

Figure 4. Dialect relationships of 70+%. Double lines show mutual relationship within the enclosed area

THE ILLUSIVE SIMPLE NOUN PHRASES¹

Marmo Soemarmo

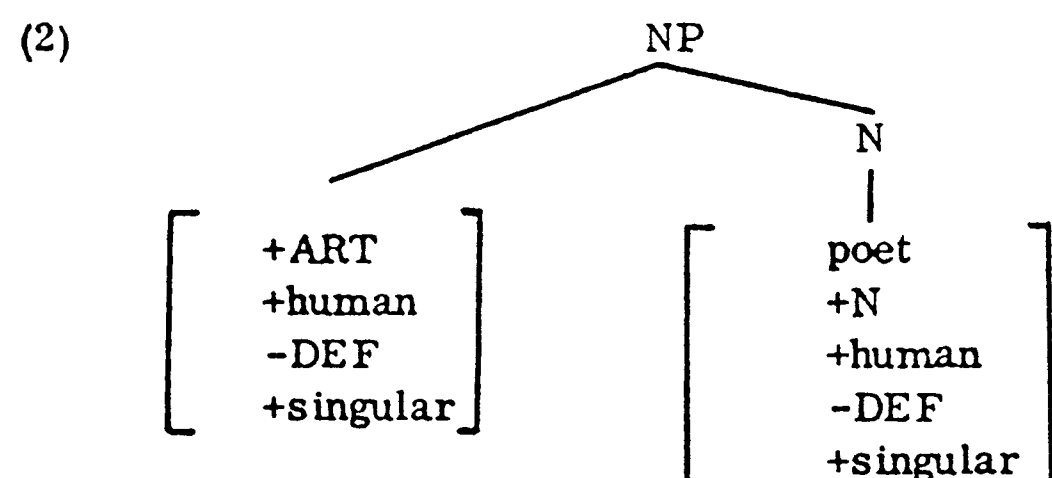
Until recently, simple noun phrases such as the boy in English, anak itu in Bahasa Indonesia, and bocah kuwi in Javanese have been considered to be the simplest and most concrete aspect of language, particularly in contrast with the notoriously complex verbal system. However, as soon as attempts are made to provide explicit description of their behavior, the illusiveness of simple noun phrases emerges. Numerous proposed analyses are currently available and have far-reaching implications to the basic assumptions of transformational linguistic theory, such as the centrality and autonomy of syntax.

Articles or determiners such as a in English, itu in Bahasa Indonesia, and kuwi in Javanese can no longer be automatically assumed as lexical items belonging to the category ART or DET in NP \rightarrow DET + N, or NP \rightarrow N + DET given in early works such as Chomsky (1957), Lees (1960), and Chomsky (1965). Pronouns can no longer be automatically defined as "words in place of nouns," or as the output of

a pronominalization transformation which substitutes a pronoun for its identical noun antecedent. Grammatical descriptions such as Postal (1966) and Jacobs and Rosenbaum (1968) give arguments for the claim that there is no such category as ART in the deep structure. Jacobs and Rosenbaum (1968; p. 86) gives the following as a partial deep structure of the noun a poet:

- (1)
- | | |
|---|-----------|
| | NP |
| | |
| | N |
| | |
| [| poet |
| | +N |
| | +human |
| | -DEF |
| | +singular |
|] | |

where poet is the abbreviated notation for the phonological (and probably also semantic) features, and the rest of the features are syntactic features. To generate the surface structure, a transformation called Article Transformation is applied which produces an additional segment and copies all the syntactical features except the categorial features that is identical with the terminal symbol generated by the Phrase Structure rules. The output of the application of Article Transformation is roughly:



The second lexical pass (also called the second dictionary look-up by some) replaces the segment [+ART] with the appropriate lexical item a.

Perlmutter (1970; p. 233) argues that "[...] although the definite and indefinite articles have the same status in the surface structures, the indefinite article is represented in the deep structure not as an article but as the numeral one." Postal (1966) claims that pronouns are in fact articles. The analysis given by interpretive theorists such as Jackendoff (1972; p. 108) claims that "Instead of being produced by transformations, pronouns and reflexives will be generated by the base component as lexical items, marked with the feature [+pro], but like other noun phrases, unmarked for reference [...]. Rules of semantic interpretation establish relations between pairs of noun phrases, marking them coreferential or noncoreferential." Bach (1968; p. 91) maintains that "[...] the difference between [...] 'parts of speech' exist only on a relatively superficial level [...]" and postulates a system involving three basic entities he calls sentences, terms, and predicates or contentives. An excellent summary and evaluation of the various proposed analyses on determiners and pronominalization up to 1969 can be found in Stockwell, Schachter, and Partee (1973).

One of the major obstacles in attempting to analyze simple noun phrases in languages such as Bahasa Indonesia and Javanese, which are at most only distantly related -if not totally unrelated- to English, is the lack of specification of the notions definiteness, pronouns, etc. In this paper, I am suggesting that the undefined features [DEF], [SPEC], etc., currently used in transformational grammars are not suitable to describe simple noun phrases (including pronouns) in Bahasa Indonesia and Javanese. Although I also believe that my general approach to the analysis of noun phrases in these languages can and probably should be used to describe languages such as English, justifications for the universal nature of the analysis will not be given here. Occasional references to and comparisons with English will be made solely for the purpose of exposition. Specifically, I will show that the systematic relationships between different forms of simple noun phrases and between anaphoric nouns and their antecedents can be revealed only if a certain set of feature categories are used. Below is a list of the features and their definitions. Each will be further elaborated.

(3) a. [S]: subcategory in terms of the specificity of the

reference. A noun is [+S] if the speaker refers to a specific set or member of a set, and [-S] if the speaker refers to any (nonspecific) set or member of a set.

- b. [H]: subcategory in terms of the speaker's pre-supposition about the hearer's knowledge of what the speaker is referring to. A noun is [+H] if the speaker presupposes that the hearer knows which set or member of a set the speaker is referring to, and [-H] if the speaker presupposes that the hearer does not know what set or member of a set the speaker is referring to.
- c. [A]: subcategory in terms of the availability of an antecedent. A noun is [+A] if the speaker refers to a set of member of a set that is 'aforementioned' and [-A] if the speaker refers to a set or member of a set that is being mentioned for the first time. [+A] nouns are also known as anaphoric nouns.
- d. [P]: subcategorization in terms of the availability of a special form, generally known as a pronoun. A noun is [+P] if it is a pronoun and [-P] if it is not a pronoun.

The terms set and member of a set are used in their normal mathematical linguistic sense, as defined in works such as Wall (1972) and Cooper (1964). Note that a reference to a set or membership of a set does not have to meet the existential requirement.

Although speaker-oriented expressions are used to define the features [S] and [H], feature specifications are neutral with regard to speaker and hearer. The statement "a noun is [+S] if the speaker refers to a specific set", for instance, can be rephrased as "a noun is [+S] if the hearer interprets the speaker as referring to a specific set." Consider, for example:

(4) Wash the car.

(5) {Which
What} car?

One way to characterize the meaning of (4) is to state that the speaker asks the hearer to wash a (certain) car which the speaker presupposes the hearer knows. The meaning of (4) can also be characterized by stating that the hearer interprets the speaker as asking the hearer to wash a (certain) car which the speaker presupposes the hearer knows. Responses such as (5) can be used to indicate that the speaker's presupposition is in error. To be able to do that, the hearer has to know what the speaker presupposes.

Given the above categorial features, there are theoretically sixteen possible classes of nouns. The diagram (6) below shows the possible classes of nouns and the possible surface forms available in Bahasa Indonesia (BI), Javanese (JAV), and English (Engl), where N stands for noun and P for pronoun.²

(6) Class	Features	BI	JAV	ENGL
1.	-S; -H; -A; -P	N	N	a(n)+N
2.	+S; -H; -A; -P	N	N	a(n)+N
3.	-S; +H; -A; -P	N+nya	N+e	the+N
4.	+S; +H; -A; -P	N+nya	N+e	the+N
5.	-S; -H; +A; -P	N+itu	N+kuwi	the+N
6.	+S; -H; +A; -P	N+itu	N+kuwi	the+N

Class	Features	BI	JAV	ENGL
7.	-S;+H;+A;-P	N+nya+itu	N+e+kuwi	the+N
8.	+S;+H;+A;-P	N+nya+itu	N+e+kuwi	the+N
9.	-S;-H;-A;+P	P	P	P
10.	+S;-H;-A;+P	P	P	P
11.	-S;+H;-A;+P	P	P	P
12.	+S;+H;-A;+P	P	P	P
13.	-S;-H;+A;+P	P+itu	P+kuwi	P
14.	+S;-H;+A;+P	P+itu	P+kuwi	P
15.	-S;+H;+A;+P	P+itu	P+kuwi	P
16.	+S;+H;+A;+P	P+itu	P+kuwi	P

The diagram shows that there are more surface forms in BI and JAV than in ENGL, and that classes 1 through 8 only have four different surface forms in BI and JAV (each is ambiguous with respect to [S]) and ENGL has only two different surface forms.

The difference between [+S] and [-S] is very close to the difference between [+Specific] and [-Specific] used by Fillmore (1966), Baker (1966), Karttunen (1968), Dean (1968), and others, to account for the different interpretations of the indefinite article a in sentences such as:

- (7) John lifted a piano.
(8) John tried to lift a piano.

The noun phrase a piano in (7) refers to a specific piano, a unique member of a set, while in (8) the noun phrase refers to any nonspecific piano. Consider further the following sentences:

- (9) Bill was looking for a dog.
(10) Did he find it?
(11) Did he find one?

The noun phrase a dog in (9) is ambiguous. The hearer may respond to (9) by asking (10) if he interprets the noun phrase as [+S], and he may respond by asking (11) if he interprets the noun phrase as [-S].³

In some cases, the interpretation of a noun is determined by its verb. In JAV, for instance, one of the several functions of the suffix i is to constrain the occurrence of [-S], as in:

- (12) Ecki nggolek sopir, awit sopire sing saiki arep pindah.
Ecki looked for a driver, because the current driver is leaving.
(13) Ecki nggoleki sopir sing teka wingi.
Ecki looked for the driver who arrived yesterday.

The noun sopir (a driver) in (12) is [-S] and the one in (13) is [+S], because the verb in (13) is suffixed with i, while the one in (12) is not. The deletion of awit (because)-phrase in (12) and the relative clause in (13) will not alter the interpretation of the underlined nouns in JAV. These phrases are included to make the JAV sentences more natural.

To elaborate the distinction between [+H] and [-H], let us observe the following sentences:

- (14) Bocah kuwi arep ngumbah montor.
The child will wash a car.
(15) a. Bocah kuwi arep ngumbah montore.⁴
The child will wash the car.
b. Montore arep dikumbah bocah kuwi.
The car will be washed by the child.

- (16) (BI): Mobilnya akan dicuci anak itu.
The car will be washed by the child.

- (17) Aku tuku montor.
I bought a car.

- (18) Jarene Ronnie kowe tuku montor.
According to Ronnie you bought a car.

The speaker presupposes that the hearer does not know the reference for montor (a car) in (14), so the noun is [-H]. On the other hand, the speaker presupposes that the hearer knows the reference for montore (the car) in (15a and b) and mobilnya (the car) in (16). Of course, the speaker knows the reference of the noun. So, the nouns are [+S;+H]. Montor (a car) in (17) is [+S;-H], and montor (a car) in (18) is [-S;+H], since the hearer obviously knows the reference although the speaker does not.

Nouns which Stockwell, et al. (1973) refers to as "non-linguistically anaphoric nouns" are [+H] nouns. Whether the term implies that the specification of the meaning and the form of this type of nouns is beyond the scope of a competence model grammar is not clear. It is pointed out in Stockwell, et al. (1973; p. 74) that linguists such as Sørensen (1959) and Vendler (1968) do not make a distinction between definite nouns with relative clauses and non-linguistically anaphoric nouns. The analysis proposed in this paper makes it possible to show the differences and similarities between these two types of nouns, as well as between these and other types of nouns in terms of a common set of features. The relationship between [H] and the other features will be discussed below after all the features have been discussed.

Let us now turn to somewhat more familiar features, the [A] and [P]. A noun is [+A] if it is "aforementioned" and [+P] if it is in the form of a pronoun (or proform). A [+P] is not necessarily [+A], or vice versa, and there are at least three different ways to indicate that the noun is aforementioned: by using a certain article, a simple pronoun, or a superordinate pronoun. To illustrate the forms, processes, and the relationships between nouns having specific values of [A] and [P], observe the following sentences:

- (19) (BI): Mengapa mereka disini?
Why are they here?
(20) Ronnie tuku montor setaun kepungkur. Montor kuwi saiki wis rusak.
Ronnie bought a car a year ago. The car is already broken down now.
(21) Ronnie tuku montor setaun kepungkur, nanging deweke isih arep tuku siji maneh.
Ronnie bought a car a year ago, but he still wants to buy another one.
(22) Ronnie tuku montor setaun kepungkur, nanging deweke kuwi ora bisa nyopir.
Ronnie bought a car a year ago, but (the) he can not drive.
(23) Ronnie tuku montor, nanging bocah kuwi ora bisa nyopir.
Ronnie bought a car, but the child can not drive.
(24) *Ronnie tuku montor, nanging bocah ora bisa nyopir.
*Ronnie bought a car, but child can not drive.

Mereka (they) in (19) is [-A;+P] when used to refer to objects (animate or inanimate in English, human in BI) which are visible to the speaker and the hearer, and some gesture such as pointing usually accompanies the utterance. Montor kuwi (the car) in (20) are obviously [+A;-P]. But, what is

deweke (he) in (21)? Are they $[-A;+P]$ or $[+A;+P]$? If the former, how is this case different from $[-A;+P]$ in (17)? If the latter, what is deweke kuwi ((the) he) in (22)? Moreover, we also have bocah kuwi (the child) in (23) which is the superordinate pronoun referring to the aforementioned Ronnie. (Other superordinate pronouns such as the boy and the student can also be used.) The ungrammaticalness of (24) is due to the occurrence of the superordinate pronoun bocah (child) without the article kuwi (the).

The various forms of the noun phrases in (17) - (24) are interrelated in a manner that can be expressed by a set of ordered rules.

- a. The first rule is a segmentation transformation similar to the one given in Jacobs and Rosenbaum (1968). This rule is obligatory.

T-segmentation (Oblig.):

$$X, [+N; \#A; F_1], Y \Rightarrow X, [+N; \#A; F_1] + [+ART; F_1], Y$$

where $\#A = +A$ or $-A$, and F_1 = the rest of the syntactical features of N . The form of the article is determined by the value of $[A]$. In JAV and BI, the article is \emptyset if the noun is $[-A]$. The suffixes e and nya in JAV and BI, respectively, which can be used with $[-A]$ nouns, will be discussed later. Unlike ENGL, JAV and BI allow the segmentation transformation to apply to proper nouns as well, as in:

(25) Ronnie tuku montor, nanging Ronnie kuwi ora bisa nyopir.

Ronnie bought a car, but (the/that) Ronnie can not drive.

- b. The second rule is an optional rule of simple pronominalization and superordinate pronominalization:

T-pronominalization (Opt.):

$$X, [+N; +A; F_1], Y \Rightarrow X, \left\{ \begin{array}{l} [+N; +A; +P; F_1] \\ [+N; +A; F_a] \end{array} \right\}, Y$$

where Y contains $[+ART]$ as a result of the segmentation transformation, so deweke kuwi ((the) he) in (22) is derived by the application of the first two rules where the first choice in the second rule is taken, and F_a is the portion of F_1 which constitutes the superordinate class name such as bocah (child) in (23). The features for Ronnie include $[+human; +male; +young; F_1]$, and if $F_a = [+human; +young]$, the superordinate pronoun is bocah (child). If $F_a = [+human; +male; +young]$, the superordinate pronoun is bocah lanang (boy), and so on. The derivation of superordinate pronouns such as the bastard, the loud mouth, and the spoiled brat seems to involve the application of some semantic projection (amalgamation) rules, which I will not elaborate here. JAV and BI utilize superordinate pronouns more than languages such as English. As a matter of fact, deweke (he/she) is the only simple pronoun in JAV and dia (he/she) and mereka (they) are the only pronouns in BI, and these pronouns are limited to $[+human]$.

- c. The third rule is an optional article deletion rule.

T-Art Deletion (Opt.):

$$X, [+P; F_1], [+ART; F_1], Y \Rightarrow X, [+P; F_1], Y$$

The rule generates simple pronouns such as deweke (he) in (21). This rule states that deweke (he) and deweke

kuwi ((the) he) have the same meaning and distribution for the simple reason that I have not been able to find cases where only deweke or deweke kuwi can occur. To disallow the generation of bocah (child) without kuwi (the) in (24), F_1 should not be just F_a .

The above rules are applied at the point where nouns and pronouns are either $[-A]$ or $[+A]$. Both undergo the segmentation transformation. When the noun is $[+A]$, it can have the form of a noun, a pronoun, or a superordinate pronoun, each with an article such as kuwi (the). Furthermore, there is an option to delete the article if the noun phrase is a pronoun + article. Anaphoric superordinate pronouns have to have an article. I suspect there is a deeper syntactic and/or semantic motivation for the article requirement, but at the moment I have no idea what it is.

The specification of $[A]$ and $[P]$ in (19) - (25) can now be elaborated. Mereka (they) in (19) is $[-A;+P]$ in the deep structure. If the pronoun is mentioned for the second time, the anaphoric rule will convert $[-A]$ into $[+A]$, and it can be expressed with mereka or mereka itu. Recall that the segmentation transformation is obligatory, which means that mereka itu can also be used in (19), even though the noun is being mentioned for the first time. Montor kuwi (the car) in (20) is $[+A;-P]$, where $[+A]$ is derived by anaphora. There are currently two possible ways of looking at anaphora: a process of changing one of the identical nouns or a process of marking coreference. The latter makes use of a table of coreference, suggested by Jackendoff (1972). The choice has no relevance for our purpose at this moment, so I will not make a choice, nor elaborate the point. Deweke (he) in (21) is $[+A;+P]$, which is derived by the anaphoric process and the simple pronominalization rule, but the article deletion rule is also applied. Deweke kuwi ((the) he) in (22) is also $[+A;+P]$, but the article deletion rule is not applied. Bocah kuwi (the child) in (23) is $[+A;-P;F_a]$, where $[+A]$ is the result of anaphora.

It is instructive at this juncture to encourage the reader to compare the analysis given here and the ones given by Postal (1966) with regard to the origin of simple pronouns, and Gleitman (1961) and Kuroda (1965 and 1966) with regard to a process called Definitization in English. See also Stockwell, et al. (1973).

Somewhat similar to the process of definitization is the relationship between $[H]$ and $[A]$, namely, whether $[+A]$ is always $[+H]$. Let us take a look at sentence (20) again:

(20) Ronnie tuku montor setaun kepungkur. Montor kuwi saiki wis rusak.

Ronnie bought a car a year ago. The car is already broken down now.

Montor (a car) in (20) is $[-H;-A]$ and montor kuwi (the car) is $[+A]$ but is it $[-H]$ or $[+H]$? In other words, does the anaphoric process convert $[-H]$ into $[+H]$? The feeling of $[+H]$ -ness of montor kuwi (the car) is the building-in of the information "the car that Ronnie bought," which motivates linguists such as Sørensen and Vendler to posit a deleted specified relative clause in the underlying form of a definite noun in English. It seems to me that the conversion of $[-A]$ into $[+A]$ does not automatically convert $[-H]$ into $[+H]$. Consider sentences such as:

(26) Bocah kuwi arep mancing iwak.

The child will catch a fish.

(27) Nganti saiki durung oleh.

He has not caught any (one) (fish) up to now.

(28) Iwake arep digoreng.

He will fry the fish.

Iwak (a fish) in (26) is [-H;-A]. If (27) continues (28), the second mention of iwak (a fish) is expressed by Ø in JAV and any (one) (fish) in ENGL, and the speaker still assumes that the hearer does not know the reference. However, if (28) follows (26) the second mention of the noun is expressed by iwake (the fish), and the speaker presupposes that the hearer knows which set or member of a set the speaker is referring to. So, both [-H;+A] and [+H;+A] are available. From the point of view of the old concept of linguistic asymmetry, the availability of all the four forms ([+H;+A], [+H;-A], [-H;+A] and [-H;-A]) increases the descriptive adequacy of the features [H] and [S]. If (28) follows (26), the [+H] in (28) seems to be derived from [-H] in (26) indirectly. There seems to be a deleted transitional clause between (26) and (28), something like:

(29) Yen oleh iwak.

If he catches one (specific fish).

If this is true, then the conversion of [-H] into [+H] is not the result of the conversion of [-A] into [+A], and there is an independent rule to convert [-H] into [+H]. It seems further that this independent rule has something to do with conditional clauses. The exact nature of this rule is, at the moment, not known to me.

In previous examples, the article kuwi (the) is the only article used with [+A]-nouns. A further study on the relationship between [A] and [S] shows that the value of [S] also determines the form of the noun phrases. For instance:

(30) Ronnie nggolek batur. Nganti saiki deweke durung oleh batur/*batur kuwi.

Ronnie looked for a helper. Up to now, he has not found a helper/*the helper.

(31) Ronnie wis oleh batur. Nanging deweke ora seneng karo *batur/batur kuwi.

Ronnie found a helper. But he does not like a helper/the helper.

Batur (a helper) in (30) is [-S;-H;-A;-P]. The second mention of it can not be expressed by batur kuwi (the helper). On the other hand, batur (a helper) in (31) is [+S;-H;+A;-P] and the second mention of it has to be expressed by batur kuwi (the helper). Cases such (30) and (31) show the independence of [S] from [A]. A conversion of [-A] into [+A] does not automatically convert [-S] into [+S]. Batur (a helper) in the second sentence in (30) is [-S;-H;+A;-P] and batur kuwi (the helper) in the second sentence in (31) is [+S;-H;+A;-P].

We have seen that all four features are independent of each other, which strongly indicates the appropriateness of the description in terms of these features.

The suffix e in JAV and nya in BI illustrate the appropriateness of the analysis based on features that are defined in terms of set and membership of set, instead of by references to objects, actual or imagined. Languages such as JAV and BI (and to a lesser extent, ENGL) utilize a process which can be called a set formation process. Roughly stated, it is a union of two or more nouns into a set. For instance:

(32) Ronnie tuku sapi karo jaran. *Jaran kuwi/Jaran karo

sapi kuwi/ Jaran karo sapine kuwi/ Jarane/ mati mau esuk.

Ronnie bought a cow and a horse. The horse/ The horse and the cow/ The horse and the cow/ The horse/ died this morning.

(33) (BI): Tina dan Maria sakit. *Dia/ Mereka tidak datang. Tina and Maria are sick. *She/ They are not coming.

(34) Ronnie lagi turu. *Ronniene/ Deweke arep tangi jam papat.

Ronnie is sleeping. *The Ronnie/ He will wake up at four.

(35) Ronnie ngundang Ecki. Eckine ora krungu.

Ronnie called Ecki. Ecki did not hear (him).

In JAV, once two or more nouns are formed into a set, a reference to one of the members of the set whose members are mentioned for the second time should be expressed by N+e.⁵ The form N+kuwi can only be used to refer to a set, or all the members of a set. Note that there are three nouns in (32), Ronnie, cow, and horse. All three can be considered a set by a process of set formation. So, a reference to cow and horse can be considered a reference to some of the members of the set whose members have been mentioned before. In JAV, N+e has to be used in such a case. It seems that set formation is obligatory if the nouns are conjoined and optional if they are not. ENGL seems to require set formation in pronominalization of conjoined nouns, as in (33). Neither BI nor ENGL allows pronominalization of only one of the members of a set whose total membership has been mentioned before. However, ENGL seems to allow pronominalization of a member of a set if the members are of different gender, as in:

(36) I called John and Mary, but SHE did not hear me.

(37) I called John and Mary, but they did not hear me.

The pronominalization of a member of a set in (36) has to be accompanied by assignment of the primary phrase stress to the pronoun (known in this case as the contrastive stress). The sentence (36) is ungrammatical if she is not stressed. They in (37), on the other hand, does not have to be stressed, since it refers to the entire set.

The second sentence in (34) is ungrammatical if N+e is used, because there is only one noun that has been mentioned before, so set formation can not be applied. The ungrammaticalness of (34) with N+e is not due to the use of a proper noun, because e can also be suffixed to a proper noun, as in (35). Recall that N+e and N+nya are used to express [+H] in JAV and BI, respectively, where [+H] refers to the only member of a set, as in (15) and (16). This is a logical consequence of set formation, because to be able to say "the only member of a set" one has to form a set first, then talk about its member. It is also a logical consequence of set formation that a reference to a partial membership of a set has to be expressed with N+e which is [+H]-noun, because set formation is basically a specification of the members of a set, and thus the speaker can presuppose that the hearer knows which member of which set the speaker is referring to.

We have now provided a unified account of various cases of N+e, which indicates the appropriateness of the use of the feature [H], and the definition of it.

In summary, the analysis proposed in this paper assumes that the underlying forms of simple noun phrases are nouns whose features include [+S] or [-S], plus [+H] or [-H],

plus [-A], plus [+P] or [-P], and there is no category ART in the deep structure. To generate the appropriate surface structures, the following rules should be applied in the given order:

- a. Set Formation - Optional.
- b. Anaphora - Obligatory.
- c. Segmentation (including affixation) - Obligatory.
- d. Simple and Superordinate Pronominalization - Optional
- e. Article Deletion - Optional.

The proposed analysis clearly makes no precise distinction between syntax and semantics. This approach is not based on a preconceived notion that the assumption of autonomy of syntax is false, but is guided by a desire to arrive at an analysis that can account for a native speaker's intuition about simple noun phrases in Javanese and Bahasa Indonesia.

Ohio University at Athens, Ohio

FOOTNOTES

1. This paper is a complete revision of my earlier works in Soemarmo (1970 and 1971). Although the same set of features are being used in this paper, I have found that my earlier conception of the nature of these features needed to be modified to account for cases which I was not aware of then. I would like to thank my graduate students who made some helpful comments when I presented this analysis in my Semantics class last Spring, 1974, and my colleague Fonda Fry, who read the draft of this paper.

2. The Javanese sentences used in this paper are in the Ngoko-form. See Soemarmo (1972 and in preparation) for attempts to provide a description of the different levels of Javanese within the framework of transformational theory. Being a Javanese, my Bahasa Indonesia is obviously influenced a lot by Javanese. Some of my non-Javanese Indonesian friends have indicated that their use of nya and itu is different from mine. For this reason, only a limited number of sentences in Bahasa Indonesia are used as examples. Ungrammatical sentences or phrases are marked with the commonly used asterisk (*).

3. In predicate calculus, a sentence containing [-S] may express a propositional function H(x), while the one containing [+S] may express a propositional function H(s), the instantiation of H(x).

4. The suffix e is ambiguous. It can also mark possessive, so montore can also mean his/her car in (15a). However, in the more natural sentence (15b), montore is not ambiguous. It means the car ([+S:+H]). See below for other uses of e.

5. The n in sapine is morohophonemically inserted when the final sound of the noun to be suffixed is a vowel.

REFERENCES

BACH, Emmon (1968), "Noun and Noun Phrases," in Bach, E. and R. Harms (eds.), Universals in Linguistic

Theory. New York: Holt, Rinehart and Winston, Inc.
 BAKER, C. LeRoy (1966), "Existentials and Indefinites in English," unpublished paper, University of Illinois.
 CHOMSKY, N.A. (1957), Syntactic Structures. The Hague: Mouton & Co.
 CHOMSKY, N.A. (1965), Aspects of the Theory of Syntax. Cambridge, Mass.: MIT Press.
 COOPER, William S. (1964), Set Theory and Linguistic Description. The Hague: Mouton & Co.
 DEAN, Janet (1968), "Nonspecific Noun Phrases in English," Computational Laboratory of Harvard University, Report No. 20.
 FILLMORE, Charles J. (1966), "A Proposal Concerning English Prepositions," Georgetown Monograph Series on Language and Linguistics, No. 19, 19-33.
 GLEITMAN, Lila R. (1961), "Pronominals and Stress in English Conjunctions," Language Learning, XI, 157-170.
 JACKENDOFF, Ray S. (1972), Interpretive Semantics. Cambridge, Mass.: MIT Press.
 JACOBS, R. and ROSENBAUM, P. (1968), English Transformational Grammar. Boston: Blaisdell, Publishers.
 KARTTUNEN, Lauri (1968), What Do Referential Indices Refer to? Santa Monica, California: Rand Corporation Publication No. P-3854.
 KURODA, S-Y. (1966), "English Relativization and Certain Related Problems," in Reibel, D. and S. Schane (eds.), (1969). Modern Studies in English. Englewood Cliffs, N.J.: Prentice-Hall, Inc.
 LEES, R.B. (1960), The Grammar of English Nominalizations. The Hague: Mouton & Co.
 PERLMUTTER, David M. (1970), "On the Article in English," in Bierwisch, M. and Heidolph (eds.), Recent Developments in Linguistics. The Hague: Mouton & Co.
 POSTAL, P.M. (1966), "On So-called 'Pronouns' in English," in Reibel, D. and S. Schane (eds.), (1969). Modern Studies in English. Englewood Cliffs, N.J.: Prentice-Hall, Inc.
 SOEMARMO, M. (1970), Subject-Predicate, Topic-Comment, and Focus-Presupposition in Bahasa Indonesia and Javanese. Unpublished Ph. D. Dissertation, UCLA.
 SOEMARMO, M. (1971), "Anaphora and Pronominalization in Bahasa Indonesia and Javanese," a paper read at LSA Summer Meeting in Buffalo, New York.
 SOEMARMO, M. (1972), "A Place of Honorifics in Grammar and Its Pedagogical Implications," a paper read at ACTFL Winter Meeting in Chicago, Illinois.
 SOEMARMO, M. (in preparation), "A Semantic Analysis of Honorifics,"
 SØRENSEN, H. (1959), Word Classes in English. Copenhagen.
 STOCKWELL, R., SCHACHTER, P., and PARTEE, B.H. (1973), The Major Syntactic Structures of English. New York: Holt, Rinehart and Winston, Inc.
 VENDLER, Z. (1968), Adjectives and Nominalizations. Papers on Formal Linguistics, No. 5. The Hague: Mouton & Co.
 WALL, R. (1972), Introduction to Mathematical Linguistics. New Jersey: Prentice-Hall, Inc.