

Challenges with Minority Indigenous Languages and Language Technologies

Apolonia Tamata

iTaukei Trust Fund Board
87 Queen Elizabeth Drive, Suva, Fiji
apoloniat@itaukeitrustfund.com.fj

Abstract

In this paper I will describe a few critical features of minority indigenous languages to understand their minority status. The status of standard and non-standard languages and how they co-exist within the same national context will be explained. I will then focus on working with minority indigenous languages and the challenges faced when applying language technologies. The challenges stem from the number and size of the minority indigenous languages. Developing language projects for minority indigenous languages may not be economically efficient for a nation.

Keywords: standard language, non-standard language, multilingual, indigenous minority languages, language technologies

Résumé

E na pepa qo au na dusia tiko e vica na ka era tautauvata kina na veivosanivanua e Viti. Na vosanivanua e sega ni dau taurivaki raraba me vaka na Vosa Vakaviti Raraba. Au na qai vakamacala tale ga e na bolebole e dau sotavi ni tovolei me vakayagataka na porokaramu eso ni kompiuta kei na veilawa. E basika na bolebole ni levu toka na iwiliwili ni vosanivanua ia era lewe lailai na lewenivanua era vakayagataka na nodra vosanivanu. E sega kina ni veiraurau vakailavo na sasaga me toroi cake na vosanivanua ni levu toka na kena iwiliwili e na so na matanitu ia era lewe vica ga na itaukei ni vosa me ra vakayagataka.

1. Minority Languages in Context

A minority indigenous language by implication means that the language is not spoken by the majority of the population of a country. A minority indigenous language (MIL) also implies that other languages are spoken in the country and one of them would be the major language and spoken by the majority. A MIL would therefore not be spoken by the majority of the population. Whether a language is a minority or a majority language in a nation it is relative to the number of speakers there are in each language.

In this context where there are minority and majority languages, it is typical that the population of the country would be bilingual, trilingual or multilingual, that the people may be of different ethnicities or geographical regions and that they would have different mother-tongues. In addition to this, in a multilingual context, there would be an official language and perhaps a national language. The language situation of a country as the above is rich linguistically and culturally and at the same time complex for it denotes language choices, language preferences, language identities and also code mixing.

2. Indigenous Languages in the Pacific

There are approximately 300 indigenous communalects in Fiji (Geraghty, 1983). A communalect is defined as the language the

speakers in a village or geographically defined community identify as theirs and is uniform and distinct from the other neighbouring languages (ibid.). Some may refer to these community defined languages as dialects or tribal languages. The principle by which a communalect is defined for the Fijian language recognizes the knowledge of language distinctiveness of the speakers and a sense of identity and ownership towards the communalects.

Apart from communalects, there is the Standard Fijian (SF) dialect of Fiji which does not have a geographically defined community of origin. SF is based on the missionaries' version of a number of dialects and were used initially to write and translate Christian books and teachings. The version was later used for schooling when it started in Fiji. This version became the standard Fijian language as its use extended to religion and also to the early days of education. The new version had prominence and the print form was visible. It had an orthography. It was the language with which to write for the indigenous Fijians. It was and is the language of communication and the media. It is used between speakers of different communalects. It is the other language generally spoken by indigenous Fijians apart from their own community language. The other official languages spoken in Fiji are English and Hindi although the Fiji Hindi which is a creole spoken in Fiji is widely spoken by Indo-Fijians. Fiji's population in 2017 was 884,887¹ however

¹ <https://www.fiji.gov.fj/Media-Centre/News/Fiji-Bureau-of-Statistics-Releases-2017-Census-Res>

the itaukei or indigenous Fijian population was last indicated in 2012 as 511,838 of the 858,038 which was total population². It can be assumed that the same number or less speak SF. For the purpose of this paper I refer to the 300 Fijian communalects as minority indigenous languages (MIL).

Indigenous languages in Vanuatu, Solomon Islands, New Caledonia and Papua New Guinea are similar to the indigenous Fijian language except that the languages of these countries are languages by linguistic definition and not communalects or dialects where there would be some degree of communicative understanding between neighbouring dialects and communalects. The number of indigenous languages is many, approximately 138 have been recognised in Vanuatu³, 76 in the Solomon Islands⁴, 28⁵ in New Caledonia, and 832 living languages of Papua New Guinea⁶.

The standard or lingua franca of the people is a creole while the official languages which include the creoles are the international English or French languages or both as in Vanuatu. There is Bislama in Vanuatu, Pijin in Solomon Islands, Tok Pisin and Hiri Motu in Papua New Guinea. The numerous indigenous languages are minority languages as well in their respective countries as the number of speakers are few. The major languages would be the official languages including the creoles.

The languages spoken in the Polynesian and Micronesian islands present different language situations from the Melanesian islands. Per island country, the languages spoken are usually one or two apart from the English or French official language. In these contexts, the indigenous languages would not be minority but majority as most of the population would speak the one indigenous language.

3. Minority Indigenous languages

As described above where there are MIL, there are other languages such as the creoles, the standard and the official languages. The lingua franca have become the standard languages leaving the other indigenous languages as non-standard. Standard languages are then given status as the national language and the official language. They are used in government, education, media and in communication. With these functions they have been developed and have writing systems or the orthography. There are some publications written in them. There are bilingual dictionaries and monolingual

dictionaries. These languages have been researched and written about.

The minority languages do not have the same number of speakers or the same level of development as the standard languages. As minority and non-standard, these languages dialects would not have had the same exposure and visibility as standard dialects. Schools and educational curriculum would teach on the standard dialects, the MIL dialects do not share the same recognition. They may exist orally without an alphabet or a writing system. In some cases speakers would use the English alphabet to attempt to write their language. NIL are under developed and under researched although they may be the linguists' delight.

In the language contexts as above the international language takes over the place and space of the indigenous languages in education, media and communication. Standard and international languages further downgrade non-standard dialects however these MIL are the voices and souls of their speakers and are popularly spoken, recited, sung, chanted, hummed and learned as mother-tongues.

4. The Challenges Faced with Minority Indigenous Languages

It is often assumed that the non-standard status of MIL will give way to their becoming extinct as they depend on their speakers to speak them and to transfer language and communication skills to the next generation of speakers. However certain social movements within countries may have given rise to the change in thinking towards language, culture and heritage as vital factors of ethno-identities. People have become more aware and conscious of language and culture and express factors that influence language change and loss. The desire to maintain indigenous languages as forms of identity are expressed in the social media and also in the letters to the editor of local newspapers.

The widely accessible social media forms of Facebook, Twitter, Instagram, Tik Tok and the like have also brought in creativity and innovation in using language to express ideas and to communicate in public. Apart from English, MILs are also used to express in these forums so reports, recounts, feelings, likes and dislikes,

²http://prdrse4all.spc.int/system/files/1.2a_census_pop_by_ethnicity_0.pdf

³ <https://www.worldatlas.com/articles/what-languages-are-spoken-in-vanuatu.html>

⁴ <https://www.worldatlas.com/articles/what-languages-are-spoken-in-solomon-islands.html>

⁵http://www.world-of-islands.com/Infos/Civilisation/Langues_NC_en.htm

⁶ <http://valtermoniz.tripod.com/papuanewguinea/id12.html>

attitudes and many more can be freely read, interpreted and listened to.

There is creativity in writing and expressing. Phonemes peculiar to MIL are written according or close to the SF writing system and for speech sounds not in SF, the English letters are used or the users would guess the letters to use. Words are shortened, words switch codes from one language to another and standards are ignored. Since MIL are non-standard, the social media has given the speakers avenues for self-expression. As communalects, creoles, national and official languages become visible through social media outlets, conservative language authorities have become concerned about safeguarding indigenous languages.

Similarly, radio programs that broadcast using standard indigenous languages have become creative in their language content with the aim to target the younger generations. The announcers do not limit the language they use nor the content of radio programs to SF as they would create awareness on the other MIL even lesser known pidgins. The radio programs can also be accessed by Fijians living abroad through linking with the internet.

The internet and internet-based technologies have made it possible for languages in particular the MIL to feature outside of their usual geographical locations. However, there are challenges to the making and the maintenance of these language technologies as platforms for language. Having an orthography makes the work easier for both linguists and technologists. A MIL would not necessarily have an established orthography.

Secondly, there may be linguists and there may be technologists but having language technologists are hard to come by. The setting up of websites, language learning technologies, e-books and apps have and should always involve experts from both fields. Needless to say, these experts and the program technologies themselves are quite costly to create as, in many cases, experts would need to be brought in from developed countries. The greatest challenge is faced when deciding whether funds should be spent on MIL with fewer speakers than on standard indigenous languages including the creoles. Either way, maintaining languages through the use of digital technology and the internet is costly. Owners of MIL do not have funds to create and maintain language technologies. In most cases, they would not see the need for making their languages accessible to

people outside of their language and culture space using digital technology. Although concerned institutions may provide funds, plans to maintain and monitor language technologies need to be viable and feasible financially.

The resource base of small island countries is limited and has risks. In most cases there would be more pertinent national issues that need relief and funds particularly so now with the impact of climate change and social upheavals creating havoc in communities and national plans. These take priority over MIL initiatives. Another consideration is that intellectual property and copyright approvals on indigenous languages ought to be negotiated prior to implementation because communalects as indigenous languages are regarded by their speakers and owners as cultural property. These measures also rule out misappropriation.

The iTaukei Trust Fund Board (TTFB) is involved with a number of language projects that use digital technology⁷. The two major ones are the SF dictionary App and the Fijian Language and GIS Application. The SF dictionary App is funded by TTFB however the App is now not available on the internet and the overseas based App programmers have severed communications with TTFB. As a highly technical dictionary App both linguistically and technologically, there needs to be more work implemented to keep the project relevant and interactive. In this case the return on funding has not been satisfactory.

The second project investigates the mapping of communalects using GIS. It is titled 'Fijian language and GIS Project'. The project aims to create a language atlas of the Fijian communalects using the geographic information system (GIS), and the second is to develop methods to relate linguistic data to non-linguistic factors that have had influences on people's language use which resulted in language change. The project is spearheaded and principally funded by the National Museum of Ethnology in Osaka, Japan⁸. Specific experts have been engaged and are currently developing the interface. It is also intended that a web-based interface will be developed which aims to show the relationship of linguistic with non-linguistic factors on communalects.

Other language projects that require the use of audio-visual technologies undertaken by TTFB include storytelling and comic animation, and drama performance and video productions. While costs are a major consideration and narrows the scope of projects, the completed products have

⁷<http://www.itaukeitrustfund.com.fj/>

⁸ Kikusawa, R. Principle Investigator (National Museum of Ethnology, Osaka), Paul Geraghty (University of the South Pacific), Hirofumi Teramura (National Museum of Ethnology, Osaka), Susumu Okamoto (Tokyo University of Foreign Studies), Fumiya Sano (University of Kyoto), 257

John Lowry (Massey University, New Zealand) and Apolonia Tamata (iTaukei Trust Fund Board).

been fruitful. The drama texts and productions are currently being used as literature resources in schools. However, the aim to portray folk tales as animation is put on hold as the cost is exorbitant from Fiji's perspective and the expertise not available locally.

The documentation and storage of data on language, culture and heritage undertaken by government and non-government institutions alike are often faced with challenges as there is a lack of technical expertise and know-how related to the appropriate information and knowledge management technology. The development of systems to be used with databases, servers, user interfaces, back-end to name a few including their maintenance and upkeep are all too new where small island nation language documentation and preservation is concerned. These are pressing issues faced for instance by the Institute of iTaukei Language and Culture, the Fiji Museum, the National Trust of Fiji, Fiji Archives and the Department of Heritage and Arts. The question arises as to whether one digital technology system could feasibly accommodate all the data in one small island nation to reduce labour and costs as after all these institutions collect data from the same indigenous minority groups.

5. Conclusion

Funding is definitely not readily available for MIL to use language technologies. Linguists and language technologists for MIL are hard to come by in small island countries and when they are found, keenness and commitment to the projects by foreign experts do not last. Project owners and funders need to be realistic as well so that projects meet their objectives including the sustainability of projects. The management and funding of technologies in a number of institutions serving the same indigenous communities ought to be considered so that an ideal solution is found and one that will benefit both the targeted communities as well as enhancing institutional technological functions. The challenge also rests with MIL speakers and owners as to how much they want their languages to be documented, developed, accessible, visible, relevant and safeguarded.

6. Bibliographical References

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