Tamambo is an Oceanic language spoken on the western half of the island of Malo in northern Vanuatu. There are at least 3000 speakers of the language, most of them living on Malo, with several hundred residing on the neighboring island of Santo and in the country’s capital, Port Vila. Many speakers are also fluent in Bislama (an English-lexifier creole spoken in Vanuatu), one of three official languages. A dialect of Tamambo spoken on the eastern half of the island is now almost extinct, the main phonetic differences from the western dialect being the lack of prenasalized stops and labialized consonants, and the short articulation of vowels. Previous phonetic work on Tamambo is limited to a descriptive grammar of the language (Jauncey 1997).

The transcriptions are based on the speech of a 27-year-old woman from Jingotano village on Malo who was formally educated through grade six and has been living in Port Vila for eight years. Though she uses Bislama in public settings, this speaker communicates in Tamambo on a daily basis when interacting with family members, and she speaks on the phone several times a week with relatives still residing on Malo. Her pronunciation is representative of the younger, more mobile speakers. Throughout the paper, ‘younger’ refers to speakers of less than approximately 45 years of age, and ‘mobile’ describes those speakers who travel off the island of Malo, either regularly or for extended periods of time.

Most Tamambo speakers are not literate in the language, and among literate community members, there is disagreement over the orthographic symbols of several sounds (in particular, the velar fricative and labialized consonants). The orthographic representation of the passage is based upon the most conservative system, in accordance with the few published materials (such as old hymnbooks) in the language. Some recent materials produced for vernacular education on Malo, however, use a newer set of symbols, namely $c \rightarrow h$, $vu \rightarrow w$, and the symbol for additional labialization $u \rightarrow w$ (as in $bu \rightarrow bw$). In all of the systems used, the prenasalized stops are consistently written without a nasal in initial position but with a nasal in medial position.
Consonants

<table>
<thead>
<tr>
<th></th>
<th>Bilabial</th>
<th>Labialized bilabial</th>
<th>Alveolar</th>
<th>Post-alveolar</th>
<th>Velar</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plosive</strong></td>
<td>m\textsuperscript{b}</td>
<td>m\textsuperscript{b w}</td>
<td>t \textsuperscript{n d}</td>
<td>\textsuperscript{n j}</td>
<td>k</td>
</tr>
<tr>
<td><strong>Nasal</strong></td>
<td>m\textsuperscript{w}</td>
<td></td>
<td>n</td>
<td></td>
<td>\textsuperscript{\eta}</td>
</tr>
<tr>
<td><strong>Trill</strong></td>
<td></td>
<td></td>
<td>r</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fricative</strong></td>
<td>\textsuperscript{\beta}</td>
<td>\textsuperscript{\beta w}</td>
<td>s</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td><strong>Lateral</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>l</td>
</tr>
</tbody>
</table>

\textsuperscript{m b} \textsuperscript{mbara} \textsuperscript{bara} ‘to walk on the reef’
\textsuperscript{m b w} \textsuperscript{mb\textsuperscript{w}ara} \textsuperscript{buara} ‘spider’
\textsuperscript{n d} \textsuperscript{ndunu} \textsuperscript{dunu} ‘to soak something’
\textsuperscript{t} \textsuperscript{tunu} \textsuperscript{tunu} ‘to roast something’
\textsuperscript{m} \textsuperscript{mata} \textsuperscript{mata} ‘eye’
\textsuperscript{m w} \textsuperscript{m\textsuperscript{w}ata} \textsuperscript{muata} ‘snake’
\textsuperscript{n} \textsuperscript{na\textsuperscript{d}i} \textsuperscript{nandi} ‘to hit with a stone’
\textsuperscript{\eta} \textsuperscript{na\textsuperscript{d}i} \textsuperscript{ngandi} ‘ant’
\textsuperscript{\beta} \textsuperscript{\beta\textsuperscript{d}i} \textsuperscript{vindu} ‘to leap over’
\textsuperscript{\beta w} \textsuperscript{\beta\textsuperscript{w}d\textsuperscript{i}d} \textsuperscript{vuindi} ‘tail’
\textsuperscript{r} \textsuperscript{rako} \textsuperscript{rako} ‘bundle’
\textsuperscript{l} \textsuperscript{lako} \textsuperscript{lako} ‘to decorate something’
\textsuperscript{s} \textsuperscript{sivo} \textsuperscript{sivo} ‘just, only’
\textsuperscript{\textsuperscript{n j}} \textsuperscript{\textsuperscript{n j}ivo} \textsuperscript{jivo} ‘to go in down direction’
\textsuperscript{k} \textsuperscript{kete} \textsuperscript{kete} ‘to squawk’
\textsuperscript{x} \textsuperscript{xete} \textsuperscript{cete} ‘basket’

All of the consonant phonemes contrast initially and medially. Coda consonants are restricted to nasals and occur only word-finally, often due to affixation. (See the following section on vowels for exceptions to this generalization.)

The four voiced plosives are all prenasalized. The nasalization is strongest in medial position, and although weaker in initial position, is still usually present. The postalveolar stop /\textsuperscript{n t}\textsuperscript{f}/ is very frequently pronounced with an affricated release. Further, it is often voiceless, despite the prenasalization. Therefore, for some speakers, this voiced stop is consistently realized as the voiceless affricate [\textsuperscript{n t}\textsuperscript{f}]; this has been observed, for example, in the speech of a group of young adults residing in Port Vila. The bilabial stops /\textsuperscript{mb}, \textsuperscript{mb}\textsuperscript{w}/ are contrastive initially and medially. However, some younger speakers are losing the additionally labialized sound, collapsing both phonemes to the plain plosive. Prenasalized stops are common in the language, and it is simply a coincidence that none appear in the transcribed passage. The two voiceless stops are pronounced with slight aspiration by most speakers (approximately 10–30 ms).

The alveolar trill is pronounced as a robust trill in all positions by most speakers. On occasion, however, some speakers articulate a tap, both initially and medially.

The labialized fricatives /\textsuperscript{\beta}, \textsuperscript{\beta}\textsuperscript{w}/ are contrastive word-initially and, in a few words, medially. However, for many – especially younger – speakers, the plain bilabial fricative is consistently realized as labiodental, with a tendency towards voiced /\textsuperscript{v}/ in medial position and voiceless /\textsuperscript{f}/ in initial position. Further, for most speakers of all ages, the labialized bilabial fricative is realized as the labial-velar glide /\textsuperscript{w}/. This replacement of the bilabial fricatives, especially by
younger speakers, appears to represent a sound change in progress, perhaps due to influence from Bislama, which lacks bilabial fricatives. The velar fricative has several allophones. In medial position, most speakers pronounce the phoneme as \([\text{ɣ}]\), though \([\text{x}], [\text{h}], [\text{ɦ}],\) and \([\text{ɡ}]\) are also found in free variation, with a tendency for women and more mobile speakers to use \([\text{h}]\), and for younger speakers to use \([\text{ɡ}]\). In initial position, \([\text{x}]\) is commonly pronounced, though again the women and more mobile speakers tend to use \([\text{h}]\). Individual speakers exhibit personal tendencies.

The nasals, the lateral approximant, and the alveolar fricative do not exhibit allophonic variation. The labialized bilabials do not occur before \(/\text{u}/\), and only the fricative occurs before \(/\text{o}/\).

**Vowels**

<table>
<thead>
<tr>
<th></th>
<th>i</th>
<th>u</th>
<th>o</th>
<th>a</th>
</tr>
</thead>
<tbody>
<tr>
<td>e</td>
<td>xili</td>
<td>cili</td>
<td></td>
<td></td>
</tr>
<tr>
<td>u</td>
<td>xuli</td>
<td>culi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e</td>
<td>xeli</td>
<td>celi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o</td>
<td>xolo</td>
<td>colo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>xalo</td>
<td>calo</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Any of the vowels may occur word-initially, medially, or finally. Non-identical vowels may be adjacent, and sequences of up to four phonemic simple vowels are possible. However, when an unstressed high vowel /i, u/ precedes another vowel, it becomes the corresponding glide \([\text{j, w}]\). Some speakers additionally substitute the labial-velar glide for \(/\text{o}/\) in this environment.

Surface diphthongs often result from the sequences /ei, oi, ai, ou, au/ (regardless of which member of the pair is assigned stress). In careful speech however, some speakers pronounce each vowel separately.

All of the vowels are phonemically oral. Phonetically, vowels preceding a nasal exhibit some nasalization, beginning approximately halfway through the vowel. Vowels following a nasal, however, exhibit an even stronger degree of nasalization, with robust nasal airflow for the duration of the segment.

Centralization of the high vowels /i, u/ before a nasal has been observed for some, though not all, speakers, resulting in the allophones \([\text{i}, \text{u}]\). The speaker who was recorded for the passage does not centralize her vowels before nasals.

There are several contexts where an unstressed vowel may be deleted in fast, connected speech. The first context is at the end of the reduplicant in a reduplicated word. The deletion of high vowels /i/ and /u/ in this context is very common for all speakers, as in \(/\text{βiti-βiti/ → [βitβiti]}\) ‘to speak to many people’, and younger speakers additionally may delete mid and low vowels, as in /saxa-saxa/ → [saxaxaxa] ‘to work’. The second context is in word-final syllables, such as \(/\text{dunu/ → [dun]}\) ‘to soak something’. Deletion in this context is common to most speakers where a nasal precedes a final unstressed vowel, but may additionally occur after obstruents for younger speakers, as in \(/\text{noβu/ → [noβ]}\) ‘stonefish’. The third context is
specific to \(/u/\) and occurs when the vowel follows a consonant and precedes \(/r/\) or \(/l/\) as in \(/\text{b}urixa/\) → \([\text{bi}rixa]\) ‘black’, or \(/\text{mbule}/\) → \([\text{m}ble]\) ‘irrepressible’.

**Prosody**

Stress falls on the penultimate syllable, except when the final syllable is closed, in which case stress is ultimate. Phonetically, stressed syllables tend to be longer than their unstressed counterparts, with both the syllable onset consonant and vowel exhibiting increased duration.

Intonation is clearly differentiated for clauses in declarative sentences, imperatives, and questions. Declarative clauses within a series of clauses prototypically end with an upward pitch contour, with the last clause having a downward contour. Imperatives have a sharply falling contour, starting at a higher pitch than declarative clauses. With all questions (both polar and information-seeking), the pitch rises sharply to a peak on the antepenultimate syllable, and then falls sharply on the penultimate (usually stressed) syllable.

**Transcription**

Three forms in the transcription may not be predicted from the above discussion. First, the speaker pronounces \(/\text{atea}/\) ‘one’ as \(\text{hatea}\); this pronunciation of \(\text{h}\) before \(/a/-\)initial numerals is common among younger speakers. Second, in the form \(/\text{takaxi}/\) ‘remove,’ the speaker deletes the velar fricative \(/x/\), forming the diphthong \(\text{ai}\) from the preceding and following vowel, resulting in \(\text{takai}\). This pronunciation of the word is typical across speakers. The \(/x/\) does surface, however, in other related forms, for example when an object pronoun is added, as in \(\text{takaxi-a}\) ‘remove it’. Third, a phonological process that deletes \(/u/\) when it falls between a consonant and \(/l/\) can affect syllables that would otherwise receive stress. In the passage, \(/\text{mo-mule}/\) ‘he headed towards home’ is pronounced by the speaker as \([\text{momle}]\), the stressed antepenultimate syllable being the subject proclitic rather than the root.

**Phonemic transcription with interlinear English gloss**

\(\text{la}nji \text{mana alo na-loli matan xisei mo-suixa, tamaloxi atea wind COM sun 3PL-quarrel PREP who 3SG-strong man one mo-mule tusi mo-ruru na ruru \text{bonoxaxa}. 3SG-head.home across 3SG-wear ART clothes thick na-sora-sora-xi xisei mo-loli na tamaloxi mo-le takaxi 3PL-RED-talk-APPL who 3SG-make ART man 3SG-TAM remove no-na ruru ro nia mara suixa. mo-iso la}nji CLASS-3SG.POSS clothes thus 3SG.PRON person strong 3SG-finish wind mo-sere mo-suixa mo-ta sere mo-suixa tina tamaloxi 3SG-blow 3SG-strong 3SG-again blow 3SG-strong INTENS man mo-tauri lalati no-na ruru mo-iso 3SG-hold.tight with.force CLASS-3SG.POSS clothes 3SG-finish mo-suixa. mo-iso alo mo-alon mo-suixa. mo-te tuai 3SG-strong 3SG-finish sun 3SG-be.sunny 3SG-strong 3SG-NEG long.time tamaloxi mo-le takaxi no-na ruru. mo-iso man 3SG-TAM remove CLASS-3SG.POSS clothes 3SG-finish la}nji mo-\text{b}i\text{ti-a telei alo mo-re nixo mara suixa. wind 3SG-tell-OBJ.3SG PREP sun 3SG-say 2SG.PRON person strong
ABBREVIATIONS

2 = second person  INTENS = intensifier  PRON = pronoun
3 = third person  NEG = negative  RED = reduplicant
APPL = applicative  OBJ = object  SG = singular
ART = article  PL = plural  TAM = tense/aspect/modality
CLASS = classifier  POSS = possessive  marker
COM = comitative  PREP = preposition

Detailed phonetic transcription

Orthographic version
Langi mana alo na loli matan cisei mo suica, tamaloci atea mo mule tusi mo ruru na ruru vonocaca. Na sora-soraci cisei mo loli na tamaloci mo le takaci nona ruru ro nia mara suica. Moiso langi mo sere mo suica mo ta sere mo suica tina tamaloci mo tauri lalati nona ruru mo suica. Mo iso alo mo alo mo suica. Mo te tuai tamaloci mo le takaci nona ruru. Mo iso langi mo vitia telei alo mo re nico mara suica.

Acknowledgments
A portion of this research was generously funded by a Fulbright-Hayes Doctoral Dissertation Research Abroad Fellowship. Thank you to the Vanuatu Cultural Centre for research permission, Esme Roy and Oliver Antas for invaluable assistance with the transcription and recordings, and Abigail Cohn and two anonymous reviewers for their comments. Any remaining errors or omissions are, of course, our responsibility.

References