MADURESE REDUPLICATION REVISITED*

ALAN M. STEVENS

QUEENS COLLEGE, CUNY

Madurese is an Austronesian language spoken in the eastern part of Java and the surrounding smaller islands, in the Republic of Indonesia. The earliest work that I am aware of was by A. Vreede (1874-1876 and 1882-90) and by Elsevier-Stokmans and Marinissen (1880). The most serious work on Madurese written during the Dutch period--a grammar in two volumes (1897): an introduction and a study of Madurese phonology and a study of word formation and syntax--was by H. N. Kiliaan. Kiliaan also wrote an excellent dictionary, published in 1904. Another dictionary, much less useful than Kiliaan's, was written by A. Penninga and H. Hendriks, and published in 1913. Little of value was published about Madurese from the 1920s to the 1950s. Most of the books of this period were practical lessons for Dutch planters and administrators trying to learn the language. Examples are: Sos-rodanoekoesoemo, (1921); Elsevier-Stokmans and J. C. P. Marinissen (1930); Penninga and Hendriks (1937, 2nd ed. 1942); Penninga and Hendriks (1937), and Wirjowidjojo (1939). The only work of scientific interest from this period is an article by Berg (1941), which contained a section on Madurese sounds and spelling. Wirjoasmoro (1950) was the only work on the language written in Madurese itself.

The next phase of Madurese studies began in the early 1960s. In his bibliographical study of the languages of Java and Madura, Uhlenbeck (1964:176) summarized the situation up to that point by saying: "After Kiliaan no linguists have done any extensive work on Madurese." My own dissertation covering Madurese phonology and morphology (Stevens 1968) was completed in 1964 but not published until four years later. Although Madurese had been mentioned in Wilbur's dissertation on reduplication phenomena (1973:18, 40-1), little interest was paid to the language between the early 1960s and the early

1980s, when it suddenly became an important source of examples in discussions of reduplication. The study of reduplication as part of a more general theory of phonology first appeared in an important article by Marantz (1982) on the phonology of reduplication, where Madurese was mentioned as exhibiting a unique form of reduplication. Since then, examples from Madurese have frequently appeared in the phonological literature in reference to two issues. The first issue is the phonetics and phonology of the unusual kind of vowel harmony found in this language; some work on this topic can be found in Anderson (1991), Stevens (1985), Trigo (1987), Trigo (1989), Cohn (1991), and most recently Cohn (1993). The second topic is reduplication; some work on this topic can be found in Marantz (1982), Stevens (1985), McCarthy & Prince (1986), Kiparsky (1987), and Weeda (1987). It is the topic of reduplication that is the subject of this paper. This topic was also treated descriptively by Pratista (1984) and by Moehnilabib (1979).

Before examining the Madurese system of reduplication, it will be necessary to look at more general aspects of Madurese phonology. The Madurese system of consonants is richer than that of the closely related languages--Javanese, Sundanese, Balinese and Indonesian/Malay. These other languages have two series of stops; Madurese has three: voiceless unaspirated, voiceless aspirated and voiced. The origin of this three-way distinction is controversial. For some proposals see Stevens (1966).

Figure (1) is a chart of the Madurese consonant system. The symbols used here are slightly different from those used in my dissertation (Stevens (1968) and from those used by other writers on Madurese, for example, those used by Weeda (1987).

The meaning of the abbreviations in this chart are: vls = voiceless; unasp = unaspirated; asp = aspirated.

(1)

bilabial	dental	alveolar	palatal	velar	glottal	features
p	t	ṭ	c	k		vls unasp
pʰ	tʰ	ṭʰ	cʰ	kʰ		vls asp
b	d	ḍ	j	g		voiced
m	n		ñ	ŋ		nasal
	s					fricative
	r l					liquids
w[1]			y		ʔ h[2]	glides

This is the set of native consonants. Other consonants have been introduced in loan words. Note that in native words /y/ is the only glide at the underlying level; even so, it is restricted to morpheme-final position, as in *laŋŋoy* 'swim'. When not in this position it is the result of some phonological rule in the language or it is clearly a borrowing, such as in *raʔyat* 'the people'. The phonetic glides /y, w/, however, all occur at the phonetic level as the result of a rule of glide insertion, and this rule plays an important part in the reduplication process to be described below. All consonants but glottal stop can also occur geminated.

Madurese has only four underlying vowels--a front unrounded vowel which ranges in pronunciation from [i] to [ɛ]; a back rounded vowel which ranges in pronunciation from [u] to [ɔ]; a lower back unrounded vowel which ranges in pronunciation from [ɤ] to [a]; and a higher back unrounded vowel which ranges in pronunciation from [ɨ] to [ə]. Each vowel has two main pronunciations (I ignore other minor variants)--one that is higher and tense and one that is lower and lax. The surface form, i.e., the actual pronunciation, is determined by the nature of the preceding consonant in a way that I will explain below. I take the lower or lax set to be the basic pronunciation, that is, the underlying pronunciation, since the lower or lax pronunciations are those which occur in word-initial position and so are not affected by the nature of the preceding

sound. In certain environments these lower or lax vowels are raised and tensed by a rule of vowel tensing or raising, which I will call vowel tensing/raising, abbreviated VTR, since both tensing and raising are involved. The phonetic nature of this process has recently been examined by Trigo (1989) and by Cohn (1991) and more recently by Cohn (1993). Since the tensing or raising process is not the focus of this paper, I will not attempt to go beyond the description I have given in previous work (Stevens 1980 and 1985).

In chart (2) I show the variation in vowel pronunciations:

(2)

underlying	lax/lower	tense/higher
e	ɛ	i
ə	ə	ɨ
o	ɔ	u
a	a	ʏ

VTR takes place after voiced and aspirated consonants and is iterative from left to right, within a morpheme or across a morpheme boundary, through any number of nonnasal sonorants, i.e., liquids and glides, or zero, and through the fricative /s/ if and only if it is at a morpheme boundary (for details of the latter process see Stevens (1980)). For a different view, see Cohn (1993). Everywhere else, the vowels remain lax and lower. Examples of these environments are given in (3) through (7) below (examples are taken from Stevens 1985).

In the examples given in (3) the conditions for VTR are not present; all vowels are lax.

(3)

	underlying	derived by VTR	gloss
a.	esse	ɛssɛ	contents
b.	əla	əlla[3]	already
c.	oreɳ	ɔrɛɳ	person
d.	ale?	alɛ?	younger sibling