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## Orthographic design in Solomon Islands

The social, historical, and linguistic situation of Touo (Baniata)

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This paper discusses the development of an orthography for the Touo language (Solomon Islands). Various orthographies have been proposed for this language in the past, and the paper discusses why they are perceived by the community to have failed. Current opinion about orthography development within the Touo-speaking community is divided along religious, political, and geographical grounds; and the development of a successful orthography must take into account a variety of opinions. The paper examines the social, historical, and linguistic obstacles that have hitherto prevented the development of an accepted Touo orthography, and presents a new proposal which has thus far gained acceptance with community leaders. The fundamental issue is that creating an orthography for a language takes place in a social, political, and historical context; and for an orthography to be acceptable for the speakers of a language, all these factors must be taken into account.

#### 1. Background

The Touo language (known in the literature as "Baniata", see discussion below) is a non-Austronesian language spoken by about 1800 people (Solomon Islands 1999); they are mostly located in the southern regions of Rendova, an island in the Western Province of Solomon Islands (see Figure 1). Most Touo speakers also know one or more Austronesian languages, in particular Ughele (spoken on the northern end of Rendova), Roviana (spoken in nearby western New Georgia) and Marovo (spoken in eastern New Georgia). Most Touo speakers are not literate in Touo, and there is no widely accepted writing system.

Although previous scholars working on the language have introduced various writing systems, none of these has been adopted for community use, for various reasons. Some speakers use ad-hoc writing systems, usually based on either the orthographies of Roviana or Marovo/Ughele; these are well established, dating from missionary activity in the early 20th century. These ad-hoc systems as applied to Touo are recognised by Touo speakers as flawed, and the difficulties of writing Touo have become part of folk linguistic knowledge. In some communities, the lack of an acceptable Touo orthography has developed an ideological charge; but in others, openness to linguistically well-founded proposals decreases the potential for sectarian conflict over preferred systems.

In the main part of this paper we examine the social, historical, and linguistic factors that have been considered in creating a Touo orthography, and we present a new proposal which thus far seems to be satisfactory. It can be said that the aim of creating a successful orthography has been achieved once there is a generally accepted way of writing a language, if and when people choose to write it. Since a primary technical consideration of an orthography is its adequacy as a representation of a phonological system, it is necessary first of all to present a sketch of Touo phonology.

### 2. Touo phonology

The consonant inventory of Touo is shown in Table 1. Since Touo is one of the few Papuan (also called 'non-Austronesian') languages in a region where mostly Austronesian languages are spoken (Dunn et al. 2002), it will be useful to examine the extent to which the Touo consonant system is aberrant. The lack of/p/ is typologically unusual. The opposition of voiceless vs. prenasalised stops is typical for languages of the Solomons; the opposition of voiced and voiceless fricatives (and especially the presence of /z/) is typical of languages of the Western Province. The presence of /y/ and /h/, as well as the absence of /x/, are all typical for the region.

Touo has six vowel positions: /i e a 2 o u/. The /3/ is unusual; none of the nearby languages have such a vowel, most having just /i e a o u/ (reflecting the five vowels of proto-Oceanic, Ross 1988). There are two phonation types: modal voice, which can occur in all positions in a word, and breathy voice, which can occur in word-initial vowels only. Thus there is a further set of six breathy vowels /ieazou/. Many minimal pairs exemplify this vowel contrast, such as avo 'garden' vs. avo 'four'; e'path' vs. e'coconut tree'; and 5 'village' vs. 5 'what'.

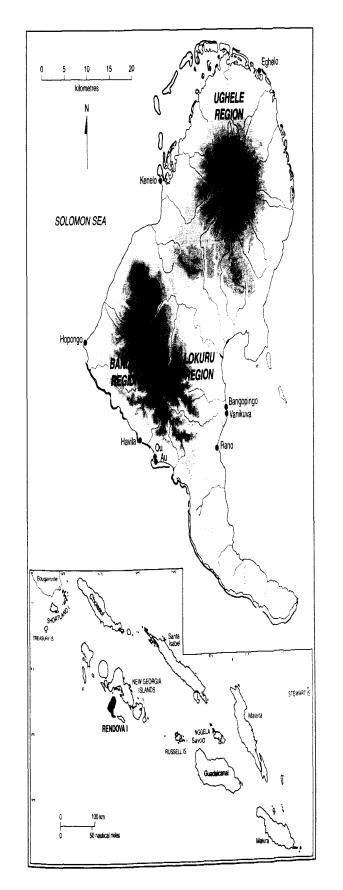


Figure 1. Map of Rendova Island.

Table 1. Consonant inventory

	Labial	Apical	Velar	Glottal
Stops				<u>.</u>
Voiceless Voiced prenasalized Nasals Fricatives	<sup>m</sup> b m	t <sup>n</sup> d n	k <sup>ŋ</sup> g ŋ	
Voiceless Voiced Lateral flap	f v	s z [	Y	h

Syllable structure is (C)V. In careful speech, vowels (whether with modal or breathy phonation) are lengthened in syllables without a consonant onset.

### 3. Sociolinguistic profile

Solomon Islands has about 80 indigenous languages, all but a handful of which belong to the Oceanic branch of the Austronesian family (Tryon & Hackman 1983). Touo, together with a handful of other languages scattered on different islands, is one of the few Papuan languages in the region. It bears little direct evidence of genetic relationship to the other Papuan languages of Solomon Islands (Todd 1975, Dunn et al. 2002).

The Touo language is known in the literature as Baniata, a name which has a long history. This was the name used to refer to this language by Ray 1928, Lanyon-Orgill 1953, Capell 1954, 1962, 1969, Scheffler 1971, 1972, and Todd 1975. However, according to speakers, the name Baniata refers to a particular region of Rendova, and "the Baniata language" to the language of the people resident there. Another region of Rendova, speaking a different dialect of the same language, is Lokuru; this term is likewise used to refer to a region as well as a language variety. But Baniata cannot correctly be used to refer to the language as it is spoken in the Lokuru region; nor can Lokuru correctly be used to refer to the language as it is spoken in the Baniata region. The two varieties have only minor pronunciation differences, and are acknowledged in the communities to belong to a single language.

The name Touo is not mentioned as an alternate language name in any of the above sources, although Scheffler (MS) cites the term as an ethnonym. The name Touo was suggested to us by speakers as an alternative inclusive term for both language varieties. Touo is the ethnonym used by the speakers to refer to themselves and to their language. Capell, Scheffler, and Todd worked largely or exclusively with Baniata people, and this probably accounts for their use of the term Baniata. But Early, who spent roughly equivalent amounts of time with both communities, was the first (in 1981) to note the problem with the language name in his survey of language use in the Western Province, nearly two decades ago. Early nevertheless decided to use the term Baniata, on the explicit grounds that it was known by this name in the literature. We acknowledge that this is an important factor; but we have decided, in the interests of inclusiveness and accuracy, that the name Baniata should be used only for the language variety spoken in the Baniata region, and that the indigenous ethnonym Touo should be preferred to refer to the whole language.

Speakers of the Touo language are multilingual: In addition to Touo, they also tend to know one or more of the neighbouring Austronesian languages. The major factors determining which Austronesian languages are known by individual Touo people are geographical and religious. The main geographical division is between east and west. The east coast villages (the Lokuru region) are in easy range of the Marovo lagoon (on east New Georgia), while the west coast villages (the Baniata region) are closer to the Roviana lagoon (west New Georgia). Each village has one church, which functions as a social and political hub. The major church groups are the Seventh Day Adventist Church (SDA), the United Church (UC), and the Christian Fellowship Church (CFC). The largest Touo-speaking areas extend over a section of the eastern coastline of Rendova, and are divided into two villages, Bangopingo (SDA) in the north and Vanikuva  $(UC)\ in\ the\ south.\ South\ of\ Lokuru\ lies\ another\ smaller\ UC\ village\ called\ Rano.$ On the western coast, the area of Baniata is divided into villages called Ou (SDA) and Au (CFC), as well as the CFC villages of Havila and Hopongo.

Almost all Touo speakers, apart from very young children and some of the older women, also speak Solomon Island Pijin, a dialect of Melanesian Pidgin and the lingua franca of the nation. Most Touo speakers from UC and  $\ensuremath{\mathsf{CFC}}$ backgrounds (both churches are descended from the Methodist Mission) also have some degree of familiarity with Roviana, the language of the nearby lagoon in the southwest part of New Georgia and in the nearest town, Munda. Until the early 1960s Roviana was the language used in Methodist schools in the region; but since the 1960s, English has been used instead of Roviana. Since that time, knowledge of Roviana and literacy in it have dropped off.1

Touo speakers from an SDA background are more likely to be familiar with the Ughele language, since the Ughele-speaking part of the island is mostly

SDA, and many Touo children go to SDA-run schools there. The official medium of instruction in SDA schools is, and has always been, English. People from the eastern side of Rendova are also likely to know the Marovo language, spoken in the southeast part of New Georgia.

Touo is used in some church services, although usually only where church leaders happen to be locals. Church boundaries do not coincide with language boundaries, so members of the church hierarchy are frequently from other islands. There are no forms of electronic media in Touo; the national radio station, operated by the Solomon Islands Broadcasting Commission, broadcasts in Pijin and English. The one daily newspaper of the nation, the Solomon Star, is rarely seen in villages, and is in English. There is no television. English is the official language of schools, although Pijin is used widely. Many people have at least a passive familiarity with written English, but by no means all can speak it (Lotherington 1996).

Touo is occasionally written, using a non-phonemic script based on whichever Oceanic language (or English) is most familiar to the writer. A couple of hymns have been translated from English, and a few notices and canoe names (e.g. Ni hofea [ni hofea] 'Come well') use the Touo language. The most sustained examples of writing are found in the private notebooks kept by many old men, in which they list genealogies, details of tribes and land, and the texts of prayers and songs. Because of the absence of printing facilities, many Solomon Islanders have hand-copied hymn-books, which tend to be multilingual.

# 4. Obstacles to an orthography

As linguists who had come to carry out descriptive work on the Touo language, we were asked by community leaders, in exchange, first to develop an orthography for the language, and second to provide a dictionary and children's storybook. There are two main obstacles in the way of a satisfactory orthography for the Touo language; one is acknowledged by Touo speakers, and the other is not. The overt reason given by Touo speakers for the lack of a suitable writing system in their own language is the difficult nature of the sounds of the language is the difficult nature of the sounds of the language. guage. However, in comparative linguistic terms, Touo does not have a particularly control of the second se larly complex phonology; for the most part it can be easily described with reference to classical phonemics, and thus it lends itself to the familiar alphabetic writing systems used by other languages in the South Pacific and elsewhere. However, perceived problems in Touo arise from the number of vowel sounds

which are unlike anything else in the region, and for which there is no familiar system of symbols.

Neither six-vowel systems nor contrastive phonation are particularly exotic cross-linguistically; but Touo speakers have limited exposure to non-Austronesian languages, apart from English. Most elements of orthographic systems from other familiar languages can be borrowed directly, but these two things, breathy phonation and /ɔ/, require more serious innovations. The Roviana orthography does not use any digraphs, although Marovo does. English of course has many more than five vowel phonemes (though five separate vowel symbols), but knowledge of English is mostly poor. Furthermore, Solomon Island English has a much reduced vowel inventory, and the principles of digraph transcriptions of English vowels are too irregular to be unambiguously applicable to other languages.

A further possible problem is the lateral flap. In the Baniata region, the Touo rhotic is usually considered a type of "r", whereas in Lokuru it is considered a type of "l"; this is widely held to be a major distinguishing feature between the two dialects. Note that Touo speakers do not generally have difficulty distinguishing /r/ and /l/ in languages which make a distinction between them.

The second, unacknowledged obstacle in the way of a writing system for Touo consists of the different orthographic traditions of the various religions represented in the Touo-speaking area. Two systems are of major relevance: the Roviana (Methodist) tradition and the Marovo/Ughele (SDA) tradition. These differ with respect to only three phonemes, as shown in Table 2.

Table 2. Comparison of orthographies

doviana orthography	Marovo/ Ughele orthography	IPA symbol	
n	ng	ŋ	
= g	gh	g	
q	g	"g	

Interestingly, there is no perceived tension between these orthographic systems. Touo speakers do not see that there is any issue about choosing one system over the other; rather, each person we have spoken to has simply assumed that the system of their own church would be used insofar as possible.

There is considerable folk-linguistic awareness that Touo is not like the other languages around it, and the lack of a generally accepted writing system

for Touo is as much a matter of pride as disappointment for Touo speakers. The perhaps insurmountable difficulties of writing Touo have become part of many Touo-speaking people's folk-linguistic knowledge.

## Folk linguistics and academic linguists

The source of the myth of the unwritability of Touo can be traced to scholars working on Rendova in the 1950s and 1960s with the late John Kari, who was then Paramount Chief of the Baniata Region (one of the two Touo-speaking regions). The first of these scholars, the linguist Arthur Capell, spent some months in the 1950s living in Hopongo village; his host and main consultant at this time was John Kari. In the early 1960s, the anthropologist Harold Scheffler also came to Hopongo and worked with Kari; in addition to his anthropological work (Scheffler Ms, 1971, 1972), Scheffler did a great deal of work on the Touo language. Both Capell and Scheffler used the symbol  $\langle \mathsf{p} \rangle$  for the sixth vowel, and a colon following a vowel to indicate a breathy vowel (e.g.  $\langle a: \rangle$ ).

Another linguist, Evelyn Todd, spent a short time working on the language in 1972-73; she too worked with John Kari, who at that time was using Scheffler's orthography (cf. Todd 1975:824). Although she was not associated with the language for long, she had a significant impact because she sent a copy of the paper she wrote (Todd 1975) to John Kari; this paper, which is still kept and referred to by John Kari's youngest daughter, is one of the few examples of printed Touo language available to Touo people. (Interestingly, Early 1981 notes that he was shown this paper in Hopongo by John Kari.)

Capell and Scheffler both expressed uncertainty about their understanding of the phonetic and phonemic system of Touo (George Zama, p.c.; Jonathon Suka, p.c.; Harold Scheffler, p.c.), as did Todd (1975: 844). The fact that foreign experts have found the Touo sound system difficult has become an important part of folk ideology about the language.

John Kari was a self-taught polymath, a man of vision, and an influential leader. As the main conduit of communication with outsiders such as Capell, Scheffler, and Todd, he became very aware of the linguistic issues facing him in Touo orthography design. He was conversant with the writing systems used by linguists, he was familiar with the symbol (5), and he was aware of minimal pairs with contrasting phonation types. After Scheffler left Hopongo, Karl continued to do linguistic work on his own, and some of his notebooks have been preserved. Along with census data, ethnographic notes, prayers and religious texts in Roviana and Touo, there is an unfinished manuscript of an English-Touo dictionary — letters A through to P, using the English-Roviana dictionary of Waterhouse & Lawry 1949 as a source of headwords.

John Kari devised his own orthography for Touo, and taught it to some of his children. Kari was a leader in the CFC church, and his orthography follows the Roviana orthography, with several special symbols. His system uses digraphs: thus  $\langle y \rangle$  preceding a vowel indicates a syllable with breathy phonation. In his dictionary manuscript, most non-initial syllables without a consonant onset are also written with  $\langle y \rangle$ . For  $/ \circ /$ , he writes  $\langle or' \rangle$ , more rarely  $\langle oh \rangle$  or  $\langle oh' \rangle$ . The phoneme /s/ is mostly written (s) word-initially and (ts) word-internally.

John Kari taught this orthography to others, in particular to his daughters; however, since his death, much knowledge of the system has been lost. Our observations are that generally there is a certain amount of confusion over the meanings of  $\langle o \rangle$  vs.  $\langle or' \rangle$ ; the  $\langle ts \rangle$  is never used; and non-initial  $\langle y \rangle$  is used very occasionally, without consistency. Other people, even though they may be aware that Kari had a writing system, do not know what that system was, and generally today acknowledge a complete inability to write Touo. This raises the question: Why was John Kari's orthography not taken up, either in John Kari's lifetime or after his death?

#### 6. Touo linguistic ideology

A number of Touo speakers in the Baniata region commented that John Kari never managed to convince anyone, outside his immediate family, of the importance of studying and writing the Touo language. To be sure, he was an important and powerful man, and he had a great impact in most other areas of life; indeed, although he has been dead for over a decade, at the time of our study he was still referred to by many as the Chief in the Baniata region. However, his linguistic work failed to impress anyone locally. Indeed, it was rather negatively valued by the community, who felt that the time spent by John Kari sitting down and writing was time wasted; real work was seen as taking place in the gardens, in the form of food production. (This is a specifically CFC value.) The Baniata Touo speakers' negative evaluation of the importance of writing is one factor contributing to the present situation. Another possible factor is that, as Early 1981 notes, John Kari himself saw major flaws in the orthography he used.

Equally significant is the perceived limited role for literacy in Touo. Recent suggestions by some Baniata people of possible uses for Touo literacy — e.g. a

Touo story-book for school-children, and a Touo-English dictionary, were rather doubtfully acknowledged by other Baniata Touo people. The further possibility of hymn books in Touo was seen by many as a worthwhile goal; but many other Baniata Touo people felt differently, since Roviana hymn books already exist.

There is a widespread conception in the Baniata region that Touo is only appropriate for speaking, and although literacy in general is seen as useful, the appropriate language for literacy is Roviana. There is seen to be no point in doubling up by making books in Touo which already exist in Roviana.

However, these attitudes are prevalent only in the Baniata region, and they can be traced directly to the influence of the CFC. The Methodists, and later the CFC, used Roviana as their language of communication; and within the CFC in particular, Roviana has very high status as the language of the church. The CFC is something of which its congregations are extremely proud. Its members say that it is the only indigenous church in Solomon Islands — although this is not quite accurate; e.g., Maasina Rule is a quasi-religious anti-colonial organization on Malaita (Tuza 1977, Keesing 1978, 1979). In any case, the CFC is a focus for indigenous pride; but since the church straddles a number of linguistic boundaries, ethnic pride does not correlate with linguistic pride. Rather, the CFC sees itself very much in opposition to other churches of the region; and Roviana, the CFC's main language, is thus seen as an important tool in establishing a unique identity among its members. For CFC members, Touo language is not a matter of pride, and seems to be rather an embarrassment than something to be preserved and transmitted to writing.

Among speakers of Touo in the Lokuru region, which is affiliated with the SDA and UC churches, such pro-Roviana (and thus anti-Touo) attitudes are not evident; both churches are mainstream in the Solomon Islands, and there seems to be no need to establish a strong church-based identity. In these communities, Touo literacy is seen as a good thing, and issues of orthography are seen as relatively unproblematic. People in Lokuru frequently comment that the Touo language spoken in the Baniata region is mixed with Roviana. Our observations confirm a slightly higher use of Roviana loanwords in Hopongo village, but the language is certainly not "mixed" in the technical sense. People in the Baniata region largely concur with Lokuru people that Lokuru Touo is the purer form, although the prestige associated with this varies.

#### 7. A proposed orthography

Our proposed orthography was developed after meeting and discussing with schoolteachers and community leaders from all major Touo-speaking communities.

We made a number of suggestions, involving three main issues: the spelling of the velar consonants; the spelling of the breathy vowels; and the spelling of the /ɔ/. For the consonants, we suggested as options either of the two existing systems, the Roviana system or the Marovo system. For the breathy vowels, we suggested as options diacritics over or under the vowels — e.g. umlauts above, underlining, bars over, or acute accents over vowels — or else digraphs involving the vowel and some other symbol, e.g. a  $\langle y \rangle$  preceding the vowel, or a colon following the vowel. For the  $\slash$ 3/ we suggested a number of options based on an  $\langle o \rangle$  with a diacritic; these options were discussed with reference to the breathy symbols too, as the symbols would have to be compatible with each other. Alternatively, we suggested a totally different symbol than (o), e.g. (w), or John Kari's trigraph (or'), or the symbol ( $\emptyset$ ). We presented these options and listened to people's responses, maintaining neutrality as much as possible.

The orthography outlined in Table 3 is the consensus arrived at after these initial discussions. With further discussions, we think it realistic to hope that this system, or something like it, may eventually become generally accepted among all Touo regions and religions.

Table 3. Proposed orthography

Consonants		Modal vowels		Breathy vowels		
	t	k	i	u	yi	yu
b	d	g/q	e	0	ye	yo
m	n	ng/n	W		yw	
f	S	h	a		ya	
v	Z	gh/g				
	r					

In this orthography, digraphs of the type  $\langle yV \rangle$  are used for the breathy vowels, and  $\langle w \rangle$  for /ɔ/. The symbol  $\langle r \rangle$  is used for the lateral flap;  $\langle l \rangle$  would have been equally suitable, but  $\langle r \rangle$  has slightly more currency, so this was chosen. If people prefer (1), this will not cause any problems of ambiguity.

The vowels caused more discussion; however, there was a surprising degree of unanimity. Touo speakers are familiar with the look of at least three latinbased writing systems, and are familiar with all the letters of the English alphabet as well as <ñ> from the Methodist Mission orthographies. Deviations from those letter-shapes were unanimously condemned: Vowels with diacritics were not "proper" letters and were unsuitable for a practical orthography.

Similarly, the IPA-style (3) found no favour; it was not considered to be a "proper" letter, and thus was not suitable at all. Its incompatibility with typewriters also caused concern for possible future book production. Instead, digraphs of the type (yV), as originally proposed by John Kari for the breathy vowels, found unanimous favour; people felt that they looked nice, and looked reasonably appropriate to the sounds they are intended to convey. Such acceptability of novel digraphs was by no means expected; but perhaps the wealth of obscure and difficult-to-pronounce digraphs in English lends them prestige and acceptability which is not available to more unfamiliar types of orthographic innovation.

The biggest surprise was the acceptance of  $\langle w \rangle$  for /ɔ/. We had suggested this rather tentatively, feeling that nobody would like it; but since it did seem very practical, and reasonably close to the intended sound, we suggested it; and the people we spoke to were all very much in favour of it. Some commented that it would be good to have a really different orthography, because it meant outsiders could not easily understand written Touo - which was seen as a good thing. However, it was also felt to be easily learnable by Touo children.

As for the consonants, the Roviana/Marovo orthographic divide was not negotiable for any of the people we talked to: everyone assumed without question that the consonant system of the language which their church used was the only realistic and sensible system to use.

It seemed difficult, and most likely counterproductive, to try to impose one consonant system or another; rather, we felt that each community should decide whether it uses the Roviana-style  $\langle \underline{n},q,g\rangle$  , or the Marovo-style  $\langle ng,g,gh\rangle$ system for the velar nasal, prenasalised stop, and velar glide respectively. As personal preference in this matter entirely corresponds to church background, there is in effect no actual decision to be made by individual speakers.

Obviously there are major consequences of having alternative symbols for three of the phonemes. It could be considered very impractical for such a small language to have two orthographies. However, this was a non-negotiable point for all groups. There are practicality issues of making two versions of literacy

materials; but conversely, there is the practicality issue that, if one or other system was chosen, there is very little likelihood that it would be used by the other group. Further, creating a third set of symbols for these phonemes is also problematic: All six of the symbols already in use would have to be avoided, to make it clear that there was no sectarian bias. Similarly, taking one or two symbols from each system has the potential to create chaos. The compromise suggested here acknowledges that the church-derived orthographies are symbolically very powerful; it would be counter-productive, and most likely unsuccessful, to try to undermine them.

The consequences for a dictionary, for instance, are that either two separate versions must be made, or a single dictionary must use both orthographies. This has often been done before; a recent dictionary of Creek/Muskogee uses both a traditional and a phonemic orthography (Martin and Mauldin 2000), and biscriptal dictionaries exist, e.g. for Sanskrit (Devanagari and Roman) and for the language formerly known as Serbo-Croatian (Cyrillic and Roman).

It should be stressed again that it is not two orthographies that we are proposing, but rather one orthography with alternative symbols for three phonemes, one of which in any case occurs very rarely in the language. An obvious infelicity is that the symbol  $\langle g \rangle$  has different values in the two systems; but there are two reasons why it is not envisaged that this will cause confusion. First, the velar glide has a very low functional load. Second, confusion could only arise if the systems are mixed — but given the nature of the religious basis to the  $two\ systems, it\ is\ extremely\ unlikely\ that\ individuals\ writing\ Touo\ will\ mix\ them.$ 

The final proposal, as outlined above, was felt to be unique yet easily understandable. It seemed that, for the first time, problems of "unwritability" might be overcome. One community leader, once the proposed orthography had been discussed with him, immediately reached for his notebook and wrote it down, with sample words, in order that he could straightaway teach it to his part of the village.

Throughout the entire process we have aimed to avoid the types of problems outlined by Faraclas 1996 — e.g. so-called "experts" going over the heads of community members to impose orthographic decisions which may not be desired by the community. Most importantly, we very much wished to avoid further muddying the waters by introducing yet another unsuccessful orthography into this language. To this end, we have tried to ensure that the orthography is linguistically informed, but is one chosen by community leaders, rather than by ourselves as outsiders. What we have done is to conform as far as possible to what is already being done.

The task of creating a successful orthography is a different one from creating a successful vernacular literacy program. Our purpose here in creating an orthography is, in the first instance, just to take the first step, after which literature production can take place. Thus we consider that the success of an orthography cannot be judged in terms of whether, once it is in place, vernacular literacy and literature production occur; rather, we aim merely to remove the initial stumbling block that efforts towards literacy have thus far encountered, and to ensure that such efforts are not held up by lack of a suitable way to write Touo.

### 8. Conclusion and prospect

This rather close analysis of the orthographic problems of a small community in the South Pacific has highlighted a number of issues. First, the very notion of trying to create an orthography for a community is a fraught notion, in an area where sectarian and geographical differences have created a fractured society; although Touo speakers clearly constitute a single linguistic and ethnic group, intra-group differences mitigate against the creation of one single orthographic solution. The historical and continuing impact of sectarian differences, along with the history of church-based orthographic systems — themselves based on the different language backgrounds of the missions — produce a further source of resistance to a single orthography in Touo communities today.

The impact of previous researchers' opinions on local communities has had a significant impact on the developing folk ideology of the Touo language. There are already traditional beliefs beliefs about the language, stemming from the great linguistic divide between Touo, on the one hand, and the surrounding, closely related Oceanic languages. Besides these, folk beliefs about the strangeness, difficulty, and hence the unwritability of Touo have taken a strong hold. Even here, though, one must be mindful of the huge variation in belief and opinions and tradition on the part of Touo speakers with respect to their language. The orthographic solution currently under proposal is a reflection of the historical traditions of the sectarian and social divisions between different parts of the Touo-speaking community. To what extent it becomes a successful orthography remains to be seen.

#### Notes

\* We are grateful to the many people who are assisting our research on the Touo language. With respect to orthography, the daughters of John Kari — Elma Zama, Nizalyn Kari, Olivinta Vuda, and Melba Kari — have been helpful, as has Rev. George Zama in Hopongo village; Pastor Biliviti Pedoro in Baniata village; Jonathon Suka in Vanikuva village; and John Wesley and John Suia in Bangopingo village. We would like to thank Harold Scheffler for sharing his unpublished linguistic notes on Baniata with us, and likewise we are grateful to the Capell estate for giving us access to Arthur Capell's Baniata materials. We are also grateful to Robert Early and an anonymous reviewer for valuable comments on an earlier draft of this paper. Finally, we are grateful to the Max Planck Institute for Psycholinguistics, Nijmegen, and the Max Planck Institute for Evolutionary Anthropology, Leipzig, for supporting the fieldwork on which this paper is based.

1. Early 1981 cites figures supporting this observation; but note that his figure of 90% for literacy of Baniata speakers in their own language is very much higher than census figures for overall literacy in any language for any part of Solomon Islands. For instance, the recent census (Solomon Islands 1999) gives the overall literacy rate for Western Province as 79%. Early's high figures may be influenced by a number of methodological factors, e.g. the small number of non-randomly selected informants for each language surveyed.

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## The origin of Mayan syllabograms and orthographic conventions

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This paper surveys several processes by which CV and CVC phonetic sign readings were derived in Mayan writing. Four of these are acrophonic derivation processes:  $C_1V_1$  and  $C_1V_1G$  signs from  $C_1V_1G$  roots (G = /h ? y w x/;  $C_1V_1$  and  $C_2V_1C_1$  signs from  $(CV(G))C_2V_1(G)C_1$  roots/words;  $C_1V_1$  signs from  $C_1V_1C_2$  roots/words (  $C_2$  / G ); and  $C_1V_1$  from  $C_1V_1(G)C_2V_2C_3$  or C<sub>1</sub>V<sub>1</sub>C<sub>2</sub>V<sub>2</sub>(G)C<sub>3</sub> roots/words. Four more are non-acrophonic processes which have been discussed previously by other authors: script transfer, linguistic change or variation, formal or phonetic divergence, and formal or phonetic convergence. The implications of some of these processes for the origin and history of the Mayan script are discussed here, as well as for some of the underlying linguistic bases for such practices.

#### 1. Introduction

Using the iconic motivation of a sign as a clue to its decipherment is not the most cautious methodological approach, though it has been used, often successfully, in the decipherment of scripts around the world. In some cases, even when the iconic motivation of a sign is known, there may be several possible sourcewords to choose from. In other cases, this approach can be misleading, especially when a phonetic sign is used in pictorial art as a spelling for the name of an object or person rather than as a true icon. This distinction is clear in the following example based on Lounsbury (1989: 229–30).