## 10

# Attempts to Write the Idu Mishmi Language and a Proposal for a Modern Orthography 

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## The Linguistic Situation in North-East India

The states of North-East India, known informally as the 'Seven Sisters', are a region of high linguistic diversity. Because of their geographical location, their populations align more with South-East Asia both culturally and in terms of language affiliation. Even within the region, Arunachal Pradesh is notable for both the number of languages and the high level of differences between them (Blench and Post, 2013). However, for political reasons, research and literacy development in the state remains at low levels. Arunachal Pradesh borders Tibet, and the Indian State claims to fear invasion from China, based on a major border incident in 1962. As a consequence, gaining access has been difficult and permits cover only short periods; so academic research on Arunachali languages has been limited.

Ironically, the Indian Government has long sponsored research on languages and cultures of Arunachal Pradesh, via the Museum and Institute, based in Itanagar. This goes back to the panchsheel policy of Jawaharlal Nehru, where he declared that the Adivasis (a rather ambiguous term for ethnic minorities in India) were to be 'cherished'. Despite scepticism from the minorities themselves, the government has funded a significant research effort in both linguistics and ethnography. The consequence has been a stream of publications, printed locally, which do not pass through a grid of external review. The linguistic volumes in particular are very much to a format, which is (in theory) to assist Government Officers in communicating with indigenous populations. Because these programmes are designed by Hindi speakers, they often use Hindi
script in addition to Roman characters and are suffused with mainstream Indian cultural concepts. ${ }^{1}$

Separately, there has been some involvement from more mainstream Indian linguists. The CIIL (Central Indian Institute of Linguistics) based in Mysore, has also sent individual researchers to produce monographs on regional languages. These are almost invariably produced without reference to any previous work and are often not locally available. Again, they do not appear to have passed through any review process. Quality may kindly be described as variable. Individual churches, especially the Baptists, based in Shillong, have also sponsored orthography development, but a weak linguistic background has meant that these efforts have been broadly unsuccessful.

Until recently, these developments rather bypassed the indigenous populations, who have not really felt any need to write their languages. The small percentage who were literate usually wrote in Hindi or English. However, this situation has begun to change rapidly. As a consequence of globalization and increasing access to education, more children pass through the educational system and are beginning to go on to university. Their perception that the very alien culture of mainstream India is being forced on them becomes stronger. Broader information streams from the internet and television, make more obvious both the uniqueness of their cultures and the threat to their values from the waves of dross pumped out by the mainland media. At the same time, mobile phones and the possibility of texting and communicating through Facebook have become more widely available since about 2008 onwards, providing a much stronger incentive to develop a 'script' (as an orthography is locally known).

On the question of orthographies, the position taken by existing official publications from the Indian side is rather unclear. They appear to want to encourage writing languages in both Roman and Devanagri script, but a clear distinction between phonology and orthography is lacking. Primers and other reading and writing materials or indeed any formal programmes are absent. Chinese-language publications are strictly academic and set out a proposed phonology, but their purpose is not to help people read and write, especially in view of the small numbers of speakers on the Tibetan side of the border. They are generally not available on the Anglophone regions.

Indian Government policy on minority languages is somewhat ambiguous. In principle, minorities have a right to education in their own language, although this is mediated by education acts in individual states. In practice, this is more likely to be implemented where a language has an existing script and written tradition, as is the case for many larger regional languages. It is widely believed that once a minority can demonstrate it has a 'script' in use, funds will become available for the printing of primers and other teaching materials and the use of the language in primary education.

This situation has not gone unnoticed by outsiders, especially mission-oriented linguists. Christianity has made an impact in some parts of Arunachal Pradesh, although traditional belief remains strong. An
institutionalized form of indigenous belief, Donyi-Polo, is widespread among the Tani peoples, and this acts as a barrier to wholesale conversion. As a consequence, attempts to develop orthographies have been conducted at a distance, for example by inviting speakers of minority languages to come to Assam and record material for analysis outside Arunachal Pradesh. Since these results are never published, the analyses only exist in samizdat form. This material is further discussed below, but it is safe to say that without backup from a literacy programme its impact has been minimal.

This background suggests the importance of conducting fresh linguistic field studies and assisting with the development of orthographies directly where the language is spoken rather than at a distance. Given the unreliable results from trying to analyse phonology at long range, the potential to circulate digital data and subject hypotheses to wider scrutiny is essential. This chapter ${ }^{2}$ describes the situation of Idu, one of the 'Mishmi' languages in Arunachal Pradesh, covering its geography, existing literature, basic phonology, and the prospects for developing a consistent orthography which can be used by the community. It also describes briefly the complex problem of register in this language.

## The Mishmi Peoples

The term 'Mishmi' has been used in the travel literature as far back as the early nineteenth century to refer to three distinct peoples and languages, the Kman [=Miju], Tawra [Digaru] and the Idu. The numerous variant names and spellings are detailed below. All of these peoples live in the north of Arunachal Pradesh, bordering Tibet and Myanmar, and all have villages across the frontier. Mishmi is a cultural classification; while Idu and Tawra languages are apparently related, Kman is quite different. Despite this, the Tawra consider themselves as closely related to the Kman and distinct from the Idu. This local ethno-classification has had an important impact on linguistic publications.

The Idu are also known as Chulikata [=Chulikotta, Sulikota], Midu [=Ida, Midhi, Nedu], Yidu Luoba, Lhoba [Chinese terms]. It is unfortunate that the ISO code [ckt] is based on the pejorative term Chulikata, now discouraged. The earliest reference to the Idu language is in Brown (1837). Some material can be found in Campbell (1874) and Konow (1902). The only significant publications on Idu from the Indian side are the pre-linguistic Talukdar (1962), Jaten Pulu (1978) and Jimi Pulu (2002a, b). Their main value is as elicitation guides, although the centralized Hindu-mainstream thinking that dominates its semantics, means they need to be treated with caution. Idu has also been described from the Chinese side [under the name Lhoba, Luoba], notably in Sun et al. (1980), Ouyang (1985), Sun (1983a, b, 1999) and Jiang [江荻] (2005). $\ddagger$

## Idu Settlements

The Idu originally seem to have been extremely scattered and publications such as the Lohit District Gazetteer (Dutta, 1978) records numerous settlements with a single family. However, the linguistic geography of the region was changed
dramatically by a major earthquake in 1950 which struck the area of the Dibang Valley, causing considerable destruction. A flood following the earthquake also damaged existing settlements in the plains area and indirectly led to the establishment of Roing as a regional centre. The consequence was that many Idu and some Tawra villages in the Upper Siang were permanently depopulated. Households came down from the hills and settled in the fertile plains of the Brahmaputra. This was complicated, since there was significant prior settlement by both the Assamese and Nepalis, who had been relocated following military service. New villages were established and there was a switch to a rice-growing culture more characteristic of the Assamese, which also changed Idu culture in important ways through contact with large-scale cultures and languages. Table 1 shows the locations of the Idu in India and China.

Table 1
Locations of the Mishmi Peoples

| People | India | China |
| :--- | :--- | :--- |
| Idu | NW Dibang District | SE Tibet, Zayul County, one village |

Sources: Bradley (p.c.) and Ethnologue (Lewis et al., 2016)
Table 2 presents the population figures given in Ethnologue (Lewis et al., 2016) which are drawn from Indian and Chinese government census figures.

Table 2
Mishmi Peoples, Population Estimates

| People | India | China |
| :--- | :---: | :---: |
| Idu | $11,000(2001)$ | 80 |

These seem improbably high, given the small size and number of villages. Most local estimates suggest there are 4,000-5,000 current speakers of each language. Estimating competency remains a major issue, with a large percentage of younger people only having a passive knowledge of the language.

## Socio-linguistics

The region is poorly described in the anthropological literature. There are passing references in the early travel literature (e.g. Wilcox, 1832; Rowlatt, 1845; Griffith, 1847; Brown, 1850; Young, 1907; Hamilton, 1912). Dalton (1872) is the first description of the main parameters of Idu life covers their social organization and 'warlike propensities' and his striking illustrations are not so dissimilar from village scenes today. The anthropological overview by Mills (1952) focuses heavily on kinship systems. Two monographs published in India describe the Idu, Baruah (1988 [1960]) and Bhattarcharjee (1983) and these contain valuable descriptive material. The present volume should improve this situation.

If speaker numbers are in the few thousands, then the Mishmi languages are threatened but not critically endangered, between 6 and 7 on the EGIDS scale. Adults in peri-urban areas are often heard bemoaning the ability of youth to speak the language properly, and indeed, Hindi and English (and even Nepali) can be heard in houses around the town. Nonetheless, children in rural areas seem to be fluent speakers. There is no good information about the status of Chinese and Tibetan among Mishmi speakers across the border.

An issue which is not entirely resolved is the amount of internal variation in the Mishmi languages. Idu was certainly traditionally divided into 'Upper' and 'Lower', although the difference between these was quite small, according to examples cited. However, the 1950 earthquake threw the existing situation up in the air rather literally and 'Upper' households moved to the plain. As a result there is a significant variation between speakers even in adjacent households, mostly in the articulation of fricatives and affricates and palatalization of nasals. This does not seem to be the case with Tawra and Kman, where speakers from different villages usually have identical pronunciations. In addition to everyday speech, Mishmi languages have a striking feature, the existence of multiple registers, whose status is harder to evaluate. These are described in more detail in §4.

## Classification

The first alignment of the Mishmi languages with a phylum is Brown's (1837) inclusion of these languages in 'Indo-Chinese'. Konow (1902: 614-641) provides more analysis although his material seems to be derived entirely from earlier sources. These languages were ascribed to a 'North Assam' group of Tibeto-Burman, for which no comparative evidence was presented. This has essentially been accepted and repeated in numerous subsequent classifications (see Blench and Post 2013 for more detailed discussion). It is generally recognized that Idu and Tawra are related and this subgroup has been given the name Digarish, based on a river name applied to the Tawra. There is no doubt that these languages share many typological features with Tibeto-Burman, but this hardly constitutes proof of membership of the phylum. Evidently, the classification is only marginally relevant to the development of an orthography, but at present a cautious approach to the affiliation of Idu is recommended.

## Phonologies

## Overview

One the features that argues against the closeness of the Mishmi languages and the problem of trying to develop a 'one-size fits all' orthography is the differences in their phonologies. Idu is by far the richest, both in terms of vowel contrasts and modified consonants. The descriptions of vowel length and nasalization in Jatan Pulu (1978) and Jimi Pulu (2002a, b) are inaccurate, undermining the basis for an orthography. In this section, a summary phonology is given, which can be compared with the orthographic proposals outlined in $\S 4$.
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described in more detail in §4"???

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In this section, a summary phonology is given, which can be compared with the orthographic proposals outlined in §4.

## Idu

Idu consonants are shown in Table 3.
Table 3
Idu Consonants

|  | Bilabial | Labio-dental | Alveolar | Retro-flex | Palato-alveolar | Palatal | Velar | Glottal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Plosive | $\mathrm{p}, \mathrm{p}^{\mathrm{h}} \mathrm{b}$ |  | t, t d |  |  |  | k, $\mathrm{k}^{\mathrm{h}} \mathrm{g}$ |  |
| Fricative |  |  | s, s [z] |  | [J] |  |  | h |
| Affricate |  |  | ts [dz] |  | $t \int, \mathrm{f}^{\mathrm{h}}, \mathrm{d}_{3}$ |  |  |  |
| Nasal | m |  | n |  |  | л | $\eta$ |  |
| Flapped |  |  | r |  |  |  |  |  |
| Lateral |  |  | 1 | $l$ |  |  |  |  |
| Approximants | w |  |  | ¢ |  | y |  |  |

Idu has a small subset of long or doubled consonants both in initial and medial position. Doubled initial consonants seem to be $/ \mathrm{mm} / \mathrm{and} / \mathrm{ll} /$, which are illustrated in the following contrasts;

| lō | Warm | lō | to purchase |
| :--- | :--- | :--- | :--- |
| mmā | New | mà | old |
| mmò | to hide | mō | to bury |
| rrã̀ | leave field fallow | rā | sharp |

Doubled consonants in word-medial position are/mm/, /ll/, /tt/ and /rt/.
$/ \mathrm{s} /$ and $/ \mathrm{S} /$ appear to be in free variation in many words, and are probably not to be considered distinct phonemes. However, in loanwords, such as /sini/ 'sugar', the original alveolar sound is conserved. The voiceless fricative /z/ appears in some words, for example azu cobra sp. or ibizu 'pika'. However, it is in free variation with both the affricate [dz] and the palatal affricate [d3]. Some speakers prefer [z] for particular words, so it may well be acceptable to write it as part of the alphabet, but it is unlikely to be a distinct phoneme.

Aspiration is the most common form of consonant modification and can be applied to all voiceless consonants. Thus;
$/ \mathrm{p}^{\mathrm{h}} /$, /th $/$, $\mathrm{k}^{\mathrm{h}} /, / \mathrm{t}^{\mathrm{h}} /, / \mathrm{s}^{\mathrm{h}} /$
$/ \mathrm{p}^{\mathrm{h}} /$ is part of a consistent aspirated series, but is sometimes heard in free variation with [ f$]$.

Only $/ \mathrm{p} /, / \mathrm{p}^{\mathrm{h}} /$ and $/ \mathrm{b} /$ can be labialised in Idu, and this is uncommon. The following consonants can be rhotacised;
$/ \mathrm{p}^{\mathrm{r}} /, / \mathrm{p}^{\mathrm{hr}} /, \mathrm{b}^{\mathrm{r}} /, / \mathrm{thr}^{\mathrm{hr}} /, / \mathrm{d}^{\mathrm{r}} /, / \mathrm{J}^{\mathrm{r}} /, / \mathrm{k}^{\mathrm{r}} /, / \mathrm{k}^{\mathrm{hr}} /, / \mathrm{g}^{\mathrm{r}} /, / \mathrm{m}^{\mathrm{r}} /$
One of the more perplexing issues in Idu phonology is the variation in palatalisation, labialisation and rhoticisation, i.e. whether $-\mathrm{y},-\mathrm{w}$ or -r is articulated after a consonant. Many words seem to vary from one speaker to another and even within the speech of one individual. Although there are dialect differences between 'Upper' and 'Lower' Idu, this is apparently not one of them. There is a
definite tendency for younger speakers to drop these consonant modifications, for example, saying пори instead of nyopu for 'breast'. It is usual in writing systems to prefer the older, more conservative forms, but this remains an issue for discussion.

## Vowels

The vowels of Idu are shown in Table 4.
Table 4
Idu Vowels

| Vowels | Front | Central | Back |
| :---: | :---: | :---: | :---: |
| Close | i [i] |  | u [ũ], [ut] |
| Close-Mid | e [ẽ] |  | o [õ] |
| Open-Mid |  | 2, ${ }^{\text {a }}$ | [ 0 ] |
| Open |  | a [ã] a |  |

Idu has contrastive long vowels. However, some Idu words have two vowels of the same type following one another which are pronounced separately. Examples are;

| à.ágrà | basket for baby |
| :--- | :--- |
| à.átò | loom part |
| è.écè | dao |

All vowels in Idu can also be nasalised and vowel length contrastive. The following long nasal vowels have been recorded.
/ãã/, /ẽẽ/, /โ̃1/, /õõ/, /ũũ/
No examples of nasalised long schwa / / have been recorded. The retracted vowels show length but no nasalisation.

In at least one example, a triple-length nasalised vowel has been recorded. This illustrates the probable genesis of long vowels in Idu, through intervocalic consonant deletion. The 'long' form is;
jōlòlò̀ looking like an owl
However, the usual form is;
jõ̃.oั̀ồ looking like an owl
The first $\tilde{o}$ is separated from the õõ by an audible break, presumably reflected the change in tone level. Nasalisation has spread leftwards across all syllables, reinforced by the prior intervening consonants being laterals.

Apart from ordinary and nasalised vowels, Idu also has retracted vowels, where the lower jaw is pulled inwards at the moment of articulation. Two vowels have been recorded with this articulation, $/ \underset{\sim}{q} /$ and $/ \underset{q}{ } /$. Only $/ \underset{\sim}{p} /$ is common. For ease of reading, retraction is noted throughout this document by underlining rather than the IPA symbol. The phonemic status of the schwa is shown by the pair;

| khó faeces | khó to satisfy |
| :--- | :--- | :--- |
| ícíkhó |  |
| small |  |

ánjìgropp wild plant sp.
The nature of retracted vowels which are not part of an ATR vowel harmony system is disputed and Moisik et al. (2012) have recently proposed a new mechanism to explain them.

Idu has a single creaky vowel which only occurs in a single context, followed by a palatal (Table 5);

Table 5
ay sequences in Idu

| $l d u$ | Gloss |
| :--- | :--- |
| ạyē | be irritating |
| ạyyē | strip kernels from maize |
| ạ̀yē | poison |
| à̀yà | daughter |
| ạ̀yèbò | ritual |
| māạ̀y | serow |

Idu has abundant ay-sequences with a non-creaky vowel, but as Table 5 suggests, these are never followed by -e, which suggests/a/ is conditioned by the following mid-front vowel.

## Tones

Idu has three contrastive tone heights, like its neighbours, Tawra and Kman, but unlike most regional languages. In this it resembles some of the Naga and Kuki-Chin languages. Rising and falling tones are absent on single segments and are only associated with VV sequences. The three level tones are marked as follows;

High
Mid
Low
A macron ( ${ }^{-}$) over a vowel is thus mid-tone and not length.
The following are examples of minimal triplets, demonstrating the three contrastive tone heights.

Buy ló
White lō
drill, make hole lò
smoke s.t. on a tray kù
Grains kū
go on journey and return on the same day kú

## Existing Literature and Proposed Orthographies

## Formal Orthographies

The first formal attempt to develop an orthography for Idu followed a visit by linguists from the CIIL (Central Institute of Indian Linguistics). It is not clear what analysis was undertaken but a trial primer was published (CIIL n.d.). This made use of what may tactfully described as unlikely conventions, including @ for schwa and doubled vowels for high tone. A storybook including songs and narrative pieces on Idu life was published using these conventions but is now extremely rare (Figure 1).

Christianity among the Idu does not yet have a high profile, but missionaries from other regions of NE India would like to see a bible translation undertaken. Funded by Living Word, Shillong, the Baptist Church of Nagaland began a project to translate the New Testament around 2000. To develop an orthography for Idu, they employed a Mizo missionary with some knowledge of linguistics. No formal phonology was undertaken and the basis for the orthography is thus unclear. Figure 2 shows the title page of the Gospel of St. John, published in a trial edition in 2013. This incorporates some rather counter-intuitive orthographic conventions, including the use of ' $x$ ' for nasalisation. It omits the schwa, retracted vowels, long vowels, tones and other features of Idu which might be considered necessary to successful reading and writing. The consequence has been a sort of polite revolt inside the congregation, who are currently in discussion with the non-Christian literacy committee concerning a more effective orthography.

A curious addendum to these efforts at an orthography for religious purposes is Mega (n.d. but 2013). The cover is shown in Figure 3. This was apparently commissioned by the Bible Society of India although this is not evident from the book itself. Mega is concerned that 'This gives us reason to ask why all those efforts did not bring much fruit as it was expected'. This is a review of the existing systems and a proposal for a revision, heavily illustrated with colour images,

Figure 1
Idu Storybook


Figure 2
Gospel of St John in Idu


Figure 3
Cover of Bible Society Reading Book

apparently drawn from the internet. The revision has some curious features, including the omission of aspirated consonants on the basis that they 'need not be listed as they do not create any unnatural sound’. Mega (op. cit.) marks 'stress' (apparently tone), nasalisation, 'rough breathing' (perhaps retracted vowels) and 'rough nasal'. As he gives a single example of each sound in transcription it is difficult to compare this with a more mainstream account of the phonology. The reasons for producing this book are unclear but it has not been accompanied by any programme of dissemination, and has inevitably fallen by the wayside. There is more than a possibility this is an expression of inter-church rivalry among Protestant groups.

## Texting, Facebook and Other Informal Orthographies

As may be clear, all these attempts to develop orthographies have failed, for lack of clear phonological analysis, coherent orthography proposals and follow-up. This was of limited interest to the communities until the later 2000s, when access to mobile phones and the internet became more widespread, at least in the plains areas. The potential to communicate via texting and Facebook became exciting, especially as written Hindi skills are far less developed than informal spoken varieties. The consequence was the development of ad hoc and somewhat inconsistent orthographies which could be typed without recourse to special characters. As writing systems, these work because the content is fairly predictable and the vocabulary is small. Tone and some of the more exotic consonants and vowels are not written, nor is length marked consistently. These surface in a small number of public signs (e.g. Photo 1 which shows the Idu language sign above the parade-ground in Roing).

The existence of informal writing systems which work within a specific context creates a dilemma for linguists. Clearly their existence helps encourage the principle of reading and writing, but the absence of background analysis makes developing consistent teaching materials difficult or impossible. However, it is important to make a compromise with informal systems, and one principle is that use of special characters is excluded. This is an important change, since the availability of computers with Unicode character sets has encouraged the use of common IPA characters such as ' 1 ' in recent orthographies. The former difficulties of printing now bypassed, a more IPA-like direction seemed a good way to go. However, although mobile phone character sets do include some upper ASCII characters, the time wasted in seeking these out, means that typing is much quicker with the ordinary keyboard

Photo 1
Idu public signage in Roing


Source: Author Photo. set. Orthography design must take on this new reality or risk being ignored.

## Orthography Proposal for Idu

Table 6 shows the main consonants of Idu with the most usual way of writing them. The difficult consonants, where a writing solution is still under discussion, are marked with a shaded line.

Table 6
Writing Idu Consonants

| IPA | As in | Gloss | Written | Hence |
| :---: | :---: | :---: | :---: | :---: |
| p | pà | to cross | p | pa |
| $\mathrm{p}^{\text {h }}$ | $\mathrm{p}^{\text {hálá }}$ | tea | ph | phala |
| b | bùjì | yesterday | b | bunyi |
| t | tì̀ | to cover | t | ti |
| $\mathrm{t}^{\text {b }}$ | $t^{\text {hù }}$ | bite | th | thu |
| d | dò | suck | d | do |
| t¢ | tçí | to rot | tc, ts, cy | tcin, tsin, cyin |
| k | kı̀ | rice | k | kə |
| $\mathrm{k}^{\text {h }}$ | $\mathrm{k}^{\text {ho }}$ ogá | dispute | kh | khoga |
| g | gò | to carry | g | gə |
| h | hǎ | eat | h | ha |
| s | sá | bridge | s | sa |
| $\int$ | Sù | red | sh | shu |
| ts | tfí | acquire | c | ci |
| t5 ${ }^{\text {h }}$ | $\mathrm{tf}^{\text {hiò }}$ | to walk | ch | chi |
| d3 | dzámì | yak | j | jami |
| z | áduù | cobra sp. | z | azu |
| m | má | black | m | ma |
| n | ná | painful | n | na |
| n | nà | dance | ny | nya |
| y | yá | I, me | ng | nga |
| r | rò | arrest | r | ro |
| ¢ | cí | boil | rh | rhi |
| 1 | lò | white | 1 | lo |
| $l$ | ílù | eight | 1 h | ilhu |
| w | wá | cancer | w | wa |
| y | yù | beer | y | yu |

Five of the Idu vowels correspond to English vowels as in Table 7 and can be written that way:

Table 7
Idu Cardinal Vowels

| IPA | Example | Gloss | Written |
| :--- | :---: | :---: | :---: |
| a | à | child | a |
| e | è | to do | e |
| i | ì̀ | to live | i |
| o | ò | to shoot | o |
| u | ù | to pluck | u |

The two other unmodified vowels are $/ \supset /$ and $/ \supset /$. These can be written 'oh' and ' $\partial$ ').
$/ \rho /$ is very rare and a practical orthography may be able to dispense with it.
toh tō to row
$/ \rho /$ is extremely common and can be written using the standard IPA symbol.

| gədu | gə̄dū | tapioca |
| :--- | :--- | :--- |
| ngə | n̄̄ | to saw |
| kə | k̀̀ | paddy |
| brə | brà | to swallow |

The only common retracted vowel is/op/ which can be written ' $\underline{\rho}$ '

| nga | Ø】̄ | sickness |
| :---: | :---: | :---: |
| go | g ${ }^{\text {a }}$ | to carry |
| ho | hā | honey |
| ilikh ${ }^{\text {a }}$ | ìīkhò | soil, earth |

The single breathy vowel /a/ can be written 'ah' but it may be that speakers will automatically insert breathiness in the restricted phonological context.

| ahye | ạyē | be irritating |
| :--- | :--- | :--- |
| ahye | ặyē | poison |
| ahya | àyà | daughter |
| maahy | māạ̀y | serow |

Tones may need to be written to distinguish particular pairs or minimal triplets, such as in the examples in $\S 2$. At present testing will need to be done to establish the most practical strategy for tone-marking. Normal practice with three-tone systems is to leave mid-tone unmarked, as in the transcriptions in this paper.

## Specialised Language Registers

## General

A particular feature of language among the Mishmi peoples is the parallel registers used for specialised purposes. These range from shamanic chants, which are incomprehensible to speakers of everyday language, to mourning and humorous registers, understood by everyone. They include a language used by hunters while engaged in hunting, an angry register and vocabulary only used in poetry. Some of these are sufficiently different from everyday language, as not to be comprehensible to someone unfamiliar with them. Hunting and poetic language are substitution languages, where ordinary lexemes are replaced by new and unfamiliar items, but the syntax and morphology is preserved.

Shamanic language is more complex, since it includes elaborate periphrastic expressions, and fixed expressions which do not always conform to ordinary usage. The angry/mediation register includes shifting tones a level higher than normal speech and the use of complex replacement phrases that emphasise parallelism. These registers can be summarised as in Table 8;

Table 8
Registers of the Mishmi Languages

| Register | Characteristics |
| :--- | :--- |
| Hunters | Spoken during hunting. Names of most animals and some common lexical items <br> substituted either by periphrastic expressions or lexemes of unknown origin. <br> Mostly unknown to speakers who are not hunters. |
| Shaman | Shamans are required to recite lengthy chants in a language generally not <br> understood by everyday speakers. Common lexemes replaced by complex <br> expressions, but also unusual syntax. Some replacement lexemes understood by <br> mature adults. |
| Mourning | A series of fixed replacement expressions used in mourning. Reported for Idu <br> Angry/mediation |
| A series of lexical replacements used in mediation in disputes between <br> individual households or clans. Can also be used in angry speech. Reported for <br> Idu |  |

None of the languages are 'secret' in the sense that speakers are unwilling to discuss them. However, public knowledge of them is extremely patchy, especially among young people, and it is clear that further research is required to define their status more exactly. If register is a 'variety of a language used for a particular purpose or in a particular social setting' then what happens in Mishmi goes rather beyond this. Certainly in terms of comprehensibility, the language of hunters and shamans are distinct languages.

## Hunters' Language

The use of a specialized language spoken by hunters while engaged in the hunt was first reported in Sun (1999). Sun only provides a short table of examples of hunters' terms and interestingly, no animal names, which are at the core of this practice. To give an example of the substitutions typical of this system, Table 9 gives the ordinary and hunters' names for key animal species in Idu.

Table 9
Idu Names for Animals in Hunters' Language

| Species | Idu | Hunters' Name and Gloss |
| :---: | :---: | :---: |
| bear, generic | áhừ | àmbrè njòsto 'wild huge and awkward' (walks from side to side) |
| deer generic | mànjò | áphú áci 'from the field' (deer come and eat crops in the night) |
| deer, musk | álá | ámbéshù 'small animal' |
| goral | ámì | àjùshù 'deep and high gorge small' |
| serow | máyè | àmàdro 'split in two' (because it has a divided hoof) |
| thakin | ákhrù | àmbrè kàcì 'animal big' |
| tiger | àmrá | áทgócì 'from the highlands' ávgó = montane region. |
| wild pig | ám ${ }^{\text {wé }}$ | Ènàmbj̀n dì 'nose sharp' |

Although all the hunters' names were eventually etymologised, even the components of their names are sometimes rather obscure and arcane words, only known to older people. It seems that this is not a fixed lexicon, as hunters' names for animals in the Huli area were significantly different from those recorded in the plains.

## The Language of Shamans

Shaman's chants are easy to record but complex to transcribe. The typical chant may last for many hours, performed by the bed of a sick person, and since the chants are learnt by rote, not even the shaman may be able to gloss every line. As an example of the language used, below are two expressions for the squirrel ada in Idu. The word-by-word glossing is as explained to me, but some words do not correspond to everyday speech. 'Tree', for example, is normally asimbo not asi, and the way of expressing 'above' and 'below' are also different.

| asi | ingu lo ne | ruya | อiga |
| :--- | :--- | :--- | :--- |
| tree | below the branches | noise | one who |
| asi | ngu pu n $\varepsilon$ | mra | อiga |
| tree | top | stomach pain | one who |

At this point, it can only be said that a great deal of more work is necessary to make definitive statements about all features of this language.

## Can a Successful Orthography be Designed?

## What will it take for an orthography to be accepted?

The discussion above makes clear that none of the attempts to develop an orthography for the Mishmi languages have been successful. The phonology has not been analysed according to modern methods, a document setting out the relationship between phonology and orthography not prepared and the community not consulted. Most of all, there has been no mechanism for a followup. In the past speakers may not have been strongly motivated to develop a writing system, but this has changed, in part due to the desire to communicate via texting and the internet, but also due to an increasing awareness of cultural loss.

This situation can now be remedied in part. Phonology and orthography documents have been developed, and committees have been formed for Idu and also Kman. E-mail has made it possible for discussions for amendments and changes to be made at long distance and more regular visits can be made in person. However, the existing use of the Mishmi languages for texting has the implication that an orthography which requires special characters may struggle for acceptance. The next step is, therefore, to ensure that the writing conventions are genuinely accepted by the community rather than by a few enthusiasts, and that test versions of reading and writing books are circulated and evaluated.

## Representing Language Registers

All the Mishmi languages have additional registers apart from everyday speech. Research on the nature and extent of these is in early stages, but so far there is
no evidence of distinctive phonology, so these will probably not require any new conventions in the writing system. However, the language of shamans in particular is full of expressions whose etymologies are unclear. Decisions will need to be made about word breaks and other matters. However, this can safely be postponed until orthography is established for everyday speech.

## Conclusions

The chapter describes the status, terminology and degree of documentation of the Idu language, spoken in Arunachal Pradesh, NE India, and to a much lesser extent in Tibet. It is probably more endangered than is suggested by the Ethnologue, in part because the figures may reflect the populations of towns said to speak indigenous languages but in reality dominated by major South Asian languages, such as Hindi, Assamese and Nepali. It is likely that Idu has no more than a few thousand fully fluent speakers, with several thousand more semi-speakers and similar numbers claiming ethnic identity, but unable to speak the language. Although language use in committed homes remains vigorous, there has been a highly significant loss of specialized terminology, particularly ethnoscientific. Many terms for the natural world are increasingly unknown to speakers in a multilingual environment. However, there is now a lively interest in writing these languages.

## Notes

1. It is unclear why one might want to say 'the elephant is the largest of animals' in a region where there are no elephants.
2. I would like to thank Dr Mite Linggi and other members of the Idu community for assistance in the field and subsequent discussion over the internet. More developed versions of this talk were given at the Max Planck Institute, Nijmegen on 8 May 2015 and at the Meeting of the Consortium for the Prehistory of the Eastern Himalayas, Sydney 21 August 2015. I would like to thank the audience on all these occasions for comment and discussion. A community presentation on Idu orthography was given in Roing on 27 December 2015, and a second presentation on the project as a whole in Tezu, 29 December 2015.

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