intransitive men-verbs do not entail any difference in affixation as compared to affirmative imperatives, i.e. men- is obligatory: jangan menyeberang! 'don't cross over!'; jangan mengalah! 'don't give in!'.

Negative imperatives of transitive verbs do not differ from their affirmative counterparts either, in that a high degree of transitivity will trigger ∅- prefixation; and a low degree, men-. That menprefixation for negative imperatives of transitive verbs is much higher in text frequency than men-formed affirmative imperatives (and of this there seems to be no doubt), is understandable on the general principle that transitivity in negative utterances is lower than in affirmative ones: jangan baca! 'don't read it!'; jangan membaca! 'don't (just sit there and) read!'. For memper- verbs: jangan perbanyak! 'don't duplicate it!'; jangan memperbanyak! 'don't do any duplicating (now)!'.

7.2 The Direct Object suffixes with men- and memper- verbs are -ku 'me'; -mu 'you [sg/pl]'; -nya 'him/her/its/them': dia mengundangku 'he invites me'; dia mengundangmu 'she invites you'; saya mengundangnya 'I invite him/her/them'. Negative imperatives do not, however, follow this rule, as will be explained in a moment, below. It is only with (syllabically) prenasalized forms that pronominal enclitics as Objects may be attached; see 7.4 and 7.6.

Whether or not in certain forms (such as mimpi, mundur, maju, makan, minum, minta, mohon; see 3.2 (b) through (d)) the phonemically nasal consonant to the left can be considered as a (nonsyllabic) "prenasalization", what is certain is that -ku, -mu, or -nya for Object cannot be affixed to them. This holds also for nonsyllabic prenasalization in instances due to interference from Javanese or Jakartanese (3.2 (a)); indeed neither in Javanese nor in Jakartanese can there be any enclitic Object pronoun with these forms.

Negative imperatives of transitive verbs taking men-can have Objects, like any transitive men-verb, but, unlike all other transitive men-constructions, that Object cannot be encliticized: jangan memukul aku 'don't hit me' (*jangan memu-kulku); jangan membaca koran itu 'don't read that newspaper' (*jangan membacanya).

Given the presence of men-/memper-, also circumfixed verbs can take -ku, -mu, and -nya for Object enclitics: Ali sudah memperhatikannya 'Ali has already given it his attention'; aku mengenangkanmu dalam doa 'I remember you in my prayers'; istrinya menghormatinya 'his wife holds him in great honor'. However, with the focus ending -kan, only third person -nya is possible according to the following rules: (see 5.2, (a) through (d)).

(i) With benefactive -kan, only third person -nya is possible: aku membelikannya rokok: I bought him cigarettes' is well formed, but dia membelikan(*ku)/

membelikan(*mu) rokok 'he bought me/you cigarettes' is not; though free, nonclitic, pronouns, in such constructions, are all right: dia membelikan aku/kamu rokok.

(ii) With instrumental -kan, only third person -nya is possible, and similarly with the dative-causative $-k\alpha n$. The reason for this is not far to seek: instruments (which take Direct Object position with instrumental -kan verbs) and the things entrusted to others for some job (which take the same position with dative-causative -kan verbs) cannot be [+Human], and therefore exclude first and second person. Examples, for instrumental -kan verbs: saya memukulkannya pada anjing 'I used it [e.g. a cane] to hit the dog'; dia menembakkannya pada musuhnya 'he used it [e.g. a bullet] to shoot it at his enemy'; for dative-causative -kan verbs: Ahmad mereparasikannya pada bengkel di seberang 'Ahmad had it [e.g. his car] repaired at the shop across the road'; saya menjahitkannya pada taylor 'I had it [e.g. the coat] made by the tailor'. (note: taylor: sic.)

Only accusative—causative—kan verbs can have both third and nonthird enclit—icized pronouns in Direct Object position:
dia memperlakukanmu sebagai musuh 'he treats you as an enemy'.

7.3 The di-form (for men-verbs) and diper- form (for memper-verbs) has been dubbed "passive". Here, however, a distinction between passive and ergative is, exceptionally (for a purely morphemic description of the paradigm), needed for the di-form.

If the di- form belongs to an ergatively organized construction, the agent must be third person, and is obligatorily present; however, if that agent does not appear as -nya (or in fully nominal form, for that matter), it is anaphorically contained in the prefix di-.

If, in contrast, the di- form occurs in an accusatively organized construction (as a genuine "passive", therefore), the agent is optional (i.e. if there is no -nya or a fully nominal agent, the di-prefix is still not anaphorically pronominal), it is third person unless some other discourse-pragmatic strategy overrides the normal animacy hierarchy impediment to nonthird agents. For an elaborate analysis of these issues: [XX-5; XX-6].

'He was taken in! He (actually) thought it [i.e. some story] was true!' would, in almost any context, be an ergative construction, highly transitive, with deleted Object (in Ø [for 'it', i.e. the story] dikira betul); di- is then anaphorically referential to dia in the preceding clause. Or: buku yang dibeli sebelumnya '(the) books that had been bought previously' where di- is a genuine "passive"; because of the backgrounded nature of the construction, low transitivity, occurrence

in a subclause, it would be almost impossible for this phrase to occur in ergative organization, and, therefore, for di- to be pronominally anaphoric; note also there is thus no agent for dibeli.

Though, as noted, nonthird agentives of genuine passive di- forms are possible, they never occur enclitically, and their use is therefore of no concern here.

Ku- and kau- (for men- verbs) and kuper- and kauper- (for memper- verbs) are lsg and 2sg prefixed pronominal agentives for "passives", alternating, in what appears to be no more than free variation, with the morphemically free (but syntactically bound: see 7.6) preposed use of aku and (eng)kau, preposed to (and inseparable from) the \emptyset - + base form of the "passive" base (for memper- verbs: \emptyset -per-). Examples: kubaca 'I read' (alternating with $aku \emptyset-baca$); kuperbuat 'I committed' (alternating with $aku \not 0$ -perbuat); kaulakukan 'you did' (alternating with (eng)kau Ø-lakukan); kauperisteri 'you married' (alternating with $(eng)kau \emptyset$ peristeri). (Depending on construction, these glosses may have to include an Object: 'you read it'; 'you committed it [i.e. that act]'; 'you did it'; 'you married her'.)

The di- passives can only have one, i.e. third sg or pl enclitic, agent: -nya. It, or a fully nominal agent, is optional in genuine passives, and in ergative di - constructions as well, in the latter case not because the agent itself is optional but because then the prefix di- itself is pronominally anaphoric (7.3). Examples: dibelinya 'he bought, was bought by him'; diperlakukannya 'he treated, was treated by him'; didudukinya 'they occupied, was occupied by them'; dibelikannya 'she bought (for), was bought by her (for); dipukulkannya 'he used [...] to beat, [....] was used by him to beat'.

7.6 The \emptyset - prefix, postulated for reasons briefly set forth in 1.1, occurs in the paradigms of men- verbs (and as \emptyset -per- for memper- verbs), in two classes of members of the paradigm: in transitive imperatives; and in "passives" with preposed pronominal agentives in morphemically free form.

Examples of the former: baca(lah)!
'read it!'; perbanyaklah! 'duplicate it!';
duduki(lah)! 'occupy it!'; and so forth.
Analytically: Ø-baca(lah)!; Ø-perbanyak(lah)!; Ø-duduki(lah)!

'we did [it], [it] was done by us'; dia pertinggi 'he made [it] higher'; mereka duduki 'they occupied [it]'. The preposed agentives, though morphemically free, are

syntactically bound, i.e. they are inseparable from the \emptyset - form of the base. They are first, second or third person, including also a number of "vocative" nonpronominal forms of address; on all of those, see [XX-5].

A complication arising from interference from Javanese must be briefly noted here. As has been indicated above, in order for any "active" to have the enclitic Direct Object $-ny\alpha$, it is obligatory for the verb to be prenasalized (menor memper-) (7.2). Negatively, then, it may here be noted that no \emptyset - form, whether imperative or "passive", can have an Object in -nya form (the "passive" with an Object would then, of course, be an ergative). All this follows directly from the relevant passages above. For example, one cannot have *bacanya(lah)!'read it!'; or *kami lakukannya 'we did it'; and so forth. However, from Javanese speakers one may frequently hear expressions like nanti saya tutupnya 'I'll close it in a minute' or nanti saya belinya 'I'll buy it in a moment'. These constructions are decidedly not standard Indonesian. The Javanese equivalent of Indonesian -nya is -(n)e (the /n/ being used only after a vowel), and it is parallel to Indonesian possessive -nya (10.1 (a); 10.1), but not to Indonesian Object -nya: Javanese -(n)e cannot be attached as Object to a verb. It can, however, be a marker of the speaker's (and no one else's!) intention to do something: what is known in Javanese grammar as "propositive" $-n\acute{e}$. Hence expressions like nanti saya belinya/ tutupnya. It is very easy to show that this $-ny\alpha$ cannot be an "Object" to the verb even by reanalysis. Javanese speakers of Indonesian will follow the rules of their first language by observing two constraints: first, such clauses be only first person; second, the future can only be future semantically. Thus, no Javanese speaker will say, in Indonesian, nanti dia beli-(*nya) 'he'll buy it in a moment', and neither tadi saya tutup(*nya) 'I closed it a moment ago': no nonfirst, and no nonfuture.

7.7 Ter- (for men-verbs) and teper(for memper-verbs) plus base serve as
"passives" where the agent is unknown, or
irrelevant, or devoid of deliberateness:
the "accidental" ter-/teper- form, as
"passive". Examples: terbakar '(to be)
accidentally burnt'; tergilas '(to be)
accidentally run over/crushed'; terlihat
'(to be) visible'; tertekan '(to be) under
stress'; terlewati '(to be) passed by by
mistake'.

According to complicated rules which will be set forth elsewhere [XX-2], these ter-/teper- forms, if belonging to the paradigm of a circumfixed verb, may drop the -kan or -i role marker ending. Thus while in terlewati (from melewati 'to pass by') the role marker ending -i is retained, that same ending does not occur

in terhormat (from menghormati 'to honor'; there is no such verb as *menghormat) 'honored'. Similarly, tertinggal '(to be) (unintentionally) left behind' is the terform of meninggalkan 'to leave behind' (meninggal does exist, but it means 'to die'). On the other hand, mengendalikan 'to bridle' yields terkendali*(kan).

7.8 Ter- may also paradigmatically alternate with men- in intransitive men-verbs: ternganga 'to have one's mouth wide open'. Or ter- may be a paradigmatic member of monomorphemic verbs: tertidur 'to fall asleep', terjatuh to fall down (accidentally)'; tergelincir 'to slip'. The citation forms are: tidur 'to sleep'; jatuh 'to fall'; :g(el)incir 'slip'.

8 BER- VERBS

- 8.0 The prefix ber- derives various categories from the base forms, but only a few of them nonverbs (15.0 (d); 15.4); most are verbs, which may be subclassified as:
- (a) Verbs with ber- as genuine prefix; these are again subdivided as:
 - (i) Action verbs.
 - (ii) Stative verbs.
 - (iii) Reflexive verbs.
- (b) Circumfixed ber- verbs; subdivisible into:
 - (i) Ber-|-an verbs, of two kinds:
 - (x) Reciprocals.
 - (y) Other.
 - (ii) Ber-|-kan verbs.

(c) Bersi- verbs:

Ber- verbs of all kinds derive from a variety of bases according to categorial membership of those bases: [XX-1]. Though ber- verbs may seem to have complements and therefore look as if they have a measure of transitivity, a more appropriate analysis of such ber- phrases shows that the base itself is phrasal. Thus beristri dua 'to have two wives', derives from ber- + istri dua; bertukaran cincin 'to exchange rings', is ber-|-an|+:tukarcincin, with :tukar "inside" and cincin "outside" the circumfixation, rather than bertukaran + cincin. Many ber- verbs, however, cannot have a complement, such as bercukur 'to shave (oneself)'.

The subclasses (a) through (c), and their subordinate classes, must now be described and exemplified in 8.1 through 8.4.

8.1 Verbs, noncircumfixed, with berhave a fairly wide variety of semantic content. Some have subjects that are "actors": berjuang 'to struggle'; berenang 'to swim'; berjalan (kaki) 'to go (on foot)'. Others are merely stative: berhuruf 'to have letters' (e.g. berhuruf tiga 'to have three letters'); beristri 'to be married [said of a male]'. The test to distinguish them is not merely the analysis of semantic content, but also the possibility of having ber-derived per-|-an action nominals: thus perjuangan 'struggle' is well formed (from berjuang), but *peristrian, or *perhurufan, is not; [XX-1].

Some ber- verbs are reflexive: bersisir 'to comb one's hair'; bercukur 'to
shave (oneself)'; berbedak 'to powder
one's face'.

8.2 Ber-|-an verbs are of two kinds: reciprocal, and nonreciprocal. Examples of reciprocal verbs: bertukaran (cincin) 'to exchange (rings)'; bersurat-suratan 'to exchange letters, to correspond (with one another)'; berpukul-pukulan 'to exchange blows, to hit one another'.

The nonreciprocal ber-|-an verbs often have a meaning of 'being all over the
place', or 'involving great quantities';
examples: berguguran 'to fall (in great
numbers)'; berlumuran (darah) 'to bleed
all over, to be all covered (with blood)';
berserakan (dia atas meja) 'to be spread
out/scattered all (over the table)';
(burung-burung) beterbangan '(all kinds
of birds) were flying around'.

8.3 The -kan ending of ber-|-kan verbs is semantically not always clear, as may appear from the virtual equivalence, semantically, of berisi air and berisikan air 'to contain water'; bersendi (pada) 'to have [X] for principle/corner stone', beside bersendikan (pada); beralas (pada) 'to be founded on', beside beralaskan (pada); etc.

In a number of such expressions, however, -kan is obligatory: berlengkapkan senjata 'to be fully armed'; bersenjatakan pedang 'to be armed with a sword'. Older Malay seems to have more of such ber-|-kan formations, not all of which, however, are now in the vocabulary of most speakers of Indonesian; an example is berpakaikan jubah kebesaran 'to be resplendent in [his] robes'.

8.4 A few verbs add -si- to ber-, before the base: bersikeras 'to be hard (in one's purpose)'; bersimaharajalela 'to do whatever one pleases (in a position of authority)'; bersitegang 'to quarrel (over)'.

9 KE- -AN VERBS

 $Ke-|-\alpha n|$ verbs are passive in mean-9.0 ing, and cannot be considered, consistently, as paradigmatic alternates of the $men(-|-\bar{k}\alpha n/-i)$ verbs derived from the same base. For this position, see [XX-1]. Briefly, since these ke-|-an| verbs are semantically related to different menverbs, i.e. "adversative" men-|-i| verbs in a number of instances, and to certain "nonadversative" men- verbs of various kinds, it would be artificial and ad hoc to consider these ke-|-an| verbs as paradigmatic alternates, since such "alternations" would hold only for a limited number of verbs.

These ke-|-an verbs have a variety of syntactic constructions, according to valence, and other characteristics, none of them of any concern here; concerning these, see [XX-5].

There are, then, the two classes mentioned:

- (a) Adversative verbs.
- (b) Nonadversative verbs.

 These must now be treated in 9.1 and 9.2.
- 9.1 Examples of adversative ke-|-an verbs are: ketimbunan (reruntuhan) 'to be hit/covered (by debris)'; kecurian 'to have [something] stolen from one'; keco-petan 'to be pickpocketed'; kemasukan (setan) 'to be possessed (by the devil)'; ke-tutupan (kabut) 'closed in (by fog)'; kedatangan (tamu) 'to have unexpected quests'.

These verbs are called "adversative" because the referent of the Subject NP undergoes some adverse event.

9.4 The nonadversative ke-|-an| verbs are few, though most of them are of high text frequency; most of them are associated with some kind of knowledge, or lack thereof. Examples: ketahuan 'to be known'; kelihatan 'to be seen'; kedengaran 'to be heard'; kelupaan 'to be forgotten'; ketinggalan 'to be (unintentionally) left behind'.

10 NOUNS

10.0 Nouns have a few paradigmatic alternates for possession and determination; all the other affixes in nouns are derivational. Such nouns derive from a variety of bases according to categorial membership; see [XX-1]. For syntactic functioning of nouns, see [XX-9].

The affixes concerned may be classified conveniently as follows:

- (a) Paradigmatic ones, i.e. the possessive suffixes -ku 'my'; -mu 'your'; -nya 'his/her/its/their'; and the (non-possessive) determiner -nya 'the'. For syntactic constraints on such cliticized possessives, see [XX-15].
- (b) "Concrete" nominalizing -nya; "abstract" nominalizing ke-|-an (ka-|-en and ka-|-an in some derivations); and per-|-an for a number of nouns from "abstract" to "concrete".
- (c) The prefixes pen- and pemer-, forming actor nouns, derived from men- verbs and memper- verbs respectively; and the confixes pen-|-an (from men- verbs), and per-|-an or pemer-|-an (from memper- verbs), all forming action nouns.
 - (d) Passive-nominalizing pe-.
- (e) Per- in actor nouns derived from ber- verbs; and per-|-an in action nouns and state nouns derived from ber- verbs.
- (f) Nominalizing ke-, pe, and pe- an; nominalizing peri-; and nominalizing mer- and men-.
 - (g) Nominalizing -an.
 - (h) Honorific -(a)nda.

Each of these must now be discussed briefly, in 10.1 through 10.8

10.1 Paradigmatic affixes in nouns are possessive -ku 'my'; -mu 'your'; -nya 'his/her/its/their': rumahku 'my house'; keberangkatanmu 'your departure'; penang-galannya 'his/her/its/their calendar'; manfaatnya 'its usefulness'.

While these possessive suffixes are all determiners, there is one determiner suffix that is not possessive, i.e. -nya 'the/this/that': in di mana mobilnya? 'where is that car?', -nya may make mobil-nya refer to a car which speaker and hearer have (in context or not) identified, without any implication, or even relevance, as to who may be its owner.

Nominalizing affixes, deriving nouns from various categories, are of three kinds: those with -nya, rather "concrete" semantically in most instances; the confix ke-|-an, more "abstract"; and per-|-an (not deriving from ber- verbs), for "abstract" to "concrete", depending on the noun.

Examples with -nya: membengkaknya
'the swelling'; bengkaknya 'the swelling';
tingginya 'height'; letaknya 'position'.
This -nya may be anaphorically possessive
apart from being nominalizing: kampus ini
letaknya di sebelah utara 'as to the campus, that is on the north side'; -nya is
anaphoric in respect to kampus. But in
letaknya kampus itu 'the position of the
campus', -nya is not possessive. Since
:letak is precategorial, we may be sure
the -nya is nominalizing. Precategoriality is crucial here as a test, for in

anaknya Pak Ali 'the child of Mr Ali', the -nya cannot be a nominalizer (since anak is already a noun), and is merely a "ligature" between the possessee-head and the possessor-attribute; see [XX-10].

Nominalizing -nya forms nouns which do not admit of additional affixation paradigmatically. Thus cepatnya 'speed' cannot have, as alternates, cepatnya(*ku) 'my speed', etc.

The "concreteness", semantically, of -nya nominalizations is easily tested in certain pairs: kecepatan 'speed (in general)'; cepatnya '[someone's] speed (at a given moment)'; tingginya is often 'height' in continuity with the ground, while ketinggian would be 'altitude' of an aircraft in flight. Rendahnya meja 'the lowness of the table' contrasts with kerendahan hati 'humility (of heart)'.

Thus the more "abstract" nature of ke-|-an has already been introduced; ke-tinggian and kerendahan have already been illustrated; other examples: kebingungan 'confusion, embarrassment'; keindahan 'beauty'; kepemimpinan 'leadership'; ke-ibuan 'motherliness'; kesulitan 'difficulty'.

Per-|-an may be "abstract" in meaning: (Departemen) Perindustrian '(Ministry of) Industry'; (dunia) perfilman '(the world of) motion pictures'; permasalahan 'set of (related) problems'. For "concrete" meanings, an example could be perapian 'fire [in the kitchen; for cooking]'.

Of Javanese origin, but now fully incorporated in the standard language, are two nouns: one with ka-|-en: kabupaten 'regency district' (bupati 'district head'); and one with ka-|-an: kalurahan (now also frequently found as kelurahan) '(lower) district' (lurah 'head of (lower) district'; a kelurahan is part of a kabupaten).

10.3 Pen- actor nouns are derived from men- verbs, while pemer- actor nouns derive from memper- verbs. Action nouns derived from men- verbs are circumfixed with pen-|-an|, while those derived from memper- verbs are either (more traditionally, and still productively) circumfixed with per-|-an|, or (more recently, and also productively in certain instances) with pemer-|-an|. On constraints, see [XX-1].

Note that actor nouns are invariably prefixed, while action nouns are invariably circumfixed. This is the case no matter whether the immediate verbal origin of those nouns is prefixed or circumfixed. Thus pemuatan 'loading' derives either from memuatkan 'to load [goods on to a vehicle] or from memuati to load [a vehicle with goods]'. Similarly, peringatan means 'warning', i.e. if derived from memperingatkan 'to warn', and 'commemoration' if derived from memperingati 'to commemorate'. As for actor nouns, pemuat may mean 'person/equipment loading [goods on to a vehicle]', or 'person/equipment loading [the vehicle with goods]'. For some morphophonemic exceptions, like

pengrumahan, see [XX-8].

To the examples of actor nouns may be added: pengurus 'manager'; pengajar 'teacher'; pelamar 'applicant'; perintis 'pioneer'; pemersatu 'unifier'. Lately pemer- actor nouns have become more productive than they used to be; one may now encounter: pemerbanyak 'multiplier, duplicator', and similar formations, especially if they are names of instruments or equipment; pemertiga 'the factor 3', and even (encouraged by the language development experts) pemerhati 'attentive person'.

Other action nouns: pengurusan 'management'; pengajaran 'teaching'; pelamaran 'application'; pendaftaran 'enrollment'; pendudukan 'occupation (by force)'. As noted, the action nouns derived from memper- verbs have traditionally been formed by per-|-an circumfixation: per-|-an|satuan 'unification'; perbanyakan 'multiplication, duplication'; perdebatan 'discussion (by way of debate) '. Some of these may be ambiguous as to causative or noncausative meaning, i.e. in case there are both memper- verbs and ber- verbs from which they might be derived. Thus persatuan means 'unification' if derived from mempersatukan, but it means 'unity' if derived from bersatu 'to be one' (8.1; 10.5). It may have been this kind of ambiguity that has led, on the analogy of the pemer- actor nouns, from memper- verbs, to pemer-|-an action nouns (rather than the more traditional per-|-an action nouns), simply to disambiguate action nouns from stative nouns. Hence, of very recent coining, and gaining currency, formations like: pemerbanyakan 'multiplication, duplication'; pemerbendaan 'reification'.

Some pen-|-an nouns are not "action" nouns properly speaking, but signify rather the place of the action: pembaringan 'resting place'; pencucian 'laundry place'; penenunan '(weaving) loom'. There are a few dozen more, and some of this class could also be used as genuine action nouns. For details, see [XX-1]. One pen- noun is not an actor noun: penyakit 'illness, disease' (from sakit 'ill, sick').

10.4 A passive nominalizing prefix pe- has traditionally existed only in very few words, the most frequently used in Contemporary Indonesian being pesuruh 'emissary' (i.e. someone who is being ordered to go somewhere; menyuruh is 'to order'). The "passive" interpretation is historically incorrect, and is presented here as rather straightforward synchronically, as is shown by new formations deliberately coined (and gaining currency), based on that "passive" reanalysis. An example is petatar 'someone being upgraded (in a course); upgradee'. The action noun penataran 'upgrading' (from menatar 'to upgrade', which in its turn is itself a loan from Javanese, i.e. from :tatar), has led to penatar 'the teacher/instructor in upgrading courses', and this in turn has

led to petatar 'upgradee', now widely used in circles organizing such upgrading courses.

The potential productivity of this "passive' pe- formation is severely limited by morphophonemic rules, seeing that pe-as distinct from pen- presupposes that there is a nasal, while pen-derivations from men-verbs with bases beginning with /1/ or /r/, already leave only pe- in the actor noun. For example, pelantik 'inaugurator' (from melantik 'to inaugurate, to install') is not now available for *'inauguree'.

10.5 In two derivations from berverbs, per- prefixation forms the actor noun, while per-|-an circumfixation forms the action noun or stative noun: pelajar 'pupil, student'; perenang 'swimmer' (note, however, that perenang could also be considered as derived from merenangi 'to swim in', as in perenang laut 'someone who swims in the sea'); pelajaran 'lesson, class'; perwujudan 'appearance, shape'; persoalan 'problem'.

Some of these formations may be homonymous or even "neutralized". For example, persoalan may have no fewer than three derivational origins: first, from bersoal 'to discuss (a problem), to ask', as in the present section; second, from memper-soalkan 'to discuss (as a problem)' (10.3); third, from soal 'problem, question' (10.3).

Note also peserta 'follower', from beserta, which occurs rather rarely as a verb ('to go with'), and more normally as a preposition ('together', optionally followed by dengan 'with'); see 12.2.

10.6 A number of nouns are derived by the prefixes ke- and pe-, most of them semantically [+HUMAN]: ketua 'chairperson, head' (tua 'old'); kehendak 'will, desire' (hendak 'to desire, will'); pemalas 'lazybones'; pemalu 'shy person'.

While there seems to be no problem about the analysis of the ke- nouns, the prefix pe- is more problematic; first, for diachronic reasons (the original pa- in earlier Malay has had an extremely complicated history, and a great deal of interference from other indigenous languages has triggered some more); second, and more relevantly, even synchronically, as may appear from the following examples. Though pelaut 'sailor' may be seen as deriving (directly) from laut 'sea', it could be analyzed also as deriving from melaut 'to put out to sea, to sail', simply because morphophonemic rules (see [XX-8]) would preclude nasal /N/ in pe- (because the base begins with /1/). Similarly, pejalan, instead of being derived (directly) from jalan 'road', could be seen as deriving from berjalan 'to walk', with /r/-loss (since an /1/ occurs in the base; see [XX-8]), even though the verb berjalan does

have /r/, in spite of the /l/ in the base; similarly: pelari 'runner' (lari or ber-lari 'to run').

Other pe-derivations, however, must be considered as distinct from some peas a morphophonemic alternate of pen-. Pemalu, for example, cannot be analyzed as deriving from memalukan 'to embarrass', since in that case pemalu would have to mean *'an embarrassing person', while in fact it means 'an embarrassed person' (and considering that *memalu does not exist). An exceptional case is penakut 'coward', which, at least from a semantic point of view, must be analyzed as derived from takut 'to be afraid', even though pen- has the nasal /n/, for if (as the morphemic form might suggest) penakut is the action noun derived from menakutkan 'to frighten', then penakut would have to mean *'someone who frightens [someone else]', which it does not. On the other hand, *petakut is nonexistent.

To finish with some other obvious pe-examples: petugas 'officer in charge' (no /r/, while bertugas 'to be in charge' does have /r/, and the base does not contain either /r/ or /l/); petani 'farmer' (bertani 'to farm'); pejuang 'fighter' (berjuang 'to fight'). On the other hand, phonemic /pə/ is readily seen as a morphophonemic alternate of per- in pekerja 'worker' (bekerja 'to work'); perenang 'swimmer' (berenang 'to swim').

Pe-|-an (not nasalized, not a deverbal action noun) is found in a few words, e.g. pekarangan 'yard'.

What may be an older form of persurvives in the prefix peri-, which for convenience' sake may be classified in this section: peribahasa 'proverb' (bahasa 'language'); perikemanusiaan 'humane-ness' (manusia 'human being'; kemanusiaan 'humaneness'); the older *peribumi (now no longer in use) has become pribumi 'indigenous'. Historians are not, however, in agreement about the origin of this peri-, and it is not unusual to find even nowadays, orthographically separated from the base: peri kemanusiaan, peri hal (or perihal) 'concerning [some topic of official correspondence]'.

The prefixes men- and mer- are found (in free variation) in mertua and mentua, each of which means 'father/mother-in-law'.

A great number of nouns are 10.7 derived, from precategorials as well as from a variety of categories ([XX-1]), by the suffix -an. It would seem that a number of them might be considered as adjectives, rather than as nouns, but we will argue that they are nouns which may be used attributively so that they have more in common with adjectives than do other nouns: see [XX-11]. Also, a number of -an derivations are numerals, and will be exemplified in the numerals section (15.0 (c); 15.3); there is, however, a related use of -an in nonnumerals, see (h), this section.

Words derived by -an suffixation are perhaps best subclassified according to semantic features, as follows:

- (a) There are a few -an nouns which do not differ appreciably from their base nouns: kelompok and kelompokan 'group' would be one example, but native speakers we have consulted have included a few of the (b) items in the present group.
- (b) An -an noun signifies magnification of the meaning of the derivational origin: laut 'sea', lautan 'ocean', or at least something like 'the open sea' (for 'ocean' there is the word samudera); darat 'land [as opposed to 'sea']', daratan 'plain'; ruang 'room', ruangan '(large) room'; gugus 'group', gugusan 'group [of islands]', or 'constellation [of stars]'. Some -an nouns signify a metaphorical application of the meaning of the base noun: duri 'thorn', durian '[kind of] fruit [with "thorn-like" pins on the skin]'; rambut 'hair', rambutan '[kind of] fruit [with hairy skin]'.
- (c) A reduplicated noun of origin takes -an to signify a collective meaning which at the same time suggests variability: kaleng 'can, tin', kaleng-kalengan 'all kinds of cans'; pohon 'tree', pohon-pohonan 'all kinds of trees'; batu 'stone, rock', batu-batuan 'all kinds of stones, rocks'; rumput 'grass', rumput-rumputan 'all kinds of grass'.
- (d) A reduplicated noun of origin takes -an to signify some kind of "imitation" of the referent of the original noun: anak 'child', anak-anakan 'doll'; mobil 'car', mobil-mobilan 'toy car'; kuda 'horse', kuda-kudaan 'rocking horse'.
- (e) The -an noun signifies the instrument for doing the action implied in the base: garisan 'ruler' (garis 'line'); ayunan 'seesaw' (:ayun 'seesaw'); timbang-an 'scales' (:timbang 'weigh').
- (f) Nouns ending in -an signify the place where the action implied in the base takes place: tumpuan 'stepping stone'; landasan 'runway'; punggahan 'loading birth'.
- (g) The -an may nominalize the base, in the manner of the pen-|-an circumfixation for action nouns (10.0 (c); 10.3), but with the 'action' feature "bleached": didikan 'education'; pimpinan 'leadership'; [also] 'head, leader'; balasan 'revenge'; cobaan 'effort'.
- (h) The -an suffix forms "passive" nouns: gigitan (nyamuk) '(a mosquito's) bite [i.e. the effect on the one bitten]'; titipan sepeda 'the storing [i.e. the being stored] of the bicycle'; angkutan barrang 'transportation [i.e. the being transported] of the goods'.

The "bleaching" of the semantic 'action' feature leads to a measure of "neutralization" of the 'active' vs 'passive' opposition, so that some of these -an nouns are open, analytically, to their characterization as belonging to (g), above.

Another problem with these -an nouns, especially in attributive position, is that they may look like being open to

assignment to the adjective category. For example, in barang angkutan 'goods to be [or having been] transported', it may seem appropriate to assign adjectival status to the -an form; similar examples: pakaian cucian 'clothes for laundering'; barang buatan Jepang 'Japanese-produced goods'. However, in [XX-10] it well be argued that these -an forms are much more appropriately described as nouns. Some of these "passive" -an forms, however, are indeed adjectives; see 11.0 (d); 11.4.

(i) In -an words like kiloan 'per kilo', literan 'per liter' the -an suffix is "distributive", the way -an may also be used in numerals (15.0 [g]; 15.7[iv]). There are arguments for considering these as nouns, and accordingly we are including them here.

10.8 The suffix -(a)nda, i.e. with initial /a/ often dropped after consonants, is used in what might be called "honorific" words: ibunda 'mother' (also Bunda in Bunda Maria, Catholic name for 'Our Lady'); ayanda or ayahanda 'father'; ananda 'child'; adinda '(younger) brother/sister'; baginda 'majesty'. These words are very formal, and require an appropriate context.

11 ADJECTIVES

11.0 Affixes in derived adjectives may be classified as follows:

- (a) For degrees of comparison, there are "equative" se- and "superlative" ter-, both in Formal Indonesian; in Informal Indonesian there is a "comparative" as well as an "inclinational" -an.
- (b) There are se- adjectives derived from nonadjectives.
- (c) There are a few adjectives with men- (and with man-).
- (d) Some "passive" -an derivates are adjectives rather than nouns; and some -an adjectives relate to periodicity.

Adjectives in this language have no paradigmatic affixation. However, that is assuming that affixation for degrees of comparison are derivational, not paradigmatic. That is indeed our position, and our reasons for it would take too long to set forth here. Briefly, however, the following may be stated. Comparatives and superlatives are, in phrase structure syntax, governing constituents (as are also "equatives'), and it seems more consistent descriptively to assign them to affixation making a governor out of what would, without the affixation, be a governee, and to derivational rather than paradigmatic status. See [XX-1; XX-12].

For bases, categorially, and constraints on productivity, in the derivation of adjectives, see [XX-1].

The classes (a) through (d) must now be treated, in 11.1 through 11.4

ll.l Examples of adjectives with equative se- are: setinggi 'as high as'; sebesar 'as big as'; selebar 'as wide as'; etc. The "standard" follows without any marking [XX-ll]: setinggi langit 'as high as the heavens'; sebesar rumah 'as big as a house'; etc.

Ter- derivates are superlatives: tertinggi 'highest'; terendah 'lowest'; terkaya 'wealthiest'.

These affixations are characteristic of Formal Indonesian; comparatives are periphrastic, not affixational: lebih ka-ya 'wealthier'; etc.; lebih is 'more'.

In Informal Indonesian, the suffix

-an is a frequent device (through interference from the Jakarta dialect) for
forming the comparative: terangan

'brighter'; murahan 'cheaper' (sometimes
in the sense of 'of inferior quality').

The -an suffix may also be "inclinational",
to express that something is "inclined" to
be X (X being what the adjectival base
expresses): bosanan 'easily bored';
cemburuan 'inclined to be jealous'; sakitsakitan 'often ill'.

11.2 Se-adjectives, not derived from adjectives, and differing also from the se-class of 11.1 in that no "comparative" (as degree of comparison) is implied, are exemplified in: sesuai 'appropriate, in keeping with ', from :suai 'fit'; seimbang 'balanced, in balance [with]', from :imbang 'balanced, in balance [with]', from :imbang 'balance'; setempat 'in (that) place, in the same place', from tempat 'place'; serumah 'in the same house', from rumah 'house'.

Some grammarians like to see sembarang 'any' as derived from barang 'no matter what'; sendiri '(one)self', from diri 'self', and sempurna 'perfect', from purna 'complete' (with intrusive /m/, /n/, and /m/ respectively), but it is doubtful whether that makes sense synchronically, with the exception, perhaps, of sendiri. (Sempurna, however, has been integrally borrowed from Sanskrit, and it is hard to prove reanalysis as suggested, since in fact, in Indonesian, purna- occurs only as a borrowed prefix, not as a base; see 18.0 (b); 18.2.

11.3 Though most derivations with menare verbs (see 3, above), a few are adjectives: menyeluruh 'total', from seluruh 'whole'; menengah 'middle' (notably in sekolah menengah 'secondary school'), from tengah 'half, middle'; membiara 'religious [i.e. living a life of vows]'; menyejarah 'historical' (from sejarah 'history'); mendatang 'forthcoming'.

One such adjective has (through Java-

nese) man-rather than men-: mandiri 'independent', from diri 'self'.

Most -an derivations of the "pas-11.4 sive" kind are nouns, with perhaps more "merging" with adjectival categoriality than in most nouns; see 10.7 (h). Some of these "passive" $-\alpha n$ forms, however, are never used as nouns and cannot be interpreted in any other way than as adjectives. Consider the following -an forms used as attributes: (buku) bacaan '(book of) readings'; (pakaian) cucian '(clothes for) laundering'; (barang) angkutan '(goods for) transportation'; all of these -an forms may also be used independently: bacaan 'reading (material)'; cucian 'laundry'; angkutan 'transportation'. However, some of these $-\alpha n$ forms can only occur as (adjectival) attributes to nouns (and those are the examples of the present class): (permata) curian 'stolen (jewel)'; (anak) asuhan '(a child) raised [i.e. a child one has brought up]'; (budak) belian '(servant) bought [i.e. 'slave']'. These -an forms can never be used as nouns.

Some -an adjectives are "periodic" in meaning: (majalah) bulanan 'monthly (magazine)', from bulan 'month'; (buku) harian 'diary [i.e. 'daily (book)']', from hari 'day'; (cuti) tahunan 'annual (vacation)', from tahun 'year'; (upah) mingguan 'weekly (pay)', from minggu 'week'. Some of these -an adjectives become nouns through ellipsis: mingguan 'weekly (magazine); harian 'daily (paper)'. However, with other nouns not related to the media, such use as nouns is not wellformed.

12 PREPOSITIONS

- 12.0 Prepositions may have the following affixations:
- (a) Paradigmatic affixes, for Object, i.e. -ku 'me'; -mu 'you'; and -nya 'him/her/it/them'.
- (b) The derivational affixes se-, men-, ber-, and ter-.

Prepositions in Indonesian are actually compounds in some forms: di atas; dari bawah, etc., the first component being itself a preposition (di; dari); and the second component a precategorial or a preposition: atas; ata

Classes (a) and (b) are exemplified in 12.1 and 12.2.

12.1 The Object suffixes -ku, -mu, and -nya are cliticized to the preposition: di atasku 'above me'; sesudahmu

'after you'; sebelumnya 'before that'.
There are constraints here, however
(*diku; *kenya, etc.), for which see [XX15], [XX-16].

12.2 The prefix se- may generate prepositions from adjectives: selama 'during'; sehabis 'after (completion of)'; and from adverbs: sebelum 'before'; sesudah 'after'.

Some men- forms function as prepositions: mengenai 'concerning, about'; menurut 'according to'; they are formations of the same syntactic valence as some -ing forms in English, like seeing (that); considering, etc.

A ber- form of a preposition is beserta 'together (with)', followed optionally by dengan 'with'. (Beserta may also be a verb: 'to go with'.)

A ter- preposition is terhadap 'in regard to'.

13 ADVERBS

- 13.0 Four affixations may form adverbs:

 (a) The prefix se-, from a variety of forms.
- (b) The suffix -an, from an adjective base (often reduplicated).
- (c) The suffix -nya, for various kinds of adverbs.
- (d) The circumfix se-|-nya|, for adverbs of manner.

These will be exemplified in 13.1 through 13.4. A final note is found in 13.5.

- 13.1 The prefix se-produces, from a variety of forms, adverbs: e.g. semoga 'may [i.e. an "optative" adverb]'; sedemi-kian 'in this manner'; sedapat mungkin 'in so far as is possible'; sekuat tenaga 'with all [one's] strength'; seketika 'at once, that very instant'.
- 13.2 The suffix -an may be added to a reduplicated form, resulting in adverbs: mati-matian 'with great effort, at all costs' (mati 'dead'); terus-terusan 'constantly, without letup! (terus 'direct, straight'); terang-terangan 'straightforwardly, honestly' (terang 'clear, bright'); mudah-mudahan 'hopefully' (mudah 'easy').
- 13.3 Through -nya suffixation, adverbs may be derived: kiranya 'presumably' (;kira 'think'); rasanya 'perhaps' (:rasa 'feel'); makanya 'for that very reason, that's why' (maka is a particle with a meaning in between English 'so' and 'and');

sebelumnya 'before, previously', sesudahnya 'afterwards, later'.

- 13.4 Finally, the circumfix se-|-nya| forms adverbs of manner, signifying a preeminent degree, from adjectives, simple or reduplicated, or from verbs sebaik-nya 'preferably'; sebaik-baiknya 'in the best possible manner'; secepatnya 'as fast as possible'; sedapatnya 'in so far as possible'.
- 13.5 Technically it would be possible to decompose deictic adverbs like begini 'in this manner', begitu 'in that manner', and deictic precategorials like :sini 'here', :situ 'there [2nd person]', and :sana 'there [3rd person]' by isolation of ini 'this' and itu 'that' (but :sana would be problematic). However, the functional load would be so light as to make the affixes almost ad hoc. In any case, these words are better treated in [XX-15].

14 CONJUNCTIONS

- 14.0 Conjunctions may be derived in two ways:
- (a) Through se- prefixation, as with prepositions.
- (b) Through se-|-nya| circumfixation, either to form "irrealis" conjunctions, or to combine with any of a small set of verbs to form conjunctionalized verbs, to introduce subclauses.
- (c) Through men-|-kan| circumfixation, for one item.
- (d) Through -kan suffixation, for one item.
- These are exemplied in 14.1 through 14.4.
- 14.1 Some conjunctions are formatively identical with prepositions of the setype (12.0 [b]; 12.2): sebelum 'before'; sesudah 'after'; they introduce subclauses. (Not all se- prepositions are homonymous with conjunctions; e.g. sewaktu is exclusively a conjunction.)
- 14.2 Circumfixation by se-|-nya| forms irrealis conjunctions, introducing clauses whose predicate is counterfactual: sean-dainya 'if [IRR]'; sekiranya 'if (hopefully) [IRR]'.

A small set of monomorphemic verbs (pulang 'to go home'; kembali 'to return'; sampai 'to arrive') takes se-|-nya circumfixation to form conjunctionalized verbs (or verbalized conjunctions, if that

term is preferable), introducing a subclause. The conjunction itself, because it contains a verb, is thus a nonfinite verbal subordinee of the clause it introduces, as well. Examples: sepulangnya 'after going home'; sekembalinya 'after coming back'; sesampainya 'after arriving'.

- 14.3 From lain 'other', may be derived, through men-|-kan circumfixation, the conjunction melainkan 'but [correlative with a preceding negative clause]'; see [XX-14].
- 14.4 From the adverb sedang '[durative]' (as in dia sedang bekerja 'he is working') may be derived, through -kan suffixation, the conjunction sedangkan 'while [concessive]' (sedang may also be a conjunction, concessive, like sedangkan).

15 NUMERALS

15.0 As noted earlier (1.2 (d)), numerals, for the purpose of making an inventory of affixes, are most conveniently described together, even though categorially they are not all the same; for example, ordinal numerals are adjectival, while cardinal numerals, as quantifiers, may be "floated".

The affixation in numerals may be itemized as follows:

- (a) Se- is prefixed to certain cardinals as the multiplier 'one' (and to :belas as the counter 'one').
- (b) Se-multiplies, by 'one', numeral classifiers.
- (c) Se- serves as the numerator 'one' for fractions.
- (d) With indefinite numerals se is "equative".
- (e) The prefix :per- forms denominators of fractions.
- (f) Cardinals prefixed by ke- are, in postnominal position, ordinals; in prenominal position, "collective" cardinals; the latter may take anaphoric -nya, for third singular or plural.
- (g) The suffix $-\alpha n$ with numerals may carry a variety of meanings.
- (h) The prefix ber- with certain numerals indefinitely multiplies the numeral of the base.
- (i) Precategorial numerals may be postulated as being prefixed with \emptyset when compounded by multipliers.
- (j) The suffix -nya is found with satu 'one'.
- (k) Ber-, men-, and memper- verbs (circumfixed or noncircumfixed) may be formed from certain numerals, and may take all other paradigmatic affixations available for such verbs.

These items will now be discussed, in 15.1 through 15.11.

15.1 Cardinals with :puluh 'ten'; :belas 'between ten and twenty [with 'ten' as base]'; :ratus 'hundred'; :ribu 'thousand'; and :juta 'million' (all of them precategorials) may take se- 'one' as multiplier in all but :belas, with which se- is a counter 'one': sepuluh 'ten'; sebelas 'eleven'; seratus 'one hundred'; seribu 'one thousand'; sejuta 'one million'. This se- may be replaced by ("free") satu 'one' with :ribu and :juta (satu ribu 'one thousand'; satu juta 'one million'), but not with the others (*satu puluh; *satu belas; *satu ratus). Note that : lusin 'dozen', may take either satu or se-: satu lusin/selusin 'one dozen'.

All se- cardinals may become the base for ke- numerals: kesebelas; kese-ratus; etc.); see 15.6.

- 15.2 Se-multiplies, by 'one', numeral classifiers: sepucuk surat 'a/one letter' (:pucuk is the classifier); sebuah meja 'a/one table' (buah is the classifier); sebiji mata 'a/one eye(ball)' (biji); seorang pegawai 'an employee' (orang); etc. For these classifiers, see [XX-9]. Seorang is exceptional in that it may mean 'someone', in which case another se-may be prefixed: seseorang.
- 15.3 Se-serves as the numerator 'one' for fractions: sepertiga 'one-third'; se-perduabelas 'one-twelfth'; seperseratus 'one-hundredth'. For the prefixation of the denominator :pertiga, :perduabelas, etc., see 15.5. The numerator se- may be replaced by ("free") satu 'one': satu pertiga; satu perduabelas; etc., except for setengah 'one half' (*satu tengah).
- 15.4 With indefinite numerals, se- is "equative": sebanyak 'equally many/much'; tidak seberapa 'not all that many/much'. See 11.1.
- 15.5 The prefix :per- forms denominators of fractions, for denominators higher than 'two': :pertiga 'third'; :perempat 'fourth'; etc. Such :per- forms are precategorials, and need, in morphemic composition, "free" numerators like satu 'one', dua 'two', etc. (satu pertiga 'one-third'; dua perseratus 'two-hundredths'; etc.), but satu may be replaced by se-: sepertiga 'one-third'; sepertiga belas 'one-thir-teenth'; sepertiga ribu 'one three-thousandth'; etc., as noted in 15.3. On pertama, see 15.6.
- 15.6 Ordinal numerals are prefixed with ke-: kesatu 'first' (also: pertama); kedua 'second'; ketiga 'third'; ketiga-puluh enam 'thirty-sixth'; etc. These, like all attributes, follow their "principals": buku keempat 'fourth book'; acara ketujuh 'seventh item [of agenda, e.g.]'; etc. Pertama 'first' was at one time integrally borrowed from Sanskrit, so that diachronic evidence speaks against isolating per- as a prefix; synchronically, however, such a reanalysis is valid, because of the adverb pertama-tama 'in the

first place'; per- may now be considered as a prefix, because of "backformation".

The "same" ke- forms may also precede their "principals" (as do cardinal numerals (see, however, [XX-17]), and then these ke-forms are (cardinal) "collective" numerals: keempat buku itu 'those four books'; ketu-juh acara ine 'these seven [agenda] items'. In certain constructions, however ([XX-17]), such "collective" cardinals may be "floated" (like othe: cardinals): mereka kelimanya 'they, in a group of five', in which case they take -nya.

Ordinal ke- is also found with kese-kian 'umpteenth'; and a "collective" cardinal kesemuanya 'all of them' (floatable)

takes -nya obligatorily.

15.7 The suffix -an in numerals may have various meanings:

(i) With :puluh, :ratus, :ribu, :juta, -an may signify indefinite multiples of their base: puluhan 'tens of'; ratusan 'hundreds of'; ribuan 'thousands of'; jutaan 'millions of'. With :belas, i.e. in belasan the meaning is 'between ten and twenty': anak belasan 'teenager'; belasan hari 'more than ten days, a week or two'.

(ii) With definite multipliers of :puluh, :ratus, :ribu, :juta, the suffix -an indicates an estimate, close to the base: dua ratusan 'about two hundred'; tiga ribuan 'around three thousand'; this formation is used especially if the estimate is likely to be (somewhat, or much) over the number of the base ('in the two hundred/three thousand bracket'). Note: tahun duapuluhan (abad ini) 'the twenties (of this century)'.

(iii) With : ratus, : ribu, and sepuluh ribu (which are denominations of Rupiah banknotes), the suffix -an may signify totals in these denominations: uang ratusan 'money in notes of one hundred'; jumlah ribuan 'total of one thousand notes'; pembayaran dengan sepuluh ribuan 'payment with ten thousand notes'. These $-\alpha n$ forms identify units of totals of money, and denominations in notes are an obvious case; however, these totals need not be in quantities of notes or coins. If someone for some reason were to sort money in piles of, say, three thousand Rupiahs, he would refer to the result of his sorting as (uang) tiga ribuan 'the (piles of) three thousand'.

- (iv) The suffix -an is often used to identify some conventional standard of quantity. This is not necessarily the case only in numerals (about literan, ki-loan, see 10.7[i]), but some numerals take this -an also: lusinan 'per dozen'; ratusan 'per hundred'; etc. Clearly, this use of -an is closely related to that of -an numerals of (iii) of the present section.
- (v) The suffix -an added to satu, in satuan, means 'unit'; it seems that duaan means 'unit of two'.
- 15.8 Indefinite multiples of :ratus, :ribu, :juta may be formed also by pre-

fixing these bases with ber-, with the base optionally reduplicated: beratus-(-ratus) '(in the) hundreds'; beribu(-ri-bu) '(in the thousands'; berjuta(-juta) '(in the) millions'.

- 15.9 A consistent description profits by postulation of derivational \emptyset (zero) as a prefix for the precategorial numerals (:ratus; :ribu; etc.) whenever combined with a nonaffixational form, and this also holds for :per- denominators of fractions. Morphemically, such constructions are compounds; see 16.
- 15.10 The suffix -nya is found with satu 'one', deriving satunya, as in satunya itu 'that one'; and in satu-satunya, an adjective, '(the) only (one)', as in naskah satu-satunya 'the only document'.
- 15.11 From numerals there may be formed ber-, men- and memper- verbs (circumfixed and noncircumfixed): berdua 'to be together [i.e. two persons]'; mendua (hati) 'to be of two minds'; menduai 'to add one [of something] to make two'; menduakan 'to make two [of something], to multiply by two'; berduaan 'to be together [i.e. two persons]'.

Cardinals preceded by memper- are problematic, in that they may represent men-+a:per- denominator of a fraction, or memper-+ cardinal. Memperdua, for example, is given the glossaries 'to divide by two ' and 'to multiply by two' in different dictionaries; mempertiga is listed only as 'to divide by three' never as *'to multiply by three'. It should be noted, however, that memperbanyak is only 'to multiply', never *'to divide into many parts' (of course, there is no such "denominator" as *:perbanyak). In general, the 'division' reading is always correct, and for multiplication kali 'time(s)' may be added to the cardinal number, but then the circumfixation men-|-kan must be used to derive the appropriate verb: menduakalikan 'to multiply by two'; mentigakalikan 'to multiply by three'.

Transitive verbs with cardinals as basic forms may have paradigmatic alternates in the usual manner: kuduakan; kau-pertiga; diperduai; etc.

16 ZERO IN COMPOUNDS

Precategorials, whenever apparently occurring "freely", are usefully analyzed as being prefixed by \emptyset - (zero), to avoid ad hoc descriptions. While the general principle underlying this descriptive postulate must be discussed in detail elsewhere ([XX-5]; [XX-13]), it may be briefly set forth here as follows.

Precategorial status of a lexeme needs some other constituent as closely connected with it as possible, for such a lexeme to have categorial status, i.e. to be concretely used in structural context. Formative affixes are the most

obvious devices for this. When, however, we find precategorials not apparently (i.e. formatively) affixed, we will have to postulate \emptyset - in order not to ignore the "bound" status of precategorials, which are characteristic of this language. Obvious examples are transitive imperatives of men-verbs derived from precategorial bases; thus baca! 'read it' must be analyzed as \emptyset -baca!, as polymorphemic, therefore, if one is not to ignore data which include :baca as a precategorial lexeme; see 7.6. The same holds for those verbal "passives" with morphemically free preposed pronominal agentives, as in kami lakukan, saya baca, etc., which analytically appear as $kami \emptyset-lakukan$ and sayaØ-baca.

Such zeros are postulated also for such compounds as $daya \emptyset$ -juang 'fighting power'; daya Ø-beli 'purchasing power'; and similar nominal compounds with one component derived from a precategorial, but in this case derivationally, not paradigmatically. Verbal compounds of this kind are: \emptyset -kirim surat 'to send a letter'; Ø-cari untung 'to seek profit'; Ø-tukar cincin 'to exchange rings'; etc. The Objects in these compounds are "incorporated" Objects, with all the characteristics of such Objects: inseparable from the verbal form, indefinite, unquantifiable, etc. Since the verbal component cannot be a precategorial (but in themselves :kirim, :cari, and :tukar are), the zero prefix is postulated to keep description consistent.

The same analysis underlies compound numerals, such as $tiga \ \emptyset-puluh$; $sembilan \ \emptyset-ribu$; $dua \ \emptyset-pertiga$; etc.

17 AFFIXES IN LOAN WORDS

By "loan words" here is meant words borrowed by Indonesian from foreign languages; by "foreign" we mean languages outside Indonesia. That is to say, "loans" from languages in Indonesia, in so far as they have brought affixes into the language, are not here considered as loans. In any event, many affixes in Indonesian have gone through a complicated history involving other languages and other dialects within the country; they may be considered as "indigenous" and "Indonesian" as a consequence. In a rare case an affix is still identifiable as not Indonesian but Javanese, i.e. man- (rather than men-), as noted in 3.3; and this also has been included among the Indonesian affixes.

On the other hand, affixes from foreign languages which have entered earlier Malay and Contemporary Indonesian vary rather widely in their degree of "indigenization". The first donor language that comes to mind here is Sanskrit: its influence is very old, and some of the Sanskrit words that have become Indonesian have affixes that have merged in compli-

cated ways with originally Malay ones, so that now for all practical purposes they are indigenously Indonesian; those, then, will not be treated either in what follows, in favor of an almost purely synchronic descriptive approach. To a lesser degree, that obtains also for some Arabic suffixes.

Our criterion for identifying affixes in Indonesian, in words that have been borrowed from foreign languages, is their isolability, either because of the size of the sample and the possibility of identification of the nonaffixational part of the lexemes concerned, or because the originally lexical content of the "affix" can no longer be identified in Indonesian. For example, we count as prefixes a number of Sanskrit norphemes which were originally numerals, but cannot be so considered, from a synchronic point of view, in Indonesian. In other words, those original numerals have now in their Indonesian form "bleached" to affix status.

Identification of affixes is sometimes made more complicated for morphophonemic reasons. As in the previous sections of this paper, however, we will assume those morphophonemic rules to be known.

The following languages are known to have been donor languages for loans in Indonesian: Sanskrit, Persian, Hindi, Tamil, Arabic, Chinese, Portuguese, Japanese, Dutch, and English. It seems, however, that for the borrowing of affixes only Sanskrit, Arabic, Dutch, and English are relevant. Therefore, subsequent descriptions will be subdivided according to these four languages, in 18 through 21.

A final note may be in order here. The status of affixes in foreign loans is often hard to determine. Consider the loans protestan 'protestant' (Dutch: protestant) and protes 'protest' (Dutch: protest). Note that the donor language must be Dutch, not English, since both protestan and protes have the word accent on the penultimate, which is where it is in Dutch, but not in English. (The final /t/ in both loans is dropped due to phonotactic rules of Indonesian.) Can one now, in protestan, postulate a "suffix" $-\alpha n$? Purely analytically this seems possible, but it is highly doubtful if Dutch protestant is, by native speakers, associated with protest, from which, of course, diachronically it derives. If, then, it seems far-fetched to postulate a "suffix" -ant in Dutch protestant, even though Dutch has many other -ant suffixes, then it would be overly "analytical" to postulate a "suffix" -an (in protestan) in Indonesian, which lacks almost entirely other such -an "endings". Is -ator in diktator 'dictator' (Dutch: dictator) a "suffix"? True, Indonesian also has dikte 'dictation' (Dutch: dictee), so again purely analytically such a "suffix" could be postulated. It seems much more realistic, however, to assume that diktator and dikte are not "associated" to the extent that high functional load is suggested, of such "affixes" (which then would have to include a "suffix" -e for dikte!).

In short, the criterium is "functional load", combined with text frequency. We have here opted for a relatively high functional load requirement for the identification of loan affixes, especially from the Dutch. Inevitably, some of the choices made may strike some of our readers as somewhat arbitrary.

18 AFFIXES OF SANSKRIT ORIGIN

18.0 The following affixes of Sanskrit origin may be identified in Indonesian:

- (a) Those deriving from numerals, all of them prefixes: eka- 'one'; dwi- 'two'; tri- 'three'; catur- 'four'; panca- 'five'; sapta- 'seven'; asta- 'eight'; dasa- 'ten'.
- (b) Other prefixes: adi-; antar-; awa-; loka-; maha-; pasca-; pra-; purba-; purna-; serba-; su-; tan-; tuna-; swa-. (c) Suffixes: -a/-i; -wan/-wati; -man.

These will be treated in 18.1 through 18.3.

18.1 A number of prefixes in Indonesian loans from Sanskrit may be identified; they were numerals in the donor language, but never function as such independently in Indonesian. Examples are: ekamatra 'unidimensional'; dwiwarna 'two-colored'; dwifungsi 'double function' (traditionally ascribed to the Indonesian Armed Forces, in dwifungsi ABRI, i.e. for defense and for the people); dwitunggal 'two-in-one, biune'; tritunggal 'triune'; trimatra 'three-dimensional'; triwangsa [archaic] 'the three castes [of Hinduism]'; triwulan 'three months, quarter'; caturtunggal 'quadriune, four-in-one'; Pancasila 'the Five Principles (underlying the Indonesian Constitution)'; pancamarga 'the five ways (i.e. of proving the existence of God)'; pancanegara 'the five states'; saptadarma 'the seven obligations'; saptamarga 'the seven ways'; astakona 'octagon'; dasawarsa 'decade'.

There seem to be no loans with prefixes of Sanskrit origin for 'six' (Sanskrit sas); dictionaries list the "numeral" nawa (Sanskrit for) 'nine', but only as archaic, and not as a prefix.

Most of these loanwords are recent. Pancasila dates back (in its present meaning) to the late forties, after Indonesia had become independent as a nation; dwi-fungsi may be recognized as recent because of the modern loanword fungsi 'function', proving also the productivity of the lexemes with Sanskrit prefixes; pancamarga is a recently coined term with the meaning of 'the five ways' (quinque

viae) to prove the existence of God according to Thomas Aquinas. Others are older. The productivity of words with Sanskrit affixes is increasing, mainly in academic and government circles, as will appear also in 18.2 and 18.3.

18.2 Examples of Sanskrit-derived prefixes which are nonnumeric, are as follows: adikodrati 'supernatural'; adiduniawi 'other-wordly, transmundane'; antarpulau 'inter-island'; antarbenua 'intercontinental'; antarbangsa 'international'; mengawabaratkan 'to de-Westernize, to deoccidentalize'; lokakarya 'workshop'; mahasiswa '(university) student' (siswa 'pupil'); mahaguru 'professor; maharaja 'emperor'; mahabesar 'huge, highly exalted'; mahabaik 'infinitely good'; pascasarjana 'postgraduate'; prasangka 'prejudice'; prakarsa 'initiative'; prakata 'foreword'; prasejarah 'prehistory'; purbakala 'ancient times'; purnawirawan 'retired officer (of the Armed Forces)'; serbaguna 'multipurpose'; serbabisa 'versatile'; serbasalah 'wrong in everything'; su - is of high frequency in Javanese proper names (like Sukarno, Suharto, Sudirman) and countless other formations with su-, which, at least onomastically, means 'good'; tansubjek 'without subject [grammatically]'; tanaktor 'without actor'; tunawisma 'homeless'; tunanetra 'blind'; tunasusila 'immoral, indecent'; finally, swa- is found in swadaya 'self-help'; swakarsa 'spontaneous'; swatantra 'autonomy'; swasembada 'self-supporting'. Sanskrit sva- 'own [3sg]', underlying the Indonesian swa- prefix, underlies also the Indonesian word swasta 'private' [as opposed to 'public'|', but it does not seem descriptively meaningful to isolate, from a synchronic point of view, the swain swasta as a "prefix".

It may be asked whether :tata 'order' should not be listed here as a prefix, since it never occurs alone and is of Sanskrit origin. It appears in such words as tata bahasa 'grammar', tata buku 'bookkeeping'; tata tertib 'discipline, order'. We prefer not to recognize prefixation here, for a variety of reasons. First, : tata is rarely joined, orthographically, with the following word, and, though in principle orthography is usually considered as no appropriate basis for linguistic analysis, in actual fact sociolingually the influence of orthography on the native speaker's lingual consciousness is hard to deny. Second, in a compound like tatatertib, tertib is an adjective and, since tata tertib is a noun, that would make it necessary to ascribe to the "prefix" a nominalizing quality; but for this there seems to be no reasonable basis. in contrast to a great number of Sanskrit loans (lexical or affixational), :tata is not recognizable as of Sanskrit origin (as it fits so wholly in phonotactic word structure in Indonesian) for those without the special knowledge required for that

recognition. For all these reasons, it seems more appropriate not to include. :tata among "affixes".

18.3 The suffixes -a (for masculine) and -i (for feminine) alternate in a number of Sanskrit loan words: putra 'son'; putri 'daughter, princess'; siswa '(male) pupil'; siswi '(female) pupil'; saudara '(male) relative'; saudari '(female) relative'. While there is no synchronically recognizable "host" of these alternations (i.e. there is no such lexeme as *saudar), another Sankrit loan affix alternates for masculine/feminine within the suffix: i.e. as -wan and -wati: sastrawan 'man of letters'; wisatawan 'tourist'; jutawan 'millionaire'; cendekiawan 'intellectual [noun]'; wartawan 'journalist'; sukarelawan 'volunteer'; peragawan '(male) fashion model'; peragawati '(female) fashion model', tokowan 'shopkeeper'. Many -wan nouns do not seem to have -wati alternants, but nothing would seem to stand in the way of those being formed whenever needed.

The formation is productive, as appears in tokowan (toko 'shop' is a Chinese loan). Other formations: Gamawan/Gamawa-ti 'student/teacher at the Gadjah Mada University [in Yogyakarta, Central Java; Gama is an acronym for this University]'; usahawan 'business man'; etc.

There are only a few adjectives with -wan (and they have no *-wati 'alternants!'): rupawan 'handsome, beautiful'; hartawan 'wealthy'; setiawan 'faithful'.

The suffix -man is found in seniman 'artist' (seni 'art').

19 AFFIXES OF ARABIC ORIGIN

19.0 A number of affixes in Contemporary Indonesian derive from Arabic, which language has been the second most influential donor, after Sanskrit (also chronologically), before the more recent influence of Dutch and, to a lesser degree, of English.

Arabic influence, language-wise, is intimately connected with the introduction of the Islam religion to Indonesia. One consequence of this is that there are far more Indonesians who have (at least a rudimentary) knowledge of Arabic than there are who know some Sanskrit; this entails a higher level of consciousness, among speakers of Indonesian, of the Arabic origin of Arabic loans, with a measure of such consciousness also for loan affixes from Arabic. This naturally would make identification of affixes of Arabic origin synchronically more relevant.

The number of affixes from Arabic is fairly small. We ignore here inter-/pre-/post-consonantal vowel changes common to paradigmatic and derivational processes in

Semitic languages, including Arabic, even though such vowel changes are also very much in evidence in Indonesian, in Arabic loan words: the root s-l-m, for example, shows up in such Arabic loan words as sa-lam 'greeting', Muslim 'Muslim', Islam 'Islam', selamat 'well-wishing'; or h-k-m in hukum 'law', hakim 'judge', mahkamah 'court'. Whatever their morphemic status in Arabic, it would be anachronistic to assign them affixational status in Indonesian.

With this in mind, we may identify the following affixes borrowed from Arabic:

- (a) The prefix αl -, equivalent to a determiner.
- (b) The suffixes -in (masculine, plural) and -at (feminine, singular); the suffix -ah (feminine singular); and the adjectivalizing -iah and -i.

These affixes are exemplified in 19.1 and 19.2

The prefix al-, originally in 19.1 Arabic, is an "article" or "determiner". It has been borrowed integrally with the head noun in numerous words appearing frequently across languages as in (in Indonesian form): alkohol 'alcohol'; aljabar 'algebra'; alkali 'alkali'. However, on this basis alone, there would perhaps not be sufficient ground for postulating al - as a prefix, seeing that *kohol, *jebar, and *kali (in this sense) are not identifiable morphemes. However, in this language, al - is uniquely identifying in Alkoran (or Alquran) 'the Koran'; in Alkitab 'Holy Scripture'; and in alhasil 'the result (of all this)', almarhum 'the late, deceased', Almasih 'the Messiah', as well as in other longer expressions of Arabic origin, such as alhamdulillah 'praise be to God'. It seems then that al - is identifiable as a prefix in these and in other Arabic loan words in Indonesian.

The plural suffix -in (masculine) 19.2 is added to such items as Muslim: Muslimin 'the Muslims'; to hadir: hadirin 'those present'. Non-Muslims might say kaum Muslim (kaum is a collective particle) 'the Muslims', where Muslims might prefer kaum Muslimin; however, an expression like para hadirin (para is a collective particle) 'those present' has near-universal currency. The feminine ending (also plural), i.e. -at seems to be more limited to Muslim speakers of Indonesian: Mus-'Muslim women'; hadirat 'those limat (women) present'.

The suffix -ah occurs as a feminine ending in a few words: syarifah '(female) descendant of the Prophet' (from syarif '(male) descendent of the Prophet'); dalalah '(female) go-between' (from dalal '(male) go-between'); almarhumah 'the late, deceased [feminine]' (cf. almarhum 'the late [masculine]'). This -ah suffix

is wholly unproductive.

The adjectivalizing suffixes are -iah, and -i. Examples: ilmiah 'scientific'; harafiah 'literal'; the former derives from ilmu 'science', the latter from huruf 'letter'; so there is also internal vowel change, which, however, it would be too much ad hoc to recognize synchronically as affixational. The -iah ending, however, seems to be productive: alamiah 'natural' (from alam 'nature').

Examples of -i: abadi 'everlasting' (abad 'century') badani 'bodily' (badan 'body'); gerejani 'ecclesiastical' (gereja 'church'); kodrati 'essential' (kodrat 'essence'); hakiki 'essential' (hakekat 'essence'); falsafi 'philosophical' (filsafat 'philosophy'); rohani 'spiritual' (roh 'spirit'); duniawi 'worldly' (from dunia 'world'). Some of these adjectives (like abadi) have been borrowed directly from Arabic, i.e. in their adjectival form. In others, the internal vowel change testifies to direct Arabic origin, even for the adjective. Note the "intrusive" consonant, e.g. /w/ in duniawi (already present in the Arabic original), or /n/ in gerejani (gereja, however, is a Portuguese loan). The -i suffix, then, may be considered to be productive enough for it to be identified as a derivational suffix also synchronically in Contemporary Indonesian.

20 AFFIXES OF DUTCH (AND ENGLISH) ORIGIN

20.0 For a full treatment of loan words in Indonesian with Dutch and English as donor languages, we would have to distinguish between these two languages. For affixes, however, it is more convenient to treat these languages together, because the Dutch and English originals of the affixed forms all derive, without a single exception so far as we are aware, from Graeco-Latin sources, mostly through French. From the examples given below, it would appear that, where Dutch and English sources are etymologically compatible (as they almost invariably are), the immediate source is nearly always Dutch rather than English. (In this regard Indonesian differs rather significantly from Malaysian.)

A few examples may illustrate the above point. In Indonesian ateis 'atheist' (Dutch: atheist), the accent tends to be on the last syllable, which is where it is in Dutch, though not in English. Also, in Indonesian words ending in -asi (as in sublimasi 'sublimation', or spekulasi 'speculation') the ending -asi is because in Dutch the ending is -atie (sublimatie; speculatie), with the t pronounced as /s/, with no loan influence from English -ation.

All this is hardly surprising, given the Dutch influence in pre-independence

Indonesia, compared with which the influence of English has been minor. On the other hand, the influence of English-speaking nations has been on the increase lately, with more speakers now familiar with English than with Dutch. For affixation, however, this has so far made little difference, and changes of adjectivalizing -is (from Dutch -isch) to -ik (more in keeping with English -ic(al)) has for the most part been the consequence of language standardization efforts from above, rather than of spontaneous changes due to foreign influence.

Affixes in these loan words may be. listed as follows:

(a) Prefixes: a-; anti-; de-; dia-; dis-; eks-; in-; in-; inter-; intro-; kon-; kontra-; neo-; non-; ob-; per-; pre-; pro-; se-; sub-; super-.

(b) Suffixes: -al; -ase; -asi;;
-asi; -at; -at; -ering; -if; -ik; -ir;
-ir; -is; -is; -isasi; -isme; -itas;
-itet; -logi; -naut; -si; -si; -sida;
-ur;

These will now be described, in 20.1 and 20.2. The order will be alphabetical, as in (a) and (b), except for a few items in (b), in 20.2, because it is more convenient to treat a few affixes together, out of alphabetical order.

Examples of prefixation: For 20.1 a-: ateis 'atheist' (contrast: teis 'theist'). For anti-: antikomunis 'anticommunist'; antipemerintah 'anti-government'. For de-: deduksi 'deduction' (contrast: induksi 'induction'; produksi 'production'); devaluasi 'devaluation'. For dia-: diameter 'diameter'; diafragma 'diaphragm'; diagnosa 'diagnosis'. For dis-: disinformasi 'disinformation'; diskriminasi 'discrimination'; dislokasi 'dislocation'; distribusi 'distribution'. For eks-: eksplisit 'explicit' (contrast: implisit 'implicit'); eksportir 'exporter' (contrast: importir 'importer'; the contrast is also found in the verbs ekspor 'to export' vs *impor* 'to import'). For in-, (negative in-): intransitif 'intransitīve' (contrast: transitif 'transitive'); insubordinasi 'insubordination'. For in-2 (other): implisit 'implicit' (contrast: eksplisit 'explicit'); informasi 'information'; indikasi 'indication'; indoktrinasi 'indoctrination'. For inter-: interlokal 'long distance [for telephone]' (contrast: lokal 'local'); internasional 'international' (contrast: nasional 'national'). For intro-: introspeksi 'introspection' (contrast: inspeksi 'inspection'; however, for this the indigenous word penilikan is more usual); :introdusir 'introduce'. For kon-: komponen 'component' (contrast: eksponen 'exponent'); konfirmasi 'confirmation' (contrast: informasi 'information'); komposisi 'composition'. For kontra-: kontradiksi 'contradiction'; kontrarevolusioner 'counterrevolutionary'. For neo-: neokolonialisme 'neocolonialism';

neologisme 'neologism'. For non-: nonagresi 'nonagression' nonaktif 'inactive'; nonblok 'nonbloc'; nonpribumi 'not indigenous [noun or adjective]'. For ob-: objek 'object' (contrast: subjek 'subject') objektif 'objective'; obduksi 'obduction'. For per-: permisi 'permission'/'excuse me' (contrast: komisi 'commission'); persen 'percent(age)'. For pre-: preventif 'preventive' (contrast: intervensi 'intervention'). For pro-: produksi 'production' (contrast: reduksi 'reduction'; obduksi 'obduction'); proklamasi 'proclamation'. For re-: rekonstruksi 'reconstruction'; reboisasi or reboasasi 'reforestation'. For sub-: subjectif 'subjective'; subkomisi 'sub-committee'. For super-: superlatif 'superlative'; supersonis 'supersonic' (contrast: subsonic').

To identify a loan affix, it is not sufficient for the affix found in the donor language (as an affix) to have, somehow, survived the transfer to the recipient language, it must also be identifiable as an affix in the recipient language. Hence, some contrastive forms have been given above. But the functional load is in many examples low, and it depends on how high or low one places the functional load threshold whether one would want to identify more, or fewer, prefixes than has been done here. For prefixes like a-, de-, and neo- the functional load is indeed very low, and one may expect such loans to be replaced, later on, by indigenous forms, or to be retained, but then reanalyzed as monomorphemic forms.

20.2 Examples of suffixation: For -al: kolonial 'kolonial' (contrast: koloni 'colony'); (inter)nasional 'international'. For -ase (from Dutch -age, itself from French -age): spionase 'espionage'. For $-asi_1$, deriving from Dutch -atie (accent on ultimate): demokrasi 'democracy'; birokrasi 'bureaucracy'; diplomasi 'diplomacy'. These -asi, words are almost invariably accented on the ultimate, following the accent in Dutch. However, since Indonesian does not have the stresstimed syllable organization found in Dutch (and English), the difference between $-asi_1$ and $-asi_2$ (see next item) is beginning to get neutralized with a number of speakers giving penultimate accent also to $-asi_1$ words like demokrasi, etc. Note that it is possible to analyze $-asi_1$ as consisting of $-at_1$ (see below), and $-si_2$ (see below). For $-asi_2$, deriving from Dutch $-\acute{a}tie$ (accent on the penultimate; deriving in turn from French -(t)ion, cf. English -(t)ion): deklarasi 'declaration'; sublimasi 'sublimation'; spekulasi 'speculation'. For $-at_1$, deriving from Dutch -aat (which in turn derives from French -at): diplomat'diplomat'; birokrat 'bureaucrat'; demokrat 'democrat'. For $-at_2$, deriving from Dutch -aat (but without an -atie expansion; cf. English -ate): direktorat 'directorate'. The -isasi suffix (Dutch: -isatie)

is found in: aklimatisasi 'acclimatization'; kondomisasi '[Government sponsored] program of birth control [through the use of condoms]'; betonisasi 'the covering [of roads, etc.] with concrete; kaderisasi 'cadre formation'. For -ering: riolering 'sewerage'; detasering 'detachment [of troops]'. For -if, from Dutch -ief (in turn from French -if): introspektif 'introspective'; informatif 'informative'. For -ik, from Dutch -iekmostly forming nouns and just a few adjectives: simpatik 'nice, engaging'; semantik 'semantics'; statistik 'statistics'. However, -ik is now increasingly used to replace $-is_1$ (see next item). For $-is_1$, from Dutch adjectivalizing -isch (which in Dutch is pronounced with final /s/): statistis 'statistical'; semantis 'semantic'; optimistis 'optimistic'; pesimistis 'pessimistic'; logis 'logical'; idealistic 'idealistic'; komunistis 'communist [adj.]'; and numerous others. The use of the adjectivalizing -ik for $-is_1$, as in (e.g.) idealistik'idealistic', sēmantik 'semantic', and the like is clearly modeled on the English -ic. What has triggered this is a standardization of terms (especially for scientific and near-scientific terms and the recommendation to make English rather than Dutch the donor language for such adjectives, as far as suffixation is concerned. What favors such recommendations is that a decreasing number of speakers of Indonesian know Dutch, and an increasing number know English. However, the process is complicated by two factors. First, the complicated -ic/-ical distribution in English (e.g., now, for some, logis becomes logik, even though the English adjective is logical, and logic is the noun; in fact for the noun Indonesian still uses the Dutch word logika). Second, because of continuing Dutch influence, many -ik words (like semantik, statistik; see above) are nouns, while now the "same" forms are beginning to be used as adjectives; thus, semantik is becoming an adjective, but there seems to be no replacement, in this shift, for semantik as a noun. For $-is_2$, from Dutch -ist, for nouns: ateis 'atheist'; komunis 'communist', sosialis 'socialist'; idealis 'idealist'; these nouns are accentuated on the ultimate, as they are in Dutch; a prominent example is Pancasilais 'someone supporting the Pancasila [foundation of the Indonesian Constitution]'. In exceptional instances, the accent is distinctive for the difference between $-is_1$ and $-is_2$: organis 'organic' vs organis 'organist'. For -il: profesionil 'professional'; informil 'informal'; etc. The Dutch origin is -eel (as in professioneel, informeel), and its English analogue, -al, is beginning to show its influence: informal, profesional are wholly acceptable. Dutch, however, also has -aal(analogue of English -al), as in Dutch koloniaal, hence Indonesian kolonial

(see above), and it may be some time before the distribution, in Indonesian, of -i l and -al stabilizes, almost certainly, though probably not exhaustively, from -il to -al, and probably not at all from -al to -il, if present tendencies are any indication. For -isme (from Dutch -isme): organisme 'organism'; komunisme 'communism'; optimisme 'optimism'; this suffix is somewhat productive, as appears from sukuisme 'tribalism' (suku 'tribe' is indigenous). For $-ir_1$, from the Dutch infinitival -eren(in turn derived from French verbs in -er): :tolerir 'tolerate'; :internir 'put in jail'; :generalisir 'generalize'; these are all precategorials, and need men-for verbal use (in some instances: $men-|-k\alpha n|$). For $-ir_2$, from Dutch nominal -eur (itself from French -eur): kontrolir 'inspector'; importir 'importer'; eksportir 'exporter', Some of the words of this class of (Dutch) origin, however, take -ur in Indonesian (next item). For -ur, same origin as $-ir_2$: direktur 'director'; redaktur 'editor'. For -itet (from Dutch -iteit): universitet 'university', which seems to be the only example, and that is superseded (since the nineteen fifties) by the (Latinized) form -itas: universitas. For -logi, from Dutch -logie (which is a conflation of two suffixes in the French original): sosiologi 'sociology'; teologi 'theology'; antropologi 'anthropology'; etc. For -naut: astronaut (or astronot) 'astronaut'; kosmonaut (or kosmonot) 'cosmonaut'. Although these words exist also in Dutch, their borrowed Indonesian form is probably directly from English. For $-si_1$, derived from Dutch -tie (in turn from French -(t)ion, cf. English (t)ion): refleksi 'reflection'; inspeksi 'inspection'; rehabilitasi 'rehabilitation'. For -si2, from Dutch -tie, with accent on the ultimate (in turn from French -tie, cf. English -cy): demokrasi 'democracy'; etc. This $-si_2$ is actually the same as the ending of $-\alpha s \tilde{\tau}_1$ (see above), and it is mentioned here only because there is some support for an analysis with $-si_2$ rather than with $-asi_1$, only analytically descriptively, however (since, for example, there are also demokrat 'democrat'; diplomat 'diplomat', in which -at is -at [see above]); but no different data are involved. Finally, for -sida: insektisida 'insectiside'.

For these suffixes, too, functional load differs widely. In particular, the -ase formations are extremely rare, and wholly nonproductive; so is -ering; while -itet largely remains a historical curiosum (since in the beginning of independent Indonesia the University of Indonesia, now Universitas Indonesia, was still called Universitet Indonesia, and survives as such in older records).

NOTES

1. Forthcoming papers are referred to as "[XX]" in the present volume. Definite assignment

to specific authors has not yet been made, but the topics themselves have been decided on.

- [XX-1] "Morphemic derivation in Contemporary Indonesian".
- [XX-2] "Paradigmatic alternation in Contemporary Indonesian".
- [XX-3] "Morphemic reduplication in Contemporary Indonesian".
- [XX-4] "The categorial system in Contemporary Indonesian: precategorials".
- [XX-5] "The categorial system in Contemporary Indonesian: verbs" (this volume).
- [XX-6] "Verbal diathesis in Contemporary Indonesian".
- [XX-7] "Clause syntax in Contemporary Indonesian: degrees of transitivity".
- [XX-8] "Morphophonemic processes in Contemporary Indonesian".
- [XX-9] "The categorial system in Contemporary Indonesian: nouns".
- [XX-10] "Nominal phrases in Contemporary Indonesian: types of attributes".
- [XX-11] "The categorial system in Contemporary Indonesian: adjectives".
- [XX-12] "Government-determined phrase syntax in Contemporary Indonesian".
- [XX-13] "Morphemic composition in Contemporary Indonesian".
- [XX-14] "The categorial system in Contemporary Indonesian: conjunctions".
- [XX-15] "The categorial system in Contemporary Indonesian: pronouns".
- [XX-16] "The categorial system in Contemporary Indonesian: presuppositions".
- [XX-17] "The categorial system in Contemporary Indonesian: numerals".
- 2. The present paper is only a small part of a comprehensive project, for which I work in a team, to whose members I am greatly indebted. These members are: C.D. Grijns (Leiden); Russell Jones (London) whose recent work has been an invaluable source for me especially for sections 17ff; Bambang Kaswanti (Princeton; Jakarta); Harimurti Kridalaksana (Jakarta); Richard McGinn (Athens, Ohio); Anton M. Moeliono (Jakarta); D.J. Prentice (Leiden); H. Steinhauer (Leiden); Sudaryanto (Yogyakarta); J. de Vries (Leiden). This paper owes much to each of them. I alone am responsible for errors.

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SYMBOLS USED

(vertical slash): to separate initial and final portions of circumfixes.

- (diagonal slash): to separate alternatives in cited data, or in their glosses; and in formulations in the body of the text.
- colon, in italics, at the beginning of a cited form): to mark precategorial forms.
- ! (exclamation mark, in italics, after cited forms and, in roman, at the end of glosses): to mark the imperative (except where the utterance is obviously an exclamation, nonimperative).
- [] (brackets): to enclose clarifications not part of the expressions in which they have been inserted.
- COP Copulative word, verbal or non-verbal.
- *(X) (asterisk outside parentheses): to symbolize that X is obligatory, not optional.
- (*X) (asterisk inside parentheses):
 to symbolize that X as an inser tion is prohibited.
- (X) (parentheses): to mark X as optional.
- [+Z] (brackets, with "plus" mark inside): to symbolize that semantic feature Z is present.

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The following items are selective. I have used many published sources over the years, and am not conscious any more of a number of them. Partly as a consequence of this, and because much in this paper, even though some of it is found in handbooks, is due to original data research, the bibliography below looks somewhat heterogeneous, and in some instances serves only a limited purpose. The Javanese grammars, for example, have merely been cited as sources of the term "propositive". The Hopper and Thompson article underlies understanding, in my paper, of "transitivity" and (in part) of "ergativity". Some positions taken in the present paper are in opposition to what one may find in standard handbooks, but I have not referred to them, to keep the paper as little controversial in tone as possible.

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