Writing an Endangered Language

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This paper reports on Mavea, an Oceanic language spoken in Vanuatu. The state of endangerment of Mavea is first evaluated using UNESCO's framework for assessing language vitality. The framework's nine criteria are applied to Mavea, and the results demonstrate that the language is unquestionably endangered. If this language shift is to be reversed, one of the first steps in doing so is to document the language. Materials in and on the language have the potential to restore the language's prestige, or to restore its usage through vernacular literacy. In the case of Mavea, many community members became eager to see printed versions of the materials I had collected during the documentation process, but the language had no writing system. Thus, this paper additionally describes the Mavea community's efforts to establish orthographic conventions for their language and their desire to disseminate the resultant written materials throughout the community. This grassroots interest in vernacular literacy is argued to be a beneficial step towards reversing negative language attitudes.

1. INTRODUCTION. This paper reports on Mavea, an undocumented and endangered Oceanic language spoken on the eponymous island of Mavea, located off the eastern coast of Espiritu Santo, northern Vanuatu (see maps below).[1] The data presented in this paper originate from ten months of fieldwork on the Mavea Island, between 2005 and 2007.

Section 2 assesses the state of endangerment of the language, using the framework developed by Brenzinger et al. (2003). There are approximately 34 Mavea speakers on the island, out of a total estimated population of 210. While a few residents are literate in two of the country's three official languages (English, French, and Bislama), their literacy does not extend to Mavea, since it has never been written. However, following my fieldwork, many community members became eager to see printed versions of the stories I had recorded, as well as the dictionary I had compiled. Section 3 thus describes the orthographic principles employed in these materials, along with a brief overview of the phonology of the language. Finally, section 4 addresses Mühlhäusler's (1990:195) claim that "the role of traditional oratory and other forms of oral expressions is changed once and for all by the introduction of literacy, and once written down this oral heritage may provide museum exhibits and objects of scholarly study rather than a living tradition."

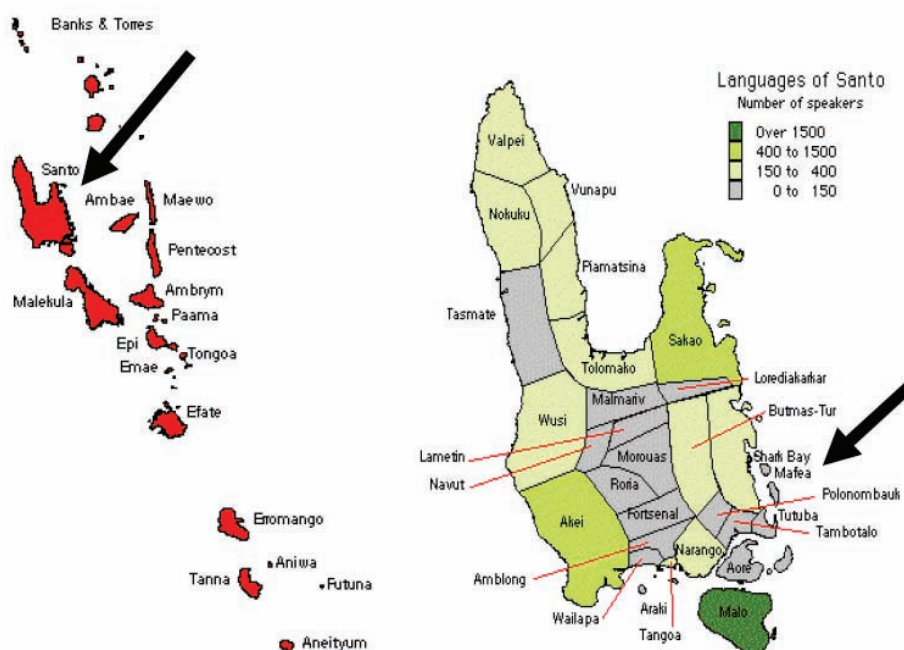Document URI: http://hdl.handle.net/10125/1804

FIGURE 1: Maps of Vanuatu (left), Espiritu Santo and Mavea (right).[2]

2. MAVEA, AN ENDANGERED LANGUAGE. There is an abundant literature on endangered languages (see Tsunoda 2006), and numerous models and frameworks to gauge language vitality (e.g., Brenzinger et al. 2003, Fishman 1991, Sasse 1992, etc). There is also no dearth of metaphor in the literature to describe the state of endangerment of a language (see Tsunoda 2005:10–13), with fine-grained distinctions that allow a language to be described as definitely, critically, or severely endangered. In this section, I apply the framework developed by Brenzinger et al. (2003) to assess the vitality of Mavea.

Brenzinger et al. 2003 isolates nine factors critical for assessing the state of endangerment of a language. These factors can be summarized as follows:

> **F1**: Intergenerational language transmission
> **F2**: Absolute number of speakers
> **F3**: Proportion of speakers within the total population
> **F4**: Trends in existing language domains
> **F5**: Response to new domains and media
> **F6**: Materials for language education and literacy

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[2] The maps were produced in MapInfo by Nick Thieberger, based on Wurm and Hattori (1981). They are available at: <http://www.linguistics.unimelb.edu.au/thieberger/vanlangs/SANTO.HTM>. Last accessed on March 11, 2008.

F7: Governmental language policies
F8: Community members' attitudes towards their own language
F9: Amount and quality of documentation

Except for F2, all factors are assessed on a scale from 0 to 5, where 5 indicates that the language is safe, used on a regular basis, supported by language policies, etc. F1 is based on Fishman 1991. F4 deals with who speaks the language, when, with whom, and about what topics. F5 concerns the extent to which the language copes with modernity. Other factors are self-explanatory. I first present data concerning the language community per se (F2 and F3), before assessing how the language fares in various settings (F1, F4, F5 and F8). Finally, I discuss the amount of written material existing in Mavea and institutional support for the language (F6, F7 and F9).

2.1 ABSOLUTE NUMBER OF SPEAKERS (F2) AND PROPORTION OF SPEAKERS WITHIN THE TOTAL POPULATION (F3). Mavea has a land surface of about 4.7 km². The population is split into twelve settlements of extended families. The most recent national census was undertaken in 1999. It reports (2000:56–58) on a total population of 172 on Mavea—72 women and 100 men. Their distribution by age group is detailed in Table 1 below.
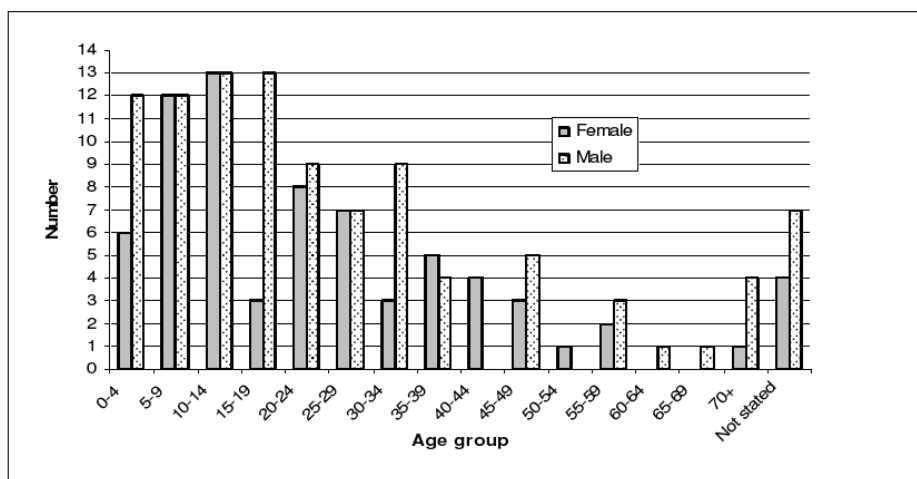
TABLE 1: Mavea population by age. (Data from the 1999 Vanuatu National Census)

The census of 1967 reports 50 Mavea residents. In 1979 there were 98 people on Mavea, and 124 in 1989. Based on the last four censuses, we see a stable growth in the island community. In order to estimate the number of Mavea speakers in 2007, I interviewed three residents and asked them to list all the residents on the island and to say who among them spoke the language.

The current total population amounts to approximately 210 residents. This estimate does not include primary and secondary schools teachers and their families (about 12 people); students at a private Seventh Day Adventist (SDA) secondary school (about 50 students coming from all around Vanuatu); Mavea speakers who live in Luganville (the capital of the neighboring island Espiritu Santo) and who commute to Mavea more or less regularly (about 10 people); and those who left the island permanently (at least 20 people). The total population can be categorized in terms of their language skills and age groups, as shown in Table 2.

	Gen1	Gen2	Gen3	Gen4	**Total**
FS	6 (+3)	13 (+1)	15 (+4)	-	**34 (+8)**
NF	-	5	11 (+1)	5	**22**
NS	5	10	17	114	**146**
Total	**14**	**29**	**48**	**119**	**210**

TABLE 2: Total population by age group and proficiency level[3]

Abbreviations used in Table 2 are defined as follows:

- Proficiency
FS—Fluent Mavea speakers
NF—Nonfluent speakers with passive understanding of the language
NS—Nonspeakers with little or no passive understanding

- Age groups
Generation 1 (Gen1)—65 to 80 years old
Generation 2 (Gen2)—45 to 65 years old
Generation 3 (Gen3)—20 to 45 years old
Generation 4 (Gen4)—20 years old and under

The majority of Mavea residents belong to the third and fourth generations. I estimate that there are approximately 119 children and young adults (Gen4) and 91 adults (Gen1 to Gen3). It is difficult to correlate age with proficiency. Roughly speaking, individuals born around or after the country's independence (1980), and who now belong to Gen3 and Gen4, tend to be less fluent than those born before Independence.

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[3] The number in parenthesis represents women who learned Mavea as a second language. I would like to emphasize that the distribution reported in this table is an approximation based on information from three Mavea residents

The three residents I interviewed varied in their estimates of the number of fluent speakers. The lowest was 24 speakers; the highest was 40. Based on my experience in the community, I believe that the estimate from the third resident is most accurate: 34 speakers. These fluent speakers (FS) belong to Gen1 to Gen3. Nonspeakers (NS) of Mavea (that is, monolingual Bislama speakers) belong primarily to Gen4. The NS found in Gen1 and Gen2 are spouses from other islands who did not learn Mavea as a second language. NS found in Gen3 are either such spouses or children of Mavea-speaking parents, while all NS in Gen4 were born and raised on Mavea. Note that everyone old enough to speak Mavea is minimally bilingual and typically speaks Bislama fluently. There are no monolingual Mavea speakers.

Note that there is also a small Mavea speaking community in Deproma, a village on mainland Santo. The 1999 National Census reports that there are 40 males and 37 females in Deproma. I roughly estimate that, in 2007, the Deproma community had approximately 100 residents, with a maximum of 10 (middle-aged and aging) fluent and nonfluent Mavea speakers. Deproma residents are not included in Table 2.

2.2 INTERGENERATIONAL LANGUAGE TRANSMISSION (F1). On Fishman's (1991) "Graded Intergenerational Disruption Scale," Mavea straddles stages 6 and 7. The language is used mostly by the parental generations (Gen2 and Gen3) and up. Older speakers are integrated in the community, and there is some inter-generational use of the language, as seen in Table 3. The youngest Mavea speakers are of child-bearing age (Gen3), but they do not usually use Mavea with their children. As a result, Mavea is not now the dominant language in most families, and it is no longer being learned as a first language. Hence, the language is moribund.

		Addressee			
		Gen1	Gen2	Gen3	Gen4
Speaker	Gen1	M	M/B	M/B	M/B
	Gen2	M/B	M/B	M/B	M/B
	Gen3	M/B	M/B	B	B
	Gen4	B	B	B	B

TABLE 3: Intergenerational communication in M(avea) and B(islama).

Communication in Mavea occurs primarily among older speakers (Gen1) of the same generation. Speakers in Gen1 and Gen2 tend to speak Mavea to all those they interact with. However, they modulate their discourse and use Bislama with younger generations (Gen3

and Gen4), who have little or no passive understanding of the language. Speakers from Gen3 use Mavea or Bislama with older generations, but Bislama is preferred. They speak Bislama exclusively when they talk to their peers in the same age group or to a younger age group. I have not heard anyone in Gen4 speaking Mavea.

2.3 TRENDS IN EXISTING LANGUAGE DOMAINS (F4). The domains of use of Mavea are "dwindling" (Brenzinger et al. 2003:10). For example, communication in Mavea is rather rare. It occurs mainly at home between husband and wife, parents and children (but not in all households), and during some private conversations outside of the home area (between peers of the older age groups). In all other domains (such as church and church-related gatherings; *Kastom* ceremonies such as weddings or funerals; *Kastom* law dealing with resolution of disputes; recreational activities; education; interactions with the government; and business transactions), only Bislama is used.[4]

2.4 RESPONSE TO NEW DOMAINS AND MEDIA (F5). The language is inactive. Given that Mavea is restricted to a single domain (private conversation), it comes as no surprise that it is not used in new domains. Mavea words referring to nonindigenous entities include *polo* 'bomb, bullet', *soro* 'a firearm/to shoot a firearm', *nuenue* 'picture', *varu* 'iron, metal', and *tamauta* 'white man'. But today, most words referring to technological innovations, such as *trak* 'truck, vehicle' and *bot* 'boat', are borrowed from Bislama, along with words referring to institutions, such as *kavman* 'government', *skul* 'school' pronounced [sukul], and *jos* [sios] 'church'.

2.5 COMMUNITY MEMBERS' ATTITUDES TOWARDS THEIR OWN LANGUAGE (F8). Brenzinger et al. (2003:11) note that if "communities do not meet the challenges of modernity with their language, it becomes increasingly irrelevant and stigmatized." This hypothesis holds true for Mavea.

The community was Christianized in the 1950s by SDA and Church of Christ missionaries coming from the neighboring island of Malakula. According to one speaker, when the missionaries came, few Mavea residents spoke Bislama. Women tended to be monolingual Mavea speakers (or bilingual in Mavea and another indigenous language, if they married within the community). Only men who worked on plantations outside of the island knew Bislama. SDA missionaries banned most traditional activities (such as raising and exchanging pigs, performing traditional dances and songs, etc). Given the size of the community, translating religious materials in Mavea was never an option the church envisaged. Church services were and still are performed in Bislama.

Exogamous marriages have also contributed to the loss of Mavea, albeit only recently. Exogamous marriages have been practiced for as long as people can remember (at least 100 years). At the beginning of the twentieth century, there were apparently only two large families on Mavea. To avoid intermarriage on the island and to nurture relationships with neighboring groups, men chose their wives outside Mavea, and, reciprocally, Mavea women married outside the island. It used to be the case that women came from nearby islands: Ambae, Malo, Tutuba, or South Santo, and so spoke languages closely related to Mavea.

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[4] *Kastom* is the Bislama word for 'custom' or 'traditional'.

They assimilated into what was then a robust and dynamic Mavea-speaking community, learned the language, and raised their children in Mavea. Recent trends (starting about fifty years ago, a period which coincides with Christianization) reveal that some spouses come from islands that are farther away from Mavea (like the Banks, or Pentecost), and thus speak languages that are not closely related. Given that the use of Mavea has also declined, newly-wedded women converse in Bislama only, and Bislama is now often the only language spoken on a regular basis in the home.

Economic trends have also accelerated the decline of Mavea. Today, an upper-middle class is emerging on Vanuatu, composed of indigenous land owners who lease large portions of land for millions of *vatu*[5] to foreign real-estate companies.[6] Because Bislama is needed in all business transactions, it has become associated with upward social mobility, leaving Mavea as the language of a stigmatized traditional past.

These socio-economic factors affect speakers' attitudes toward their language, a crucial factor for its survival (Bradley 2002). One person made the comment that her children speak "rubbish Mavea"; they mix it with Bislama, and they cannot narrate a story. Another voiced her concern about the loss of Mavea, but she speaks Bislama to her grandchildren because, she said, everyone else does.

During my third field trip, however, I noticed in my host family that: (1) my host mother now makes an effort to speak Mavea to one (out of four) of her grandchildren, although not exclusively, and (2) the wife of one host brother is using some Mavea at home. She has been in the family for six years and has developed a fairly good understanding of the language. She sometimes makes an effort to speak Mavea with her husband and in-laws; (3) another host brother (now living with his family on Tanna, an island in the south of Vanuatu, far from his Mavea homeland) speaks Mavea with his wife at home.[7] While living on Mavea or on the neighboring island Aore, this couple did not use Mavea in their home. In Tanna, however, they do so quite regularly. Whether favorable attitudes towards the vernacular were bolstered by my presence on Mavea, or by the fact that the vernacular languages in the southwest of Tanna are spoken routinely by all age groups, and whether these trends will continue, remain to be seen.

2.6 GOVERNMENTAL AND INSTITUTIONAL LANGUAGE POLICIES, INCLUDING OFFICIAL STATUS AND USE (F7). If there is little community support to "save" the language, there does seem to be some governmental support in the form of a somewhat explicit language policy. The constitution of the Republic of Vanuatu states that: "The Republic of Vanuatu shall protect the different local languages which are part of the national heritage, and may declare one of them as a national language." (Constitution of the Republic of Vanuatu, Chapter 1, article 3:2). With an estimated total population of 211,971 in 2007 (CIA census), and about 110 languages (80 being actively spoken), Vanuatu is "the most complex nation in the world in terms of the number of vernaculars per head of population"

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[5] Vanuatu unit of currency.

[6] 100 *vatu* = $1. Usually a lease is signed for seventy-five years.

[7] She was born and raised on Mavea, in a family from Malakula; she has a good passive understanding of the language, and is able to hold a basic conversation.

(Crowley 2005:32). Establishing vernacular education for so many languages is a daunting task that the government seems willing to pursue, at least at the level of policy. I quote below some passages of the Education Master Plan (1999) relevant to vernacular literacy (original emphasis).

> **a.** We intend to use our education system to help us value and preserve our **linguistic and cultural heritage, identity and diversity**. (page 2)
>
> **b.** We intend to use our education system to develop writing systems, over time, and as resources are available, for as many as possible of our **indigenous vernacular languages**. As materials become available, we intend to use them in the early years of basic education. (page 4)
>
> **c.** This measure will enable the smaller children (ages 5–7) to continue to live in their homes and be taught by a teacher living in the village, known to everyone, and speaking the vernacular language. Teachers will be mature individuals who are respected in the community (e.g., retired teachers, community leaders) and who have completed at least ten years of education. (…) The major constraint on its [*vernacular education*] introduction will be the ability to produce basic learning materials in vernacular languages for a preparatory year and for Grades 1 and 2. Obviously, given that Vanuatu has more than 100 vernacular languages, at least half of them not yet written, this will take several years. Some written materials exist in up to 50 of the country's vernacular languages. For the development of appropriate materials in vernacular languages for the preparatory year and for Grades 1 and 2, we intend to involve technical assistance from linguistic experts and from nongovernmental agencies present in Vanuatu for some years, which have developed pragmatic methodologies for producing learning materials quickly and well, and which are eager to help. (page 7)
>
> **d.** In addition, teachers would draw on community knowledge (parents, chiefs, village elders) for assistance in developing specific content and in classroom teaching. Thus children will be well-grounded in their local language, culture, history, and heritage before they proceed on to knowledge of foreign languages and the wider world. (page 10)

Following the 1999 Education Master Plan, a total of sixteen pilot projects were established in schools on Tanna, Pentecost, Santo, and Malakula islands. According to Trisha Shipman (p.c), few of these programs were successful, due in part to the lack of support from the communities, the lack of teacher training programs, or other problems related to funding.[8] Indeed, the Education Master Plan itself had laid out some potential problems.

> **e.** Most concerns about the desirability of the proposal have been expressed by expatriates, with the main concerns being (i) fear that the proposal would be impossible to implement and (ii) fear that its implementation would weaken

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[8] Trisha Shipman is a former Peace Corp volunteer who worked with the Vanuatu Ministry of Education for three years, from 2002 to 2005. She is now a graduate student at the University of Hawai'i at Mānoa.

further the quality of teaching and acquisition of the two international languages. (page 18)

> **f.** Even though the Government will now be involved in community-based schools, by paying the teachers and by providing certain instructional materials, the cost of providing Grades 1 and 2 *and* the preparatory year will be cheaper than the present system. This is because the Government currently pays teachers in Grades 1 and 2 the full salary of a primary school teacher, but teachers in community schools will be paid one quarter of what a primary-school teacher earns. (page 70)

Political pressure to ensure the permanence of French and English as the languages of education (as stated in the Constitution, Chapter 1, article 3:1) has impeded the development of vernacular literacy. Teaching a vernacular language is not made financially attractive. Above all, the plan is not based on any sound language planning activities. According to Trisha Shipman (p.c), and Crowley (2000a:80) there was little teacher training in pilot schools, there was little to no pedagogical material for those languages, and no monitoring technique were in place to assess the weaknesses and strengths of the projects. (See Crowley 2000a:81–82 for an assessment of the Plan.) Note also that vernacular literacy would only be introduced in the first three years of schooling (until age 7).

> **g.** We intend to introduce vernacular-language education in the early years of the basic-education cycle. (…) Children will hear either English or French in the classroom from the beginning, but will be taught in a vernacular language chosen by the school committee, in cooperation with the parents. (page 6)

The main goal of this language policy is apparently not to preserve Vanuatu's linguistic diversity, but to promote monolingualism in French or English, the languages of education. It is regrettable that Mühlhäusler's (1990:195) statement that "vernacular literacy in the Pacific is transitional—that is, it appears inevitably to lead to literacy in a nontraditional, typically metropolitan language" seem to hold true.

Last, and crucial to the matter of language death, small-scale languages (with fewer than 100 speakers) are excluded (although not explicitly) from the vernacular literacy program. As the following excerpt suggests, education in the vernacular would only target languages with more than 100 speakers.

> **h.** Thus, if the Government offers vernacular-language education in languages with one hundred speakers or more, education could cover ninety-five languages and over ninety percent of the population (p. 81).

So, it appears that, even if the constitution provides equal support to all vernacular languages, some languages are "more equal than others."

2.7 AMOUNT AND QUALITY OF DOCUMENTATION (F9) AND MATERIALS FOR LANGUAGE EDUCATION AND LITERACY (F6). There is, to date, no material published in

and/or on Mavea, except for a short word list found in Tryon 1976. Given the lack of an explicit language policy for small-scale languages, and the fact that the Mavea community seems unconcerned about the future of its language, why should any material be published in Mavea? This issue is addressed in the last section of this paper.

2.8 SUMMARY. The following table summarizes the previous discussion.

Factors	Rating	Comments
F1: Transmission	3	The language is no longer being learned as a mother tongue by children in the home.
F2: Number of Speakers	34	These speakers have varying levels of fluency.
F3: Ratio of speakers	2	About 16% of the total population speaks the language (34 out of 210).
F4: Language domains	2	The domains are limited/dwindling.
F5: New domains	0	The language is inactive, not used in any new domains.
F6: Education	0	The language is not used in school.
F7: Policies	5?	"The Republic of Vanuatu shall protect the different local languages […] offers vernacular-language education in languages with 100 speakers or more."
F8: Attitude	1	Few speakers are concerned with language loss.
F9: Documentation	0	No material exists to date, except for those in circulation on the island.

TABLE 4: Assessing the language vitality of Mavea

As previously noted, intergenerational transmission was severed by external factors (socio-economic and/or socio-cultural forces), and internal factors (lack of positive attitudes toward the language and exogamous marriages). The results point to the conclusion that Mavea is moribund and highly endangered.

3. THE MAVEA ORTHOGRAPHY. Crowley (2000a:69–71) notes that out of the eighty actively spoken languages in Vanuatu, there are thirty-four languages with no orthography. He also states that people often write in these languages: "when people do this, they typically transfer spelling conventions on an *ad hoc* basis from more widely known writing systems, such as those of other vernaculars, Bislama, or metropolitan languages." Mühlhäusler (1990:199, 203) disapproves of vernacular spelling conventions that are modeled on the spelling of metropolitan languages because, he contends, they help accelerate the transition towards those languages (see Easton 2003:7 for a similar argument). I believe that modeling vernacular spellings on the languages of education is an advantage. By building on literacy skills that already exist in the community, we may be able to help reverse language attrition and promote vernacular literacy. The following section details some principles underlying the design of the Mavea orthography.

3.1 ORTHOGRAPHIC DESIGN. Hooley (1974) lists the design factors and principles that he used for developing an orthography for Central Buang, a language spoken in Papua New Guinea. McGregor (1986), Rehg (2004), Seifart (2006), Simons (1994), and Stubbs (1980) give more general principles to be considered when a new orthography is to be chosen. The design features these authors mention can be subgrouped into four main categories.

> **Technological usability**: Are the symbols/graphemes readily available on a standard local keyboard/typewriter?
> **Social and cultural acceptability**: Does the language community and/or the ministry of education approve the orthography?
> **Psycholinguistic acceptability**: Should the orthography represent all phonemes? Only those phonemes with a high functional load? Some/no phonetic contrasts? Should the spelling show some/all/no morphophonemic variations?
> **Function of the orthography**: Will the orthography be used in schools? Does the orthography facilitate reading and/or writing? Should the orthography privilege first or second language learners?

All authors agree that these principles may conflict (see in particular Hooley 1974:85, McGregor 1986:64, and Stubbs 1980:73). But according to Simons (1994:17), the social and cultural principles override all others. Before examining how these principles have been addressed, I briefly describe Mavea phonology.

3.2 FROM PHONEMES TO GRAPHEMES. Charts of Mavea phonemes are given in Table 5 for consonants and Table 6 for vowels. Graphemic representations of the Mavea phonemes are provided in Table 7. Note that square brackets [ ] mark phonetic symbols or pronunciation, angled brackets < > mark spelling, and slashes / / mark phonemes or morphemes.

	Linguo-labial	Bilabial	Labio-dental	Alveolar	Retroflex	Palatal	Velar
Stop	p̪	p		t	ɖ		k
Fricative	v̪		v	s			
Trill				r			
Nasal	m̪	m		n			ŋ
Glide						j	w
Lateral				l			

TABLE 5: Mavea consonants

i			u
e			o
		a	

TABLE 6: Mavea vowels

Phoneme	a	e	i	o	u	m m̪	p p̪	v v̪	t	ɖ	s	k	r	n	l	ŋ	j	w
Grapheme	a	e	i	o	u	m	p	v	t	d	s	k	r	n	l	ng	i	w word initial, u elsewhere

TABLE 7: Phoneme and grapheme correspondences

The above orthography satisfies the principle of technological usability. Since it does not include any diacritics or special symbols, it can be written using any basic keyboard.

Reaching a consensus for the Mavea orthography was not difficult, since decisions regarding the alphabet and spelling conventions were made by the most influential group in the community (one of the chiefly lines). These decisions have been accepted by the speakers I interacted with.

3.3 SPELLING CONVENTIONS. The function an orthography will serve is the second most important principle to take into account in the design of an orthography (Sebba 2007:23–5, Seifart 2006:282–3). For Mavea, members of the community assumed that the main social activity the orthography would serve would be for reading. As a result, we designed orthographic conventions that are, for the most part, shallow. A shallow orthographic system strives to present a one-to-one correspondence between a phoneme and a grapheme (Bird 1999:103, Sebba 2004:18–9, Seifart 2006:279). Such a system privileges reading, particularly for the beginning reader and the nonfluent speaker. According to Venezky (2004:139), a shallow orthography also facilitates spelling, especially for languages (like Mavea) with no dialectal variation (see also Sebba 2007:19, based on experiments by Castles and Coltheart 2004). Examples of these shallow orthographic conventions follow.

Following the principle of overall least effort (Simons 1994:26), and to facilitate transfer towards the vernacular, the digraph <ng> was chosen over <g> to represent /ŋ/.[9] This digraph conforms to the orthographies of English and of Bislama (as standardized in Crowley 2003). Using <g> might have caused some confusion with the English phoneme /g/. I agree with Hooley (1980:85) that "familiar symbols should not be used in ways which conflict with patterns already established from knowledge of other languages." As for alphabetical order, it follows the English/Bislama model, except that words beginning with <ng> (which do not occur in Bislama nor in English) are alphabetized after <n>.

Mavea also has some geminate consonants, with low functional load.

- l-ll   lua   'vomit'   llua   'roll s.t'
          malao   'bird sp., Megapodius'   mallao   'Turtle island'

- r-rr   ru   'go in'   rru   'insist'
          ro   'after, then'   rro   'fast'

- m-mm   lama   'light'   amma   'before'

- n-nn   na   'but'   nna   '3SG'
          no-   'classifier'   nno   '2SG'

In rapid speech, gemination is often almost imperceptible. A high-frequency word such as *nna* (3SG) is often pronounced [na]. It was decided, however, that geminates would be written by doubling the consonant involved.

One of the most interesting features of the Mavea phonemic inventory is the contrast between the linguo-labials [p̪, v̪, m̪] and other labials. There were only three speakers still using linguo-labials in 2007—two speakers on Mavea and one speaker in Deproma (whose

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[9] Writing <g> for /ŋ/ is common for some orthographies in Vanuatu and elsewhere in the Pacific.

first language is Tutuba). In the speech of all other Mavea speakers, linguo-labials have undergone what Clark 1985 and Lynch 2005 call "a reversed shift"; they are now pronounced as the labials [p, v, m].[10] The community members who were involved in the design of the orthography rejected marking the linguo-labials in any special way–not because this would have meant adding a diacritic, making them cumbersome to write on a regular keyboard, but because they were not interested in adding what they considered to be a historical dimension to their orthography. Also, younger speakers find the way linguo-labials are pronounced (with the tongue slightly protruding between the lips) laughable, to say the least.

It was also decided that the verbal complex with its multiple verbal prefixes would be written as a single word, thereby potentially creating long strings of morphemes as in (1).[11]

1. ra-mo-sopo-me-r-lo-ma.   <ramosopomerloma>
   3PL-COND-NEG-IT-DU-IPFV-come
   'If they (two) are not coming anymore.'

Such long forms potentially disadvantage a beginning reader, since they take more time to decode. But, as community members pointed out, long words as in (1) are relatively infrequent. Also, there is no "good" place to segment such forms. Writing each morpheme separately could have lead to singleton letter like <r>, as in (1) above, which the community found unaesthetic.

A shallow orthography graphically represents allomorphy (Seifart 2006:279). Following this principle, some morphemes are written differently, depending on how they are pronounced. For example, the imperfective marker /lo/ is sometimes pronounced /l/ after vowel deletion.

2. Mo-l-va.   Mo-lo-va.
   3SG-IPFV-go   3SG-IPFV-go
   'He is going.'   'He is going.'

There are forms, however, where /o/ never occurs on the surface, possibly because V deletion in these forms is obligatory between homorganic consonants.

3. Mo-l-to.   *Mo-lo-to.
   3SG-IPFV-stay   3SG-IPFV-stay
   "He is staying."

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[10] See Naito 2006 for a similar shift in Tutuba, which is the closest linguistic relative of Mavea (73% shared cognates, based on a lexicostatistical comparison of 221 lexical items (Tryon 1976:133)). In the dictionary I compiled (of about 1700 entries), 550 items were found to contain at least one linguo-labial, starting with the language name itself [mave̪a].

[11] Abbreviations not listed in the Leipzig glossing rule include *IT* (iterative).

The community felt that the allomorphs /lo/ and /l/ should both be written to avoid orthographic forms unattested orally. Thus, the imperfective marker is written <lo> or simply <l>, depending on its pronunciation.

There are however some instances where the orthography "deepens," and spelling favors morphology over pronunciation (following Venezky's (2004:146) constancy principle.) The subject agreement marker /mo-/ (3SG) is a case in point. It is pronounced [mo] before verbs beginning with consonants, and with the vowels [o, i, u].

4. /mo-inu=a/   [mo.i.nu.a]
   3SG-drink=3SG
   "S/he/it drank it."

But with verbs starting with the vowels [e] and [a], the /o/ of /mo-/ assimilates to the verb's initial vowel.

5. /mo-evu/   [meːv(u)]
   3SG-COMPLETE
   "It's finished."

The community found it more desirable to write this subject agreement marker as <mo> at all times, despite the potential confusion for beginning readers, who might be led to pronounce a form such as (5) as [mo.e.vu] if they have not actually heard the word.

The orthography also does not graphically represent allophonic variation. Consider the phoneme /v/. It is pronounced [β], [f], or [v] in free variation. In word-final position, [f] is most common; between vowels, any of the three allophones can be heard (with [β] and [f] used by only a handful of speakers). Word-initially, there is free variation between [f] and [v]. When I asked speakers if <f> and <v> should both be written, they unanimously chose to have a single grapheme <v> represent all three allophones [β,f,v].

The major drawback of a shallow phonemic orthography is that it may create homographs (Grimes and Gordon 1980:93). To avoid homographs, a slightly deeper spelling system was used. Consider the diphthong [aj].

6. [paj]   'shoulder'
   [daj]   'blood'

The fact that [aj] is a phonetic diphthong is shown by the addition of a suffix (as in (7) below). A possessive suffix added to the bare forms breaks the phonetic diphthong into two syllables, and the quality of the second vowel is revealed.

7. [paj]   'shoulder'   [pa.i.ku]   'my shoulder'
   [daj]   'blood'   [da.e.ku]   'my blood'

The word for 'shoulder' is thus written <pai> and 'blood' <dae>. The following two homophones are also distinguished graphically.

8.   [aj]   'kava'
      [aj]   'anaphoric pronoun'

To avoid homographs, the word for 'kava' is spelt <ae>, while the anaphoric pronoun is <ai>. This decision resulted from the fact that the pronoun /ai/ is related in form to the cardinal number and indefinite specific article 'one' [a.i.te], which contains an <i>. Other forms ending in [aj], but to which no suffix can be attached (such as 'flying fox' [karaj]), were written with the digraph <ae> to conform to the spelling of Bislama. Although graphically distinguishing homophones may impede spelling, it helps readers to retrieve the meaning of words more quickly (Venezky 2004:150).

The major problem we faced was with the treatment of "almost silent" letters. In fast speech, the vowels [u,i,o] tend to drop from the end of words containing at least two syllables. Consider the following inalienably possessed nouns.

9.   [sapur/sapuri]   [sapuri-ku]
     'maternal uncle'   uncle-1sg.poss
     'my maternal uncle'

10. [varang/varango]   [varango-ku]
       'finger'   finger-1sg.poss
     'my finger'

Writing the final vowel on the noun is more economical from a learner's perspective: the form /-ku/ (1sg.poss) needs to be learned only once and can then be combined with any inalienable noun. The problem of "almost silent" letters is also relevant to free morphemes, such as [m̱atavono/m̱atavon] 'ax', [tasi/tas] 'sea', or [tol/tolu] 'three', which are frequently heard both with and without the final vowel, as well as [lulu] 'blaze', which is more often heard *with* the final [u]. The issue of whether to write the final vowel was debated and no real compromise was reached. I suggested writing all silent letters, because they may surface in careful speech, and, at least for some forms, when they are suffixed. I am not confident that this convention will resist the pressure of time. Most of the spelling conventions chosen reflect actual pronunciation, and I suspect that forms such as <tol> and <tolu> 'three' will co-occur in writing if the orthography is ever put to use.

4. TO WRITE OR NOT TO WRITE? Introducing literacy in a community with oral traditions is not necessarily a harmless enterprise (Crowley 2000b, Dunn 2000, Grenoble and Whaley 2006:102, Liddicoat 2000:426, Mühlhäusler 1990, Ong 1982). The pros and cons of developing an orthography for previously undocumented languages are summarized in Hinton and Hale (2001:239–241). Some issues surrounding this debate are provided below.

Writing the vernacular may alter or interrupt language transmission as a consequence of the misconception that, once a language is written, it is safe (see also Tsunoda 2005:189). Writing may also create divisions in a society between those who are literate and those who

do not acquire these skills. A speaker may lose ownership of a story once it is written, or become liable for what was written, since a written story is fixed in time in a way that an oral version is not.

On the other hand, due to the misconception that written languages are "superior" to spoken ones, providing a writing system for a language may bring pride to the language community (see also Terrill 2002:214–15, Tsunoda 2005:189). Training speakers as writers may also help to widen the range of uses of the language. New genres can develop, from children's literature to diaries, to more practical uses like writing reports or notes. Creating orthographic conventions for an endangered language may also help safeguard that language. Vernacular education is often seen as a key activity in sustaining languages against the pressure of dominant languages (Brenzinger et al. 2003:12, Crowley 2000a:79, Crowley 2000b:383–384), and although "the existence of linguistic descriptions is neither a necessary nor a sufficient condition for language maintenance" (Mühlhäusler 2000:321), it is an essential condition for language revitalization. Once language shift is near completion, revitalization is possible only if the speakers have access to descriptive and written materials in the language (Sasse 1992), since they may shelter the only surviving language resources (Hinton and Hale 2001:241).

I believe that the community's requests to see its language written override the debate about whether literacy is beneficial or detrimental. Best ethical practices in language documentation demand that the linguist respect the will of the community s/he works with (Dwyer 2006, Rice 2007:4–5, Tomei 1995:174, Tsunoda 2005:216). The materials circulating on Mavea (transcribed stories and a short bilingual Mavea-English dictionary) were distributed in response to requests that originated from within the community. Mavea speakers asked me to share our collaborative work with the rest of the community, in ways and formats that could best serve them: written forms. Compiling an audio book on CD would serve only those community members with access to electricity and technology. Written materials, on the other hand, have the potential to reach a larger audience. Not everyone has electricity on the island, but there is likely to be at least one person in each family who can read.

However, according to Mühlhäusler (1990:190, 199, 203), not only is literacy in the metropolitan languages detrimental to a vernacular language, but "the most general long term effect of literacy in the vernacular has been language decline and death," because, he argues, the goal of vernacular literacy is transitional—to prepare learners to read in a nonlocal language (but see Crowley 2000b, which disagrees). Although I cannot determine that there is a direct relation between literacy in the metropolitan languages and the decline of vernacular languages in Vanuatu in general, it seems that, at least for Mavea, literacy in the metropolitan languages was one of several agents that participated in confining the vernacular to a handful of domains. However, the blame cannot be placed on vernacular literacy in Mavea. Literacy skills were introduced directly in nonindigenous languages. There was no transitional period in which Mavea speakers first learned to read their language in order to learn more rapidly the languages of the church and/or school. Today, given the state of endangerment of Mavea, there is little chance that introducing basal readers in Mavea will cause the situation to deteriorate further.[12] The fact that the Mavea community

[12] But see Liddicoat 2000, which reports on a grassroots Jersey Norman French dictionary that failed to sustain language maintenance and instead hastened language shift.

was eager to see written versions of their work suggests that they recognize the symbolic function of writing, in a way similar to that Terrill (2002:216) notes: "written material have an emblematic function beyond their intrinsic content, serving to bolster the prestige of the indigenous language in the community." By diffusing written materials throughout the community, we may infuse some interest in the language, and at least encourage its being read and heard. This hopefully, can change language attitudes, which in Mavea are the most detrimental factors in determining the fate of the language.

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